



**EFFECTS OF MULTIMODAL TASKS  
ON CRITICAL READING ABILITY AND PERCEPTION  
OF THAI EFL TERTIARY STUDENTS**

**BY**

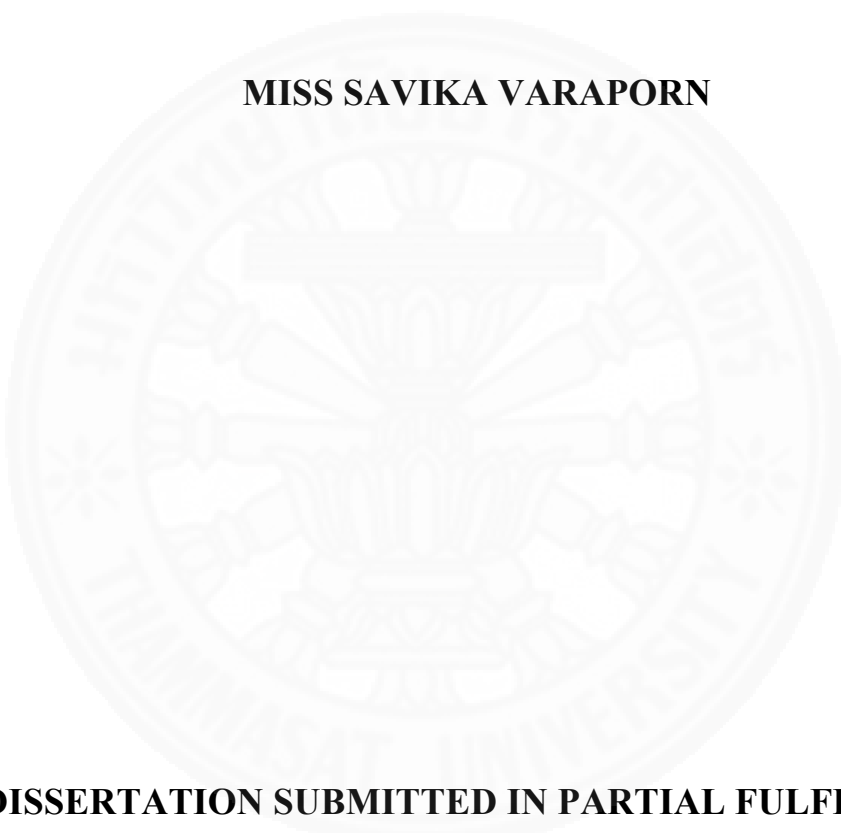
**MISS SAVIKA VARAPORN**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN ENGLISH LANGUAGE TEACHING  
LANGUAGE INSTITUTE  
THAMMASAT UNIVERSITY  
ACADEMIC YEAR 2018  
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DISSERTATION

BY

MISS SAVIKA VARAPORN


ENTITLED

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was approved as partial fulfillment of the requirements for  
the degree of Doctor of Philosophy (English Language Teaching)

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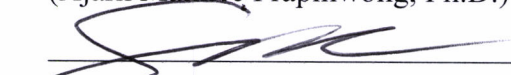
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Thesis Title	EFFECTS OF MULTIMODAL TASKS ON CRITICAL READING ABILITY AND PERCEPTION OF THAT EFL TERTIARY STUDENTS
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Major Field/ Faculty/ University	English Language Teaching Language Institute Thammasat University
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### **ABSTRACT**

This study investigated the effects of multimodal tasks on critical reading ability and perceptions of Thai university students. To compare effects on critical reading ability, students were randomly assigned to experimental and control groups and assessed with pre- and post- critical reading tests. Furthermore, reflective journals and semi-structured interviews were used to gain in-depth information about students' perceptions towards the multimodal tasks. The findings revealed that the experimental group with the treatment of multimodal tasks outperformed the control group in critical reading test scores. Furthermore, evidence from the reflective journals and semi-structured interviews showed that students generally had a positive perception of the multimodal tasks. The multimodal tasks not only assisted them in proposing critical reading ideas and fostered analytical thinking skills, but also enhanced intrinsic motivation and learning autonomy.

**Keywords:** critical reading, English as a Foreign Language (EFL) reading, Learning by Design, multiliteracies, multimodality in English language teaching, multimodal tasks

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# CHAPTER 1

## INTRODUCTION

This chapter gives a general background of the study. It summarizes the topic being investigated by presenting the statement of the problem, followed by a compilation of attempts to find a solution and identify the existing research gaps. The research objectives and research questions which this study is based on are also introduced. Finally, a list of operational definitions of key terms that are used throughout this paper is provided.

### 1.1 Background of the Study

English has long played a vital role in different aspects of the lives of people in many countries. It is used as the medium in almost all domains of communication such as for trade, diplomacy, technology, international relations, economic prosperity, and the pursuit of education. Especially in the era of globalization, English has undeniably gained more importance since it has become one of the indicators of a country's economic growth and productivity.

Thailand is another country that flows with the wave of globalization. As there have been an increasing number of international companies running businesses in the country, the power of English language is greater than ever. Apart from technical expertise and interpersonal skills, English is also valued by the current job market in Thailand as a required competency in the recruitment process of new employees. Successive Thai governments have realized that the wealth of the nation depends largely on the capacity of Thai people to function effectively in the international context. A lot of effort and vast amounts of money and resources have thus been invested in the educational sector with the ultimate aim to improve people's proficiency of English.

In Thailand, the status of English language is that of a foreign language, which has been studied in schools for more than a century. According to Darasawang

(2007), the teaching and learning of English began during the reign of King Rama V when more foreigners started to come to Thailand. His Majesty King Rama V contemplated that the modernization and progress of the country required the knowledge of English. Since then, the language has become the most prestigious and widely-taught foreign language in formal educational institutions and language schools in Thailand. Also, it has been used as a medium of instruction at bilingual schools, international schools and colleges, and in international programmes at undergraduate and graduate levels in both public and private universities.

The Thai government, through the Ministry of Education, provides policies for English education in Thailand. According to the Basic Education Core Curriculum (revised in A.D. 2017), English is a compulsory foreign language subject for students at all levels, starting from primary and continuing to tertiary education. The goal of English language education in the country is to prepare Thai students for competent communication through the three emphasized areas.

The first area is language skills, which are considered key parts of communication. Since communication is a two-way process that entails the abilities to produce and receive information, productive skills and receptive skills are highlighted in the curriculum (The Basic Education Core Curriculum, A.D. 2017). Thai students are required to learn the four English language skills; reading, writing, listening, and speaking, concurrently.

In addition to the language skills, knowledge of the culture of English speaking countries is another feature taught. The awareness of cultural norms and practices of etiquette brings good impressions to interlocutors and can lead to effective communication. The culture is taught, along with the language skills, so that Thai students are able to use the language in an appropriate manner and in the proper situations (The Basic Education Core Curriculum, A.D. 2017).

The last emphasized facet of English language education in Thailand is to develop the desirable characteristics of an English language user. Skills such as critical thinking, technological skills, interpersonal skill, and work skills can add



value to language learning and contributes to the self-development of students (The Basic Education Core Curriculum, A.D. 2017). Therefore, Thai students will also be equipped with those skills while enhancing their English language competency.

Among the three aspects, language skills are the most important because they are fundamental to the others. Of all the four language skills, reading appears to be the first emphasized skill for students who learn English as a second (ESL) and foreign (EFL) language (Grabe & Stoller, 2002).

### **1.1.1 Reading and Its Benefits**

Reading is defined as an active process that requires interaction between readers and what they bring to a text in order to construct and interpret meaning (Grabe, 1991; Smith, 1994). Based on several scholars' viewpoints, the main objective of reading is for the readers to gain comprehension. While it is a skill, literature suggests that there is no absolute way for readers to read. Different readers have different techniques to approach a reading text. In real reading practices, they incorporate the processes of obtaining knowledge from many different sources. Not only do they utilize the knowledge of phonemes, phonics, spelling, and vocabulary in order to construct meaning, but they also depend on their knowledge and experiences of the world to make sense of what they read (The US National Reading Panel, 2000). This makes the reading process interactive in a sense that divergent information processing can be employed simultaneously.

In the academic context, reading is considered a key to successful learning. It is a means to gain information and a necessary skill that affects students' learning experiences and performances. Loan (2009) stated that the academic growth and personal success of a student mainly depends on grasping, evaluating, and utilizing the information collected through reading. Not only does reading help students become familiar with the patterns of grammatical structures of the language, but it also allows students to acquire content knowledge in a particular specialism (Anderson, 2003).

Furthermore, a strong relationship between reading and learning success has been widely recognized. Carnine and Carnine (2004) asserted that English language learners who are competent in reading are more likely to learn well, while those who struggle are much less likely to be as academically successful as those strong readers.

Due to its tremendous benefits, there is a prolonged interest in promoting reading as an important means of language development for English language learners in many countries, including Thailand. Reading is one of the English language skills that Thai students, especially those who study at tertiary level, need to excel in for various reasons.

Beginning with academic success, English reading is important for Thai students who wish to engage in postgraduate study. Regardless of where they study, students at the postgraduate level are undoubtedly required to read extensively (Darasawang, 2007). Apart from the textbooks prescribed in their disciplines, reading from other sources such as newspapers, journals, and research articles are also mandatory for the students to acquire knowledge and gather information related to their fields of study in order to broaden their horizons (Rothong, 2013). Since these sources of information are usually published in English and rarely translated into Thai, it is inevitable that they read in English. It can be said that Thai students, especially in tertiary level, need to be able to comprehend English reading materials well. Otherwise, they are likely to face some academic difficulties.

For professional development, English reading is also crucial for the students' future employment. Due to the expanding number of international companies in Thailand, Thai workers will be required to respond to business correspondence such as emails and memos written in English, or keep up with the latest global issues from English newspapers for their future work. These work-related tasks cannot be successfully achieved without English reading ability. As Nitsaisook (2003) once said, English reading competency is not an exception but a basic requirement in all kinds of careers and professions. In order to gain competitive status in the labour

market, it could be not be wrong to conclude that Thai students must, therefore, be able to read in English.

From observation, the educational system in Thailand seems to heavily emphasize the benefits of reading as the ability to extract information. In many ways, this makes sense. Reading to extract information allows students to absorb the raw materials of factual information as quickly as possible. It is a type of reading students must engage in frequently.

However, researchers and scholars around the world have recently expressed concerns over text complexity and fluidity in the 21<sup>st</sup> century. They argued that this could cause problems to inexperienced readers, especially those who are students. Surrounded by an endless amount of information sources, readers in this century need a skill that helps them tackle those texts wisely. The skill must prepare them to be more fact-oriented, analytic, open-minded, and inquisitive. In this regard, critical reading has come into play.

### **1.1.2 Importance of Critical Reading in the 21<sup>st</sup> Century**

Critical reading is a high level reading proficiency that requires analysis and evaluation skills, including several reading strategies on the part of readers, for making judgments about the trustworthiness of a reading text (Davies, 1995; Miller, 1977; Smith, 1963; Spache, 1964; Tierney & Pearson, 1994). Consisting of several sub-skills such as the ability to recognize an author's purpose, distinguish facts from opinions, and make inferences, critical reading helps readers to manipulate data and analyze information before making a final decision as to whether what they are reading is true, useful, or reliable (Kereluik et al, 2014). Critical reading is significantly different from reading to extract information in the way that it entails rational thinking in the reading process.

The ability to read critically is a precious commodity in the 21<sup>st</sup> century. The overflow of news and information in this digital age perhaps best describes the significant roles of critical reading in this digital era. The adoption of Information

Communication Technologies (ICT) such as the Internet makes the access of numerous knowledge and information sources easier for everyone than it ever has been. With a single mouse click, anyone can simply read anything posted online. Unlike most traditional information media like books or published documents, no one has to approve such online contents before they are made public. The contents found online can exist in many degrees of quality and reliability. In order to be information-wise, readers need to be aware that information and knowledge are not identical. In fact, what they must do is to approach any information sources with suspicious minds.

This phenomenon poses a great challenge to the realm of education. It has expanded the perception of reading far beyond the skills of encoding and decoding texts. That is to say, just because readers can decode words does not mean that they have enough, complete, and correct understanding of what they are reading (Kern & Schultz, 2005). In terms of classroom teaching, teachers are encouraged not to stop at preparing students for merely answering examination questions but offer a task that challenges them to think analytically and become a critical reader (Alqatanani, 2017). With the increase in the speed and the ways in which information is transferred, it is crucial to empower students to be better learners and to assess what they read. The students need to be aware that online information is not always accurate. Thus, they should be trained how to approach any text critically.

In the education system of many countries, critical reading has been given a prominent role, whether it is for the first language (L1) or the second language (L2) reading. The same is true for Thailand where English is considered a foreign language. For Thailand, critical reading has been added to the Thai national core curriculum since B.E.2544 or A.D. 2001 as one of the ultimate goals of education. It states that Thai students and graduates are obligated to excel in the ability to reason, criticize, and evaluate texts. For over two decades, the country has attempted to produce a workforce that can interpret data and make rational decisions in an online environment overly saturated with information (Sompakdee & Pojananon, 2011).

## 1.2 Statement of the Problem

In spite of the necessity of critical reading, extensive research has revealed the failure to critical read among Thai EFL students. Simply put, most of the Thai EFL students cannot read critically. For instance, the study of Attaprechakul (2013) found that Thai EFL tertiary students had some difficulties in making inferences from the texts they read, which is an aspect related to critical reading skills. Correspondingly, findings from the studies of Sawangsamutchai and Rattanavich (2016) and Srisirasasiporn (2014) also yielded similar results. They found that Thai university students failed to read in a critical manner. What the students did was to take whatever was presented to them as facts, without further analyzing a text from different aspects. They could not identify the tone of the article as well as discover the attitudes of the writers.

As indicated in several previous studies, the cause of the critical reading problem in Thai EFL students lies in a traditional teaching approach. In common with many other EFL countries, the methods of teaching reading in Thailand have been influenced by behaviourist theory. Up to the present time, most schools and universities in Thailand have still utilized the traditional grammar-translation teaching approach in teaching reading (Chomchaiya, 2014; Kongkert, 2013; Sawangsamutchai & Rattanavich, 2016; Srisirasasiporn, 2014; Sunaratn, 2013). Teachers are the ones who structure the learning environment through various antecedents and consequences. They take the role of being the translator of the text and the provider of meaning and interpretation. On the other hand, students take the passive role of being recipients of knowledge. They wait for knowledge from their teachers.

The grammar-translation approach has been criticized by several educators as ineffective to enhance critical reading ability of students. What is commonly found in a grammar-translation classroom in Thailand is that the teacher reads and translates a reading text sentence by sentence for the students. All focuses are on the teacher, who is directive and rooted in authority. This kind of pedagogical approach does not provide many opportunities for students to train their critical thinking and analytical

skills. They mostly rely on their teachers' interpretations of texts. This leaves the students less motivated in learning English reading (Sawangsamutchai & Rattanaich, 2016).

Moreover, when it comes to the part of students, reading activities and tasks posed to them are likely to incline towards the traditional paper-and-pencil routine. This does not provoke much higher-order thinking and critical reading (Chayarathee, 2003; Punthumasen, 2007; Tamrackitkun, 2010). Rather, it overly emphasizes the ability to summarize ideas and to retell information. Students have no active participation in stimulating their critical stances. In consequence, they end up being unable to read critically

The same problem also exists in the researcher's classroom. Over years of teaching an English Reading course at the university level, the researcher has observed that the majority of students had difficulties in improving their ability to make inferences and form conclusions, which are the sub-skills of critical reading, to the desired level. Lacking the ability to read critically led to several further problems in their academic life since, at the university level, students are expected to read texts and display their critical reading ideas in their assignments and through their assessment systems. Consequently, the students would become discouraged by the lack of progress, resulting in a constantly reduced motivation to learn.

In order to confirm that the problem was not exclusive to the researcher's practice, a preliminary investigation was carried out through interview sessions with other teachers who teach the English Reading course, in order to obtain the baseline data on their current practices and concerns about the problem. The results confirmed the existence of the problem. Apart from the traditional grammar-translation teaching method, the data from the preliminary investigation revealed that reading assignments and tasks were another issue. They focused more on the ability to summarize ideas and to retell information than to tap into higher-order reading skill. More importantly, the fact that the assignments and tasks were restricted by the linguistic ability of the students to write an answer posed another problem. That is, it hindered students from

confidently proposing and expressing their critical reading ideas, especially those who had a limited vocabulary range and poor writing skill. This resulted in the students' lack of progress and motivation.

### **1.3 Proposed Teaching Approach: The Integration of Multimodality**

Since critical reading plays an important role in students' academic life, the problem must not be overlooked. Teachers are considered one of the key mechanisms for teaching and learning efficiency. Thus, they are obligated to find an effective solution to improve the critical reading ability among students. Several attempts have been successful in doing so. For example, Tangpinijkarn (2015), Srisirasasipon (2014), Thonglon and Sroinam (2014), Srisud (2013), Uaei-chimlee (2007), Wannakhao (2006), Boonplong (1998), and Lekvilai (1996) have tested whether the teaching methods such as Know-Want-Learn-How (KWLH) technique, Effective Reading Skills in Content Areas (ERICA) model, Survey, Question, Read, Recite, and Review (SQ3R) technique, research-based learning approach, and reader response-based approach could be adopted to enhance critical reading ability of Thai students.

Among the many attempts to come up with models and approaches to promote critical reading skills, recent studies have taken the characteristics of today's students into account and have introduced the use of multimodality.

Multimodality refers to the use of two or more modes of communication to construct meanings, which results from the change in the communication landscape in the 21st century. It comprises linguistic, visual, audio, gestural, and spatial modes (The New London Group, 1996). Linguistic mode means vocabulary, structure, and the grammar of oral and written language. Visual mode refers to the use of colours, vectors, scene, perspective, and viewpoint in both still and moving images. Audio mode is the rhythm of music and sound effects. Gestural mode contains the physical act of signings and a wide range of movements. Spatial mode is direction, position of layout, and organization of objects.

When considering the way in which people communicate, everything is now multimodal. The advancement of information and communication technology (ICT) allows people to make use of all kinds of modes and mediums in imparting and exchanging information. Communication is no longer limited to language or perceived through paper-based media. The modes such as audio, visual, and spatial are also relevant and serve different functions. They do not subsidiarily expand, exemplify, or modify the language but work simultaneously with it in constructing meaning. (Jewitt, 2008; Kress, 2003; Kress & van Leeuwen, 2001).

This change in the trend in communication contributes to the need to reconceptualize how teachers teach students. In the context of English language teaching, researchers and educators have a particular interest in how multimodality or multimodal-based teaching approach can serve to motivate today's students and enhance their learning performances.

At the present time, students are digital natives. They read and produce multimodal kind of texts that involve a complex interplay of language, images, and other graphic or sound elements to a much greater extent than just printed texts (Prensky, 2001; Prensky, 2005). Because of this, the perception of literacy in today's world has changed. Literacy should not only be about a solely linguistic accomplishment. Instead, it needs to encompass a vast array of other semiotic modes or multimodality in order to best engage the students and to respond to the recent requirements of the world at large (Siegal, 2012).

The integration of multimodality into pedagogical practice, or multimodal-based teaching approach, implies a change of paradigm regarding how meanings are represented and constructed. This new paradigm is implemented when teachers shift from a language perspective to a modal perspective that highlights the use of multiple modes (Kress & Van Leeuwen, 2001). Unlike the traditional classroom, the integration of multimodality is student-focused and offers the students a chance to take control and to make a choice about their learning. For the students who are



discouraged by the linguistic-oriented teaching, multimodality allows them to experience learning in ways that they are most comfortable with (Jewitt, 2008; The New London Group, 1996). The students can engage in practices that widen their perspectives on literacy and go beyond only the language aspect itself. Writing with perfect grammar is no longer the only indication of intellectuality of the students. Multimodality facilitates various other means that the students can adopt when they engage in classroom learning and tasks. This would motivate them to learn more.

Furthermore, the integration of multimodality takes into account the students' lifeworld experiences and connects them to classroom learning. Daniels (2001) suggested that learning should be closely related to experiencing life. For the students to be engaged in a subject, they need to situate themselves and connect their everyday lives to the learning process. At present, students are living in a multimodal world, being surrounded by the use and production of multimodal communication that features the use of photos, graphics, sounds, and icons (Serafini, 2015). Integrating multimodality into the teaching approach and designing the kind of activities or tasks that embody multimodality is more likely to actuate the interests of the students of today's world than the traditional approach. When the students perceive that what they do in a classroom is something beneficial to their lives, they would be intrinsically motivated and feel more comfortable in learning (Albers, 2006; Haren, 2010; Vaarala & Jalkanen, 2010).

More importantly, the integration of multimodality could promote critical thinking skill. The review of the literature suggested that the use of multimodality could aid reflective, generative, and higher-order thinking skills. Unlike the traditional teaching approach where teachers have all authority, the key principle of multimodality-based pedagogy is to ensure that active participation and intellectual quality of students are scaffolded (Haren, 2010). The focus would be on the students who have to respond to a range of tasks such as thinking, discussing, problem-solving, synthesizing, theorizing, or drawing conclusions. This is a catalyst for them

to gradually scaffold and develop their higher-order thinking and analytical skills that are useful for critical reading.

To sum up, after an extensive review of literature, this study sees that the integration of multimodality would bring many advantages to the enhancement of critical reading ability of Thai EFL students. Therefore, it would like to propose the integration of multimodal tasks as an alternative to the traditional pedagogy of teaching critical reading.

#### **1.4 Needs for the Study**

There have been an increasing number of studies conducted in several EFL contexts. For instance, Verhoeven and Perfetti (2008), Vaarala and Jalkane (2010), Zarei and Khazaie (2011), Bisson, Van Heuven, Conklin, and Tunney (2014), Boshraadi and Biria (2014), Baharani and Ghafournia (2015), Carcamo, Cartes, Valesquez, and Larenas (2016), and Lirola (2016) have examined the use of multimodality and confirmed its effectiveness in enhancing students' English language learning achievements and understandings of subject contents.

However, from investigation, there is far less discussion on pedagogical implications that are specific enough to be useful in the teaching of critical reading. Several researchers have a particular interest in how multimodality could contribute to the learning enhancement and motivation of students. Therefore, a great need exists to respond to such research gaps and explore the effectiveness of integrating multimodality into the teaching of critical reading.

Furthermore, research on critical reading in Thailand that is conducted in the tertiary level is still needed. It is noticed that the previous studies on critical reading in Thailand were mostly conducted on students who were studying in the grade school level. This leaves a gap in terms of the research context.

Another opportunity for this study is concerned with the research design. It is noticed that most previous studies regarding critical reading in Thailand focus only on one dimension of quantitative study, which is the one group pre-test post-test

experimental research. Thus, adding a control group for comparison would provide a more robust design in investigating the issue.

To bridge these research gaps, this study was conducted with the expectation that researching incorporating multimodal tasks when teaching critical reading would fill in these gaps. It examined the effects of multimodal tasks in enhancing critical reading ability of Thai EFL tertiary students. Students participating in this study were divided into two groups. One group was taught critical reading based on the multimodality-based pedagogy and assigned multimodal tasks as the intervention, while the other learnt it in a conventional way and performed a traditional task. The learning performances of the two groups were compared with various tools in order to investigate the effectiveness of the proposed teaching approach. Also, the perceptions of the students in the experimental group were investigated.

### **1.5 Objectives of the Study**

This study aims to investigate the effects of multimodal tasks on critical reading ability of Thai EFL tertiary students. Its objectives are to:

- 1.5.1 measure the extent to which multimodal tasks enhance Thai EFL tertiary students' critical reading ability;
- 1.5.2 explore the students' perceptions towards multimodal tasks.

### **1.6 Research Questions**

The research questions are as follows:

- 1.6.1 To what extent do the multimodal tasks enhance critical reading ability of Thai EFL tertiary students?
- 1.6.2 What are the students' perceptions towards the multimodal tasks?

### **1.7 Significance of the Study**

Based on the solid design framework and data collection and analysis from a multitude of perspectives, the findings of this study redound to different areas of critical reading pedagogy.

First, the findings will help formulate the knowledge about the pedagogical method of English critical reading for its practitioners. In this research setting, teachers of the Fundamental English Reading course will be informed of the effects of multimodal tasks on students' critical reading ability and perceptions. Furthermore, English language teachers from other institutes may gain another perspective on conducting critical reading courses and take the findings of this present study into account in resolving the critical reading difficulties in teaching critical reading to Thai students.

For students, this study is expected to provide an alternative means of learning that can improve their critical reading ability.

Next, as a teacher and a researcher, this study provides a good opportunity for professional development. It paves the way for the teacher-researcher to become aware of the problem and explore options in order to improve their practice and that leads to a better learning experience for students. The study, situated in the actual classroom, is the most practical way for the teacher-researcher to improve their teaching with systematic enquiries into their own teaching context

Lastly, to a larger extent, the findings of this study provide some insights to the instructional pedagogy of similar context. The merit of the rich and valid data collected from the natural setting, in which the actual teaching and learning take place, is that it provides concrete examples that are resourceful to help curriculum developers in establishing effective critical reading curriculum that best suit the current textual demand.

## **1.8 Operational Definitions of Key Terms**

### **1.8.1 Critical Reading Ability**

Critical reading is a high level reading comprehension (Miller, 1977) that requires analysis and evaluation skills, including several reading strategies on the part of readers, for making judgments about the trustworthiness of a reading text (Bean, et al., 2002; Davies, 1995; Schwegler, 2004; Smith, 1963; Spache, 1964; Tierney & Pearson, 1994).

Based on the domain of the course being investigated, critical reading ability in this study refers to the ability to make inferences from a reading text. Making inferences is a comprehension strategy used by proficient readers to read between the lines. Not just making a wild guess, critical readers have to make a judgment that can be supported. The ability to make inferences is considered higher-order reading because it entails making connections and drawing conclusions about the text's meaning and purpose (Tierney & Pearson, 1994).

### **1.8.2 Multimodality**

Multimodality refers to the integrated use of various semiotic modes in texts and communicative events to meaning making and in literacy activities (Kress, 2010; New London Group, 1996).

### **1.8.3 Multimodal Tasks**

In this study, the multimodal tasks were designed to facilitate the students in enhancing their critical reading ability. The multimodal tasks instructed the students to create multimodal artifacts in order to represent their understandings and convey their critical reading stances towards a reading text.

### **1.8.4 Perception**

In education, student perceptions refer to the values, opinions, beliefs, attitudes, perspectives, and cultural backgrounds of individual students and groups of students, and to instructional approaches and techniques that are based on student

choices, interests, passions, and ambitions (Fielding, 2001; Mitra, 2003; Rudduck & Flutter, 2000, cited in Manefield et al, 2007).

In this study, students' perceptions were the students' opinions, feelings, attitudes, and reflections that they have towards the multimodal tasks.

### **1.8.5 Experimental Group**

The experimental group refers to the participants who received an intervention (treatment). In this study, the critical reading lessons designed for the experimental group were derived from the Learning by Design framework, which is a multimodal-based pedagogy. The participants in the experimental group scaffolded their critical reading ability while, at the same time, learnt how multimodality contributed to meaning making and literacy activities. They practiced how to approach a reading text, both in traditional-form and multimodal-form, in a critical manner. They were assigned the multimodal tasks, in which they were instructed to best convey their critical reading stances using various modes of multimodality

### **1.8.6 Control Group**

The control group was the participants who did not receive an intervention (treatment). They learnt critical reading through the traditional pedagogy. They read traditional-form reading texts and did traditional tasks that required them to write their critical reading stances towards reading texts.

## **1.9 Scope of the Study**

This study is limited to 63 Thai EFL university students regardless of their major subjects and faculties at one autonomous, public university in Bangkok, Thailand. However, its practical implications and the concerns addressed in this research have a potential for generalization on the teaching of reading with other groups of Thai EFL tertiary students in other universities countrywide as well as in other EFL contexts.

### **1.10 Organization of the Remainder of Study**

The following is an overview of the organization of the remainder of this study. The subsequent chapters in this dissertation are as follows.

Chapter 2 presents a review of relevant literature, which covers two major subjects: critical reading and multimodality. In addition, a discussion of empirical studies on relevant topics is also provided. To conclude the chapter, the pedagogical framework that sheds light on the development of the lesson plans based on multimodal tasks is introduced.

Chapter 3 contains the methodology used for this research study. It introduces the research setting and the research design, which is a mixed-methods model. The context of the study describes the research setting and the population and samples that will be selected to participate in the study. Additionally, this chapter specifically outlines the process of the development of the data collection instruments. It also includes various phases of the data collection procedure and describes the components applied in the data analysis, as well as the methods used to assure the validity of the study. Finally, ethical issues are discussed.

Chapter 4 organizes the presentation of quantitative and qualitative data analysis and reports for each of the three research questions. It presents a statistical analysis for quantitative data as well as thematic analysis for its qualitative counterpart. Themes that emerged from the qualitative data will be also presented and discussed in details.

Chapter 5 presents a summary of the study, which includes a brief description of its purpose, a review of the research questions that guided the study, a synopsis of the related literature review, a description of the methodology, and the findings. The summary is followed by a discussion of the findings, which are presented through a structured review of answers from the three research questions. This chapter also includes a discussion of the recommendations for further studies. The theoretical contribution of this study to the existing body of literature will be also addressed in

the implications section of this chapter. Finally, a brief conclusion of the study is presented.

Lastly, references and appendices are included in this dissertation. Appendices contain copies of the research instruments such as lesson plans, critical reading tests, informed consent documents, and other documents that were necessary to the development and data collection of this study.





## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter presents the literature related to the current study. It starts with the definition of reading proficiency and topics related to it such as models of reading. After that, critical reading and its roles in the 21<sup>st</sup> century are elaborated upon. The next part discusses the challenges of teaching critical reading in Thailand and problems that exist. Attempts to find a solution are then presented via a review of previous studies.

Furthermore, the chapter examines multimodality and its offspring, the pedagogy of multiliteracies, in order to gain insights into their potential function of enhancing students' critical reading ability. Previous studies regarding multimodality in English language teaching are also reviewed. This chapter ends with a presentation of the pedagogical framework that sheds light on the design of the intervention in this study.

#### **2.1 Definitions of Reading**

Reading was originally defined as a passive skill, in which spelling and phonics were paramount (Chen, 2005). Reading instruction was then focused on decoding the orthographic symbols. However, this traditional view of reading was challenged by the psycholinguistic view of reading. In the early 18<sup>th</sup> century, researchers discovered that reading is actually an active process of thinking where readers take an active role in bringing their knowledge of the world to derive meaning (Goodman, 1976). The interaction between readers and texts was found to play an important role in the construction of meaning. This does not mean that the decoding skill is excluded, as Orasanu and Penney (1986) clarified that decoding is more of a means to construct meaning, rather than the end in itself.

Extensive literature describes reading as an active process in which readers interact with texts to construct meaning. It is a process of gathering information from

the printed page that also involves bringing in schemata of readers to interpret the meaning from a text (Grabe, 1991; Smith, 1994). Moreover, reading always entails thinking and reasoning, in the sense that readers activate their prior knowledge and make connections to a reading text in order to form comprehension (Goodman, 1970). Based on such definition, it is agreed that the ultimate goal of reading is comprehension.

Due to the fact that reading requires the interplay between readers and texts, individual diversities may result in different reading experiences. Based on the psycholinguistic view, the variation of the background knowledge among readers affect interpretations of texts (Goodman, 1976; Orasanu & Penney, 1986). In other words, background knowledge of readers is as important to comprehension as the information provided in the text. Different readers with different schemata can develop different understandings of texts. Also, they may employ different information processing in reading. In this regard, there has been a prolonged interest in exploring the world of reading. Several models of reading are proposed with an attempt to understand how people read.

### **2.1.1 Three Models of Reading**

This part explains in further details models of reading. Researchers have established a general understanding of how a text is processed. Three main models of reading that provide a foundation to a reading pedagogy are the bottom-up, top-down, and interactive models.

The two models that have long been recognized in the teaching of reading are the bottom-up and top-down models. The bottom-up model in reading refers to a process in which readers rely on textual decoding to comprehend a text, while the top-down counterpart focuses on integrating readers' schemata to form comprehension (Goodman, 1967). The first model has received a lot of criticism because it overemphasizes what is typically known as the lower-level reading process (Gough, 1972). This phonics-based method draws readers' attention at the expense of a

cohesive understanding. It causes slow reading and short-term memory overload, and is also claimed to be the burden of comprehension (Rumelhart, 1977). On the contrary, the top-down process remains more prominent. Developed in accord with the psycholinguistic point of view, the top-down model focuses on activating and making use of schemata to derive comprehension. This results in readers paying less attention to the decoding of letters and words, as they are encouraged to make predictions and search for meaning during the reading process (Goodman, 1967).

Nonetheless, in real reading process, readers seem to incorporate the processes of obtaining knowledge from many different sources to arrive at comprehension. Readers not only utilize the knowledge of phonemes, phonics, spelling, and vocabulary in order to construct meaning, they also seem to depend on their knowledge and experiences of the world to make sense of what they read (Eskey (2005). Comprehension is, in fact, achieved through the interaction of several information-processing strategies. To arrive at a text comprehension, readers must combine the meaning of each sentence with their prior knowledge to construct new knowledge (Grabe & Stoller, 2002).

In response to this view, there emerged a hybrid reading model called the interactive model. The term interactive comes from two conceptions. First, the term “interactive” refers to the interaction that takes place between the reader and the text (Grabe, 1991). Second, the term also means the interaction between the two directions of information processing: the bottom-up and top-down ones (Grabe & Stoller, 2002). Employing the interactive model, readers combine the bottom-up processing, such as the ability to decode and recognize words and grammatical forms, with the top-down one, such as using background knowledge to predict and confirm meaning, in order to arrive at comprehension.

In conclusion, literature suggests that there is no absolute way for readers to read. This makes a reading process interactive in the sense that divergent information processing can be employed simultaneously. The so-called interactive model, which combines the bottom-up portion of reading with deep structure systems from the top-

down system to build meaning, seems to be remarkably widespread. The most evident benefit of this model is that it caters to the differentiation among readers. They are encouraged to use both knowledge of word structure and background knowledge to interpret the texts they read in order to gain comprehension.

### **2.1.2 Reading Comprehension Levels**

Reading comprehension refers to the ability to process information to understand and make sense of what one reads (Goldenberg, 2011). However, the term itself is multi-layered. It can be divided into three main different levels: literal, interpretive or referential, and critical (Miller, 1977; Quandt, 1977).

The most basic level of reading comprehension is called literal comprehension. The literal comprehension refers to the surface understanding of information presented. Readers who have literal comprehension can understand ideas that are explicitly stated in a text through skimming for key themes, scanning for ideas, or locating facts.

The second level is known as interpretive or referential comprehension, which entails the utilization of literal understandings to make implications beyond what is explicitly stated in a text. Readers at this level can read between the lines and understand what is implied for deeper meanings.

The third level of reading comprehension is critical reading, whereby ideas and information are evaluated. It is perceived as a higher-order reading comprehension skill. Readers who read critically are able to utilize what is said in a text and to relate it to some external criteria, which could be from their own experience or knowledge, in order to form their own judgment towards the information given.

### 2.1.3 Advantages of Reading

Of all the four language skills; namely, reading, writing, listening, and speaking, reading appears to be the first emphasized skill for students who learn English as a second (ESL) and foreign (EFL) language (Grabe & Stoller, 2002).

In an academic context, reading is considered a key to learning success. It is a means to gain information and a necessary skill that affects students' learning experiences and performances. Loan (2009) stated that the academic growth and personal success of a student mainly depend on grasping, evaluating, and utilizing the information collected through reading. Reading not only helps students become familiar with the grammatical structure patterns of the language, but it also allows students to acquire content knowledge in a particular specialism (Anderson, 2003).

Furthermore, a strong relationship between reading and learning success has been found. Carnine and Carnine (2004) discovered that English language learners who are also competent in reading are more likely to learn well, while those who struggle are much less likely to be linguistically successful.

It is noticed that the mainstream of educational system in almost every countries around the world seems to heavily emphasize the benefits of reading as the ability to extract information and gain literal comprehension. In many ways, this makes sense. Reading to extract information allows a student to absorb the raw materials of factual information as quickly as possible. It is a level of reading students must engage in frequently.

However, attention has been draw to a higher level of reading comprehension. Researchers and scholars around the world have recently expressed concern over text complexity and fluidity in the 21<sup>st</sup> century (Alqatanani, 2017). They argued that this could cause problems to inexperienced readers, especially those who are students. Surrounded by an endless amount of information intakes, readers in this century need a skill that helps them tackle those texts wisely. The skill must prepare them to be more fact-oriented, analytic, open-minded, and inquisitive. In this regard, critical reading has come into play.

## 2.2 Critical Reading

The philosophical roots of critical reading can be traced back to the liberal-humanist approach to reading during the 1940s to 1970s. The liberal-humanist scholars highlight the distinction between truth, also known as facts about the world, and rhetoric, which comprises inferences and judgments that people can make (Cervetti, Pardales, & Damico, 2001). In their view, no text, regardless of quality and authority, contains its own, pre-determined meaning. It is a reader's job to approach a reading text with skepticism and rational thinking, which would help them understand an author's intention and decipher the validity of information, as presented in Table 2.1.

Table 2.1. *The Liberal-Humanist View of Reading*

Area	Liberal-Humanist Interpretation
Knowledge (Epistemology)	Knowledge is gained through sensory experience in the world and rational thought. Separation between facts, inferences, and readers' judgments is important.
Reality	Reality is knowable and can serve as a referent for interpretation.
Authorship	Detecting the author's intentions is the basis for higher levels of text interpretations.
Goals of Literacy Instruction	To Develop higher-level skills of reading comprehension

In a nutshell, critical reading is a high-level reading with rational thinking in which the communication and active interaction between readers and a text is required. Smith (1963) and Spache (1964) defined critical reading as a set of skills for the highest level of reading comprehension and analysis. These skills include investigating sources, recognizing an author's purpose, distinguishing facts from opinions, making inferences, forming judgments, and detecting propaganda devices, for example. Moreover, Tierney and Pearson (1994), Davies (1995), Bean, et al.

(2002), as well as Schwegler (2004) added that critical reading is an active process that requires the interplay between a text and readers whose background knowledge and experiences play a key role in the analysis of information to create a meaning. Based on these definitions, critical reading does not mean to find fault. Rather, it is to assess the strength of evidence and argument through careful evaluation, sound judgment, and reasoning powers (Huijie, 2010).

To conclude, critical reading is perceived as a thought process of searching for the truth from reading texts where readers do a lot of careful evaluation and analysis to arrive at a new understanding. Consisting of several sub-skills, it helps readers to manipulate data or analyze information before making a final decision regarding whether what they are reading is true, useful, or reliable.

### **2.2.1 Critical Reading and Critical Thinking**

Some confusion among critical reading and critical thinking does often occur. Cervetti, Pardales, and Damico (2001) clarified that critical thinking is very much similar to critical reading in the sense that both of them place an emphasis on clear and logical analysis. However, what marks the difference between them is the application (Huijie, 2010). Critical thinking is perceived only as a reasoning technique for evaluating information and ideas. On the contrary, critical reading is a process of questioning, analyzing, judging, and evaluating information that a person obtains in order to make a rational judgment of a text. Therefore, it can be concluded that critical reading is an application of critical thinking to help readers monitor their understanding.

Moreover, the study of the relationship between critical thinking and critical reading has yielded the understanding that these two concepts complement each other. Chaisuriya (2000) conducted a research study in Thai context to investigate whether critical reading corresponds to critical thinking and vice versa. Thai high school students were randomly selected from schools under the office of the private education commission in Bangkok, Thailand to participate in this study. The

participants' critical thinking ability and critical reading ability were assessed through the Cornell Critical Thinking Test Level X and an English critical reading test respectively. The Cornell Critical Thinking Test Level X had been translated into Thai and adjusted to suit the level and research context, while the critical reading test was constructed by the researcher. The two tests were validated by three experts and piloted before their actual use. Findings revealed a positive relationship between critical thinking and critical reading. Therefore, the study concluded that critical reading corresponds to critical thinking and vice versa. Both concepts focus on enhancing text comprehension.

### 2.2.2 Critical Reading Sub-Skills

Critical reading comprises several sub-skills. Since different researchers have proposed different sub-skills of critical reading, Ueai-Chimplee (2007) has found that seven sub-skills are frequently overlapped (see Table 2.2). They are the abilities of (1) distinguishing between fact and opinion, (2) identifying an author's purpose, (3) recognizing an author's tone, (4) recognizing an author's attitude, (5) recognizing an author's organizational patterns or writing style, (6) drawing inferences or logical conclusions, and (7) identifying a source of information.

Table 2.2. *Critical Reading Sub-Skills*

Critical Reading Sub-Skills	Critical Reading								
	Spache (1966)	Dallman (1978)	Leo (1994)	Flemming (1997)	Ranghabtuk (2001)	Pirozzi (2003)	Mather (2005)	Knott (2005)	Haromi (2014)
1. Distinguishing between fact and opinion	x	x	x	x	x	x	x		
2. Identifying an author's purpose		x	x	x	x	x	x	x	x
3. Recognizing an author's tone	x		x	x	x	x	x		



4. Recognizing an author's attitude	x	x							x
5. Recognizing an author's organizational patterns or writing style	x	x	x		x			x	x
6. Drawing inferences or logical conclusions	x	x	x	x	x	x	x	x	x
7. Identifying a source of information	x	x							x
8. Recognizing word meanings									
9. Determining the author's main idea									x
10. Recognizing literary devices and forms		x							
11. Identifying the topic							x	x	
12. Identifying supporting details							x	x	
13. Filling in informational gaps						x			
14. Identifying persuasive term									x

In conclusion, critical reading mainly consists of seven sub-skills. These sub-skills have made it crystal-clear that critical reading is an active reading where the reader's part is highly stressed. They emphasize that they are all about readers discovering authorial intention as a path to evaluate ideas and to reflect on the presented information for the sake of better understandings.

### **2.2.3 Roles of Critical Reading in the 21<sup>st</sup> Century**

At present, several researchers and educational practitioners urge for greater inclusion of critical reading in the English classroom due to its massive advantages. Researchers state that critical reading is a vital skill that students in this century should possess (Kereluik et al, 2014; Wannakhao, 2006). As highlighted by Alqatanani (2017), critical reading stimulates students to analyze, synthesis, and evaluate what they read so they are able to make judgments on information before making ultimate decisions.

The overflow of information in this age might best describe why students need critical reading ability. It presents a dilemma that students are facing at the very moment. The adoption of the Information Communication Technologies (ICT) such as Internet makes the access of numerous knowledge and information sources easier for students than ever. Dangerously, with a single mouse click, they can simply read anything posted online. Unlike most traditional information media like books, published documents, or magazines, no one has to approve online contents on the Internet before they are made public. Such information can exist in many degrees of quality and reliability and can also be structured in a wide variety of ways. It can be facts, opinions, stories, or expository texts, where the writers' genuine purposes of writing are usually hidden and hard to determine.

This phenomenon poses a great challenge to the realm of English reading education. As Kern and Schultz (2005) once argued, definitions of what it means to be literate have now moved beyond the skills of literally being able to read. This implies that just because people can interpret the basic meaning does not mean that they have

full understanding of what they are dealing with, especially when writers try to manipulate their readers by embedding a slanted point of view in a text. Since a text can be multi-layered in meaning, students need to comprehend more than just the literal level in order to efficiently cope with such reading demands (Attaprechakul, 2013). Obviously, the surface comprehension of the texts cannot adequately equip today's students to effectively deal with an overflow of information at the very moment. What is necessary is that students should also be made aware that information and knowledge are not identical. In this regard, the ability to manipulate data or analyze information before making a final decision regarding whether a text is true, useful, and reliable, or what is known as critical reading, is crucial for them.

Critical reading provides many benefits to students. As emphasized by Scholes (1985) and cited in Huijie (2010), the ultimate goal in reading must be to read critically. The ability to read critically is considered one of the objectives of higher education because it not only leads to better academic progress but also aids the personal development of a student (Wannakhao, 2006).

The most obvious benefit of critical reading is that it can improve students' ability to comprehend a text. In an academic sense, being critical is equal to advancing students' understandings (Razaghi, et al., 2011). Critical reading assures that students thoroughly look at the text at a deeper level and go beyond the information given. This helps them better comprehend the material and gain more in-depth perspectives of text comprehension. Besides, connecting and commenting on ideas are also the important elements of critical reading that aids better comprehension (Kucukoglu, 2011). This will result in their effective learning and, in return, help the students score better in any tests or exams they have to take.

Furthermore, critical reading helps students develop to be critical thinkers. According to Huijie (2010), critical reading involves asking questions in what is being read as a core discipline. As mentioned earlier, students are very often faced with an author's opinion while reading and different authors naturally have different views of information. Critical reading makes sure that students always examine the reading

texts carefully by questioning the origin and purpose of a text, looking for arguments, as well as making their own judgments based on what they have read. This paves the way to better thinking. When students have a chance to see the text from all angles, they will be able to reflect on what the text says, what it describes, and what it really means. Eventually, they develop their critical thinking skills.

In addition, critical reading helps students develop their open-mindedness. Scholes said that critical reading makes students well aware that there are many ways of thinking about and understanding a topic. Simply because critical reading entails the ability to analyze and evaluate in order to seek alternative views of text interpretation as one of the sub-skills, students will be also trained to open to new ideas that may not necessarily agree with their previous thoughts on a topic and to reassess their views when new, contradictory evidence is introduced.

More importantly, critical reading ignites students to think outside the box. Critical reading embraces the use of knowledge from other disciplines and students' own experiences to make connections between them and topics (Razaghi, et al., 2011). When students are in touch with their own personal thoughts and ideas about a topic, they are eager to express their thoughts and their opinions will appear. This, as a result, triggers their passion and creativity.

Due to its several advantages, critical reading is considered an essential skill for today's students. As mentioned earlier, the Internet has evolved to become an ideal place for the rapid spread of rumor and misinformation. This can create problems to inexperienced readers in terms of critical analysis and evaluation, especially those who are students. They are in need of skills that help them function more effectively in the world today. Critical reading can accommodate such a requirement. Students who read with critical minds are fact-oriented, analytic, open-minded, inquisitive, creative, and willing to take a stand (Seyler, 2001). These commodities are very much needed these days to protect students, as information consumers, from the continuing bombardment of all media.

On account of that, it can't be wrong to state that critical reading is the way to prepare students to be ready for what awaits them outside school. In agreement with Alqatanani (2017), it takes a critical reader, not a naive reader, to cope with the expansion of knowledge and information in this era. The components of critical reading clearly exemplify this very characteristic as they are all about readers discovering authorial intention, evaluating ideas, and reflecting on the information in order to come up with valid and sound arguments of their own. Without the ability to read critically, students are prone to become the victims of this scare-mongering news media era. Hence, today's students should be equipped with critical reading ability.

#### **2.2.4 Challenges of Teaching Critical Reading in Thailand**

In Thailand, the importance of critical reading is also spotted. Critical reading, which is seen as imperative competency, has been one of the ultimate goals of the Thai educational system since B.E.2544 or A.D. 2001. This aims to produce future Thai workers who can function effectively and wisely with the speed and the way in which information is transferred (Sompakdee & Pojananon, 2011). Informed by the curriculum, Thai students and graduates are obligated to read critically. That is, they must excel in the ability to reason, criticize, and evaluate reading texts.

Nevertheless, research suggests otherwise. The examination of EFL reading instruction reveals the failure in enhancing the skill of students. Many studies have reported that Thai EFL students cannot read critically. For example, Nitsaisook (2003) conducted a classroom-based study to investigate the reading performance of Thai secondary and tertiary students using both skill-based and text-type-based approaches. The reading test, constructed and validated by the international committee of the project IEA Reading Literacy Study, was used as a data collection instrument. The test comprises 90 multiple-choice items based on three types of reading materials: expository prose, narrative prose, and documents. Each question item contains four alternative answers for the students to choose. The test items are categorized into six reading comprehension sub-skills, of which making inferences is

one skill. The findings reveal that these Thai students' overall reading performance, after comparison to the scale developed by the IEA Reading Literacy Study, is unsatisfactory. This study concludes that both Thai EFL secondary and tertiary students performed poorly on making inferences, which is one of the critical reading skills.

Similarly, Attaprechakul (2013), who explores L2 reading ability of Thai tertiary students, reports likewise. In this study, participants who were undergraduate students were given a hard copy of reading texts of various kinds, including a full-length research article, a short newspaper article and a magazine article, one week in advance. The participants were told to read the text and to be prepared to answer some questions the following week. The questions were intended to elicit information on syntax, vocabulary, writing style and tone, text structure, main idea, the writer's purpose, evaluating opinions, and analytical-critical ability. The participants spent three hours answering the comprehension questions. Their answers were scored against the suggested answer key. In addition, there was also an interview session where each of the 24 volunteer participants, or 27 percent of the participants in the study, spent approximately half an hour, talking to the researcher in Thai. The interview was meant to verify the written answers and to probe the extent of strategy use. Findings reveal that the participants were less able to infer the underlying argument, the tone of the article, and the attitudes of the writers, which are components of critical reading. However, they were well able to interpret the thesis statement, the gist of the section, and the meanings of the tested words and clauses.

The main factor responsible for the failure in English critical reading among Thai students has been identified to be ineffective teaching methods. According to the studies of Chomchaiya (2014), Chomchaiya & Dunworth (2008), Kaewdang (1999), and Wiriyachitra (2001), cited in Sunaratn (2013), p.3; Noisaengsri (1992) and Chittawat (1995), cited in Chayarathee (2003), p.4; Buranapatana (2006), Tamrackitkun (2010), Kongkert (2013), Srisirasasiporn (2014), Sawangsamutchai & Rattanavich (2016), most schools and universities in Thailand still comply with the

traditional way of teaching reading, which is less likely to promote critical thinking and analyzing skills. Many Thai teachers still subscribe to the decoding and translation approach where students are seen as passive readers waiting for knowledge. In a classroom, Thai teachers just assign the reading materials, have their students read and translate sentence by sentence, and then assess the students' reading comprehension performance through a paper-and-pencil test. This kind of pedagogical practice reflects teachers' underlying belief in the decoding and translation approaches, which Sawangsamutchai and Rattanavich (2016) criticized as unsuccessful in promoting critical reading to students.

In addition, the other cause of the lack of critical reading among Thai students lies in reading tasks. Research has found that the tasks posed to students do not provoke higher-order thinking in reading but overly emphasize the ability to understand surface facts, to summarize ideas, and to retell information and details (Tamrackitkun, 2010). In agreement with Chayarathee (2003), such reading tasks offer no active participation in learning and make it impossible for students to be trained in critical thinking and self-expression. Undoubtedly, students cannot read critically.

To sum up, the traditional teaching methods in Thailand and reading tasks are identified as the major causes responsible for the failure of critical reading among Thai students. That is to say, a majority of EFL classrooms have been reported to largely focus on the basic level of reading comprehension; underemphasizing critical reading and emphasizing reading tasks posed to students which have been found to not provoke higher-order thinking in reading. They are designed to overly concentrate on the ability to understand surface facts, to summarize ideas, to select information and details, and to rehearse or retell. This pedagogical practice has received a lot of criticism because it supports passive reading behaviour and does not at all encourage critical reading. Since critical reading plays an important role in students' lives, this problem needs an urgent solution. As teachers are considered one of the key mechanisms for teaching and learning efficiency, they are obligated to find an

effective solution to improve the critical reading ability among students.

### **2.2.5 Attempts to Solve the Critical Reading Problem in Thailand**

Finding an effective way to teach critical reading has long been an aspiration of researchers. Since it plays an important role in the success of a student, educators are obligated to find suitable methods to enhance the skill. Several empirical research works attempting to establish the reading pedagogy that instills the ability to read critically to Thai students have been carried out. The instructional interventions used in each study were different but the research context, research design, and data collection instruments were somewhat similar.

For example, Lekvilai (1996) developed a critical reading instructional model based on a cooperative learning principle, where students had to work together and interact in small groups. The students, who were in a lower secondary level, were taught to understand an author's purposes and ideas, identify facts and opinions, analyze the stories, criticize the propaganda, and evaluate the assigned passages through learning strategies such as cognition, memorization, metacognition, compensation, affection, and socialization. Their critical reading ability was assessed both before and after the study. Findings revealed significant higher scores after the students engaged in the cooperative learning. Also, they tended to express good opinions towards the learning activities. Based on this account, Lekvilai concluded that the cooperative learning could be used as an effective teaching method to enhance students' critical reading ability.

Under the same research context and data elicitation techniques, Boonplong (1998) employed computer-assisted lessons to teach critical reading. The participants, who were studying in a lower secondary school, were randomly assigned to three groups based on their grade point average. The three groups, consisting of high, medium and low learning achievement groups, studied critical reading from computer-assisted instruction lessons. The statistical analysis of critical reading pre-test and post-test scores suggested that all the three groups of participants received



better scores in the post-test. Also, the participants had positive attitudes and expressed satisfaction towards the computer-assisted instruction lessons.

Aiming to strengthen the internal validity, Wannakhao (2006) carried out a pre-test and post-test control group experimental study to investigate the effectiveness of an own-designed critical reading instructional model. The study was divided into 3 phases. In the first phase, questionnaires and direct interviews were administered to 200 undergraduate students and 5 English teachers. Results gained from phase I were used to frame the conceptual framework and the design of the instructional model in the next phase. The instructional model consisted of (1) principle and goal, (2) scope of the content and metacognitive strategies that are essential for enhancing the students' critical reading and critical thinking abilities, (3) learning activities, and (4) evaluation. The critical reading activities were based on 3 stages of metacognitive strategies: planning, monitoring and evaluating. The developed instructional model was verified by three experts, based on Kemmis and McTaggart's principles, before its actual implementation. The data were collected through critical English reading tests, critical thinking skills tests, classroom observations, and interviews and were analyzed both quantitatively and qualitatively. The results showed that the mean difference between pre-test and post-test scores of the experimental group on critical reading abilities and critical thinking skills was higher than that of the control group at the statistical level of .05. Further, the mean difference of the post-test score of the experimental group was higher than that of the pre-test score at the statistical level of .05.

In 2007, Ueai-chimplee adopted the reader response approach to teach critical reading and critical thinking to the students. Ten-week lesson plans based on the reader response framework were designed and used as an intervention in this study. The framework was the combination between Rosenblatt's concept of the reader response theory (1938) and the reader response instructions suggested by Ali (1993), Spiegel (1997), Probst (1988), Varvel (1988), Luce (2000), and Kelly (2000). The lessons were broken down into three steps: pre-reading, whilst-reading, and post-

reading, each of which was incorporated with five teaching procedures: schema activation, initial response, group response, whole class discussion, and final response. The participants' critical reading and critical thinking abilities were assessed prior to and after the study. In addition, the participants were required to write three responses to a reading passage. These responses were supplemental data to the test scores. Findings revealed that the mean scores of the critical thinking and critical reading post-tests were significantly higher than those of the pre-test. The analysis of students' responses also showed the development of the participants' critical thinking and critical reading ability. Therefore, this study concluded that the reader response approach could be used effectively to improve critical reading and critical thinking ability of the students.

Up until the 21<sup>st</sup> century, attempts to find an effective method for teaching critical reading to Thai students have still been continuing. Sompakdee & Pojananon's (2011) action research reported the effectiveness of the ERICA model in developing English critical reading ability of undergraduate students. Lesson plans were designed based on the ERICA model, in which the participants were directed through the four reading steps: preparing for the topic, thinking through reading, extracting and organizing information, and transferring information through writing. Data collection tools consisted of both quantitative and qualitative types, including a class observation form, a student observation form, three tests of each operational reflecting cycle, and a critical reading test. The study concluded that the ERICA model was an effective teaching technique in developing students' critical reading ability.

Recently, Srisirasipon (2014), Thonglon and Sroinam (2014), and Tangpinijkarn (2015) conducted an empirical research study that investigated the effectiveness of the intervention on Thai students' critical reading ability under the same research paradigm. Apart from the research design, their studies were also similar in terms of the research context. That is, they conducted their studies with Thai upper secondary school students.

In 2014, Srisirasasipon explored the effectiveness of a research-based learning approach integrated with self-monitoring (RBLSM) in developing critical reading skills of Thai EFL students. In this study, the lesson plans were built based on the integration of a research-based learning approach and a self-monitoring technique. The participants, who were studying in the upper secondary level, were required to conduct three research projects as a part of their reading subject. Using the reading text given, the participants had to formulate their own research questions, plan their reading tasks, analyze information from various other sources, and share their findings with classmates. Furthermore, the participants had to monitor their learning process by filling in some field notes. After 13 weeks, the participants' critical reading test scores significantly improved and they tended to have good attitudes towards the RBLSM course.

Thonglon & Sroinam (2014) compared English critical reading ability of Thai high school students before and after learning through the KWLH Plus technique and assessed the students' attitude towards the teaching technique. After being exposed to critical reading lessons based on the KWLH Plus technique, the participants' critical reading test scores were significantly higher and their attitudes were positive.

Likewise, Tangpinijkarn (2015) also conducted a quasi-experimental single group pre-test and post-test design study. The objective was to examine the effectiveness of using literature in enhancing critical reading ability of Thai upper secondary school students. In her study, the participants, who were grade twelve students, had to learn critical reading through literature. Their critical reading ability was assessed before and after being exposed to the lessons. In addition, the participants' attitudes were also evaluated. Findings suggest that the participants' test scores were significantly better and they had positive attitudes towards the lessons. The participants commented that literature helped them bring their personal experiences to the reading and also encouraged group activities.

So far, the adoption of a variety of teaching methods such as the KWLH technique, the ERICA model, a research-based learning approach, and a reader

response-based approach has empirically appeared to be effective in developing critical reading ability in Thai students. However, gaps of knowledge still exist. These gaps have left some room for further studies on the topic of critical reading in Thailand.

Finding a teaching approach that is compatible with learners' interests is deemed necessary. Kress (2003) suggested that literacy curriculum need to be reconceptualized in order to best engage today's students and to meet the recent requirements of society. This implies that literacy instruction should be based on multimodality, which is now deeply ingrained in today's communication and students' daily routine. Paying attention to merely linguistic representations somewhat reflects an old paradigm because it cannot cater to the whole spectrum of learning activities (Jantrasakul, 2012). In accordance with Siegal (2012), teachers must shift their pedagogical practices to emphasize all kinds of channels and modes of representation and communication so that students can participate and reflect their point of views in several different ways. Since students are different, a kind of learning that meaningfully responds to the various students' needs, learning styles, interests, and readiness should be created. This is exactly the concern of this present study. That is to say, it is proposing an alternative pedagogical means to enhance critical reading that corresponds to the world students are living in at the moment.

After an extensive review of literature, multimodality has a strong potential to promote students' critical reading. Several academic papers have discussed advantages that multimodality has to offer to the field of education and English language teaching.

### **2.3 Multimodality**

The overarching theoretical perspective that guides the present study is multimodality, as suggested by The New London Group (1996).

The concept of multimodality has evolved along with the changes in communication landscape of the 21<sup>st</sup> century. The advancement of information and

technological communication (ICT) allows people to make use of all kinds of modes and mediums in imparting and exchanging information. This affects every aspect of people's lives, including school. That is to say, people are now surrounded by the use of multimodal communication that features photos, graphics, sounds, and icons. As a result, the way in which they acquire, perceive, and transform messages has changed (Short, Kauffman, & Kahn, 2000).

Noticing as such, a group of educators called the New London Group explored how multiple modalities influence the literacy learning of students. They brought ideas from a variety of domains including language, education, diversity, semiotics, and critical literacy, in order to discuss the state and future of literacy pedagogy. They argued that literacy can no longer be perceived as a solely linguistic accomplishment. Due to the fact that the multiplicity of communication channels is neither limited to one mode nor realized through one medium, the traditional language-based approach can no longer portray the features of today's literacy. In this regard, the New London Group suggested that literacy must encompass a vast array of other semiotic modes, or multimodal.

In its most basic sense, multimodality is a theory of communication and social semiotics. It describes the process of using two or more communication modes within the same text to communicate and make meaning (The New London Group, 1996). The premise of the theory is that all communication is multimodal. As Kress & van Leeuwen (2001) once said, meaning is made and communicated through multiple representational modes, of which language is one. And these modes are all relevant in the construction of meaning in different ways (Kress & van Leeuwen, 2001; Kress, 2003; Jewitt, 2008).

### **2.3.1 Multiple Intelligences**

Multimodality is conceptually grounded from Gardner's work on Multiple Intelligences.

Multiple Intelligences highlights individual differences and emphasizes eight basic intelligences; namely, verbal-linguistic, logical-mathematical, spatial, kinesthetic, musical, interpersonal, intrapersonal, and naturalistic. Traditionally, intelligence has been established on the basis of linguistic and logical-mathematical abilities. However, Gardner (1983), cited in Krishnasamy (2010), suggested that there are multiple intelligences of students and therefore multiple ways for them to create knowledge. Therefore, he postulated that each person has a capacity to develop every kind of intelligence if adequate enrichment and instruction are provided.

Even though Multiple Intelligences was not originally articulated for a classroom application, it has been widely adapted in an educational setting to improve students' learning ability and to meet the needs of a variety of the intelligences. Furthermore, Multiple Intelligences has brought great benefits in the ELT field. For example, it stimulates teachers to embrace human differences when planning their lessons. Teachers do not need to create a new curriculum or teaching methodology but revise their existing lesson plans and supplement them with creative and innovative ideas (Campbell, 1997, cited in Derakhshan & Faribi, 2015). Apart from teachers, students are also given more choices to learn and demonstrate their learning through the Multiple Intelligences-based lessons, which are believed to maximize their learning for higher academic achievement and enhance their motivation (Hall Haley, 2004, cited in Derakhshan & Faribi, 2015).

Derived from Gardner's Multiple Intelligences, multimodality has the same standpoint. That is, different people learn in different ways and are stimulated by different learning activities. Advocates of multimodality believe that students learn better when they do it in different ways. Through multimodality, students have endless opportunities to use multiple modes such as linguistic, visual, and audio in order to engage in meaningful literacy activities. This caters to their understanding of the subject matter being learnt because students have a chance to work on different modes, each of which requires different types of comprehension tasks (Kress et al, 2001). More importantly, multimodality allows students to experience learning in

ways that they are most comfortable, while challenges them to learn in other ways too.

### 2.3.2 Modes and Mediums

As the name suggests, multimodality means several modes, as described in Figure 2.1. A mode is defined as a semiotic or meaning communication channel. According to Kress (2000), Jewitt and Kress (2003), Jewitt (2008), and Ganapathy (2014), there are five modes that contribute to a multimodal activity. They are linguistic, visual, aural, gestural, and spatial, with all working harmoniously to create meaning.

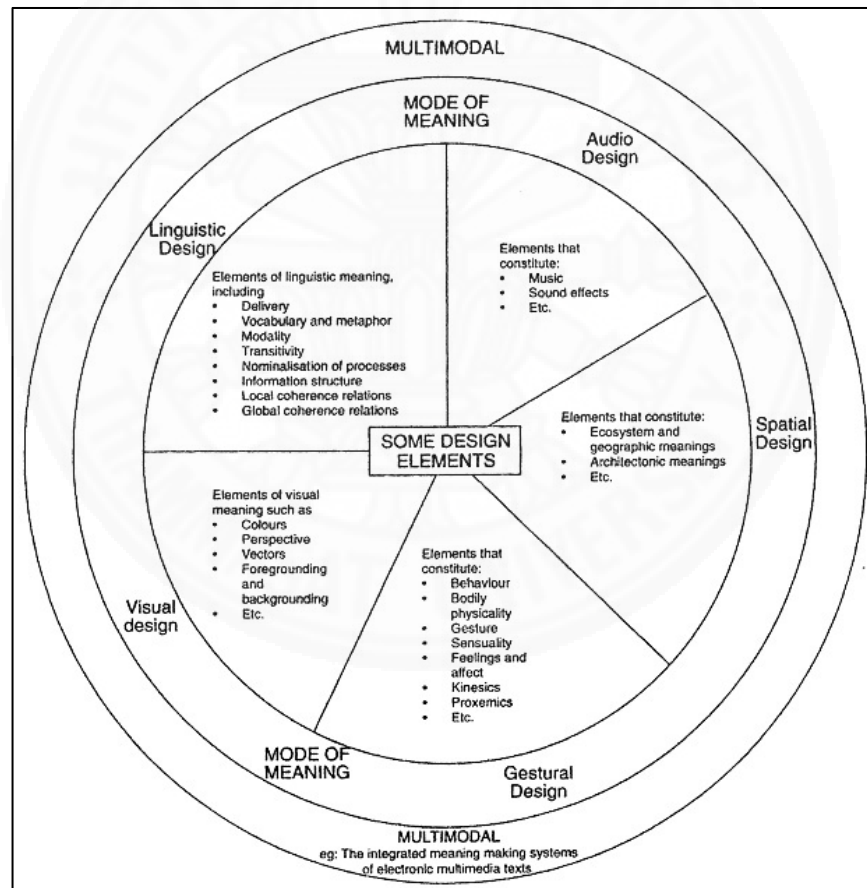


Figure 2.1. Five Semiotic Modes

The first mode is linguistic, which comprises vocabulary, generic structure and the grammar of oral and written language. Linguistic mode can be in the forms of handwriting, printed page, or speech.

The next mode is visual, including colours, vectors, scene, perspective, and viewpoint in both still and moving images.

Audio is another one. The examples of audio design are the rhythm of music and sound effects such as those in live or recorded speech.

The fourth is gestural, which is the physical act of signing. It contains a wide range of movement such as that of the hands and arms, speed and stillness in facial expression such as eye movements and gaze, as well as body language.

The last mode is spatial such as direction, position of layout, and organization of objects. The examples of spatial design are architecture, building, streetscape, cityscape, and landscape.

Based on the New London Group (1996), these semiotic modes are usually incorporated in an actual communication to make up multimodal, which is the most important feature in communication. Each mode has its own distinctive feature and it creates specific meaning or different communicative activities for both message senders and recipients.

The interplay between modes provides endless possibilities for conveying information. Even though social linguists consider speech and writing as the ultimate in carrying the essence of meanings, social semioticians do not perceive it that way. In a multimodal sense, modes such as audio, visual, or spatial do not subsidiarily expand, exemplify, or modify the linguistic meaning but work simultaneously in representing the information. As asserted by Hull and Nelson (2005), a multimodal design offers a unique message, which would not have been succinctly achieved through the individual use of each mode.

Apart from mode, medium is the other term associated with multimodality. Mode and medium are not synonymous. Medium is described as the substance in



which meaning is realized and becomes available to others (Jewitt, 2008). The examples of mediums include film, newspaper, poster, radio, television, theater, etc. Simply put, mediums are regarded as the means of delivery.

Based on the definition of mode and medium, a multimodal text is then referred to as a text whose meaning is communicated through a synchronization of modes and can be delivered through choices of mediums. Nevertheless, Kress (2006) pointed out that multimodal texts do not have to always rely on technology. They can be a magazine, in which the textual and visual designs are arranged on individual pages; or they can be a webpage, in which elements such as sound effects, oral language, written language, music, and still or moving images are combined. Additionally, the multimodal texts can also be a live performance, in which gesture, music, and space are the main elements. Even in spoken language, words are also accompanied by multimodal features such as facial gestures, body movements, and so forth.

### **2.3.3 Merits of Multimodality in English Language Teaching**

A change in reading behavior is one of the tangible proofs that multimodality plays a vital role in today's literacy. Several studies (Chauhan & Lal, 2012; Jewitt, 2009; Serafini, 2015) have reported a declining number of traditional print-based books in parallel to a rocketing rate of growth in online reading platforms where most texts involve a complex interplay of written texts, images, and other graphic or sound elements. Online reading allows the opportunity for readers to interact with other audiences. For example, people now can make a response video to what they read and upload it on YouTube (Vaarala & Jalkanen, 2010). The video might either receive a burst of attention in the form of views and comments or go on to be widely spread via other social media channels with new versions of responses. This multimodal feature of an online text has moved people to go beyond being a passive reader but to take the role of an information provider to share their knowledge, present their viewpoints, and

narrate their sides of the story (Kress & Van Leeuwen, 2001; Jewitt, 2009, cited in Serafini, 2015).

In the field of English language teaching, multimodality has received growing attention. Living in the multimodal world, students these days are found to be familiar with multimodal communicative activities as much as previous generations were with text-based activities. They read and write multimodal texts that include the use of the technological and online resources of texting, blogging, or twittering.

Due to their immersion in multimodality, today's students are fundamentally different from those in the past and they may also have different learning styles and preferences (Farjardo, 2015; Kereluik et al, 2014). Since communication now encompasses multimodal, the need to shift literacy pedagogy to fit the students' current out-of-school practices is greater than ever.

In addition, Prensky (2005) recommended that such authentic conditions should be provided in a classroom so that students are able to express their individual experiences. In this regard, educators such as Svensson (2014), Smith et al. (2010), Lankshear and Knobel (2006), cited in Vaarala and Jalkanen (2010), as well as Prensky (2005), Chauhan and Lal (2012), and Farjardo (2015) have supported the integration of multimodality into English language pedagogy.

The integration of multimodality into the English language pedagogy highlights the use of multiple modes in learning activities and environments. The key motivation for incorporating multimodality is to improve the engagement and learning of students.

Daniels (2001) pointed out that, for students to be engaged in a subject, they need to situate themselves and connect their everyday lives to the learning process. A multimodal-oriented learning environment, thus, provides a relevant and stimulating learning experience as well as a meaningful participation to those students who read a large range of media-rich texts on a daily basis (Lankshear and Knobel, 2006, cited in Vaarala & Jalkanen, 2010; Smith et al., 2010; Svensson, 2014).

Apart from offering the authentic and stimulating learning environment, multimodality also has several advantages to the teaching and learning of English.

First of all, the use of multimodality in a classroom can improve students' learning performance (Chen & Fu, 2003; Fadel, 2008; Mayer, 2003; Picciano, 2009). In a motivating classroom environment established by multimodality, students are found to be dynamic and enthusiastic (Sankey, Birch, & Garder, 2010).

Since multimodality caters to different learning styles (Chen & Fu, 2003), students also feel more comfortable and have the perception that learning is fun (Siegal, 2012). When they develop their positive attitudes towards learning, students are likely to open their mind to learn and understand the subject matter (Lirola, 2014). Consequently, they perform better in classes.

Also, the integration of multimodality is likely to maintain students' attention spans. This not only improves learning achievement but also creates meaningful and long-lasting knowledge, which aids retention of learning.

Another benefit is that multimodality empowers students' language limitations. It cannot be denied that some ESL and EFL students are not very competent in their second or foreign tongues and they may feel intimidated by the purely linguistic mode conventionally used in a classroom (Siegal, 2012). This can hinder them from learning and understanding subject matters.

The solution to this problem is to offer those students a more engaging and creative way to construct their understandings. Apart from the linguistic mode, students should have an opportunity to explore their learning through other different modes. Thus, the adoption of multimodality can free those students from the confinement of the conventional classroom and offers them several modes to imagine and think with while strengthening their linguistic repertoires (Kress et al., 2001).

Furthermore, multimodality helps students read and comprehend a text better. Bezemer and Jewitt (2010) suggested that multimodality could be used in the teaching of all language skills. For reading, the incorporation of other semiotic modes engages

students into thinking more about the topic being read. These modes serve a different role and bring pieces of information which students can assemble to arrive at text comprehension.

In addition, the use of multimodality can develop students' reflective and critical thinking. It repositions a classroom task to be more of an interactive tool for teaching and learning (Lee, 2013). When doing a task, multimodality caters to students' individual preferences by offering a variety of choices for communication and representation. Using various modes in performing a task is a catalyst that stimulates students to think more about what they are learning (Lee, 2014). Therefore, their generative and critical thinking skills are sharpened.

To summarize, integrating multimodality into the English language pedagogy means using multiple modes in learning activities and environments. It offers several advantages to teaching and learning such as improving students' learning performances and attention spans, as well as developing critical thinking skills, for example.

### **2.3.4 Research about Multimodality in English Language teaching**

A number of research studies, with different designs and paradigms, have been conducted in order to understand how multimodality contributes to English language learning achievement. So far, several studies empirically prove that the integration of multimodality brings tremendous advantages to English language classrooms.

Boshrabadi and Biria (2014) investigated the effects of multimodal texts on reading comprehension and perceptions of Iranian high school students through a mixed method study. Participants included 90 students who were equally divided into a control and an experimental group. The two groups received the same reading lessons. However, the activities for the experimental class were conducted somewhat differently. That is, multimodal features such as images, videos, and audio tracks were added to reading passages and the participants had to discuss the relationship between each multimodal feature and the text. It was found out that multimodal texts, when

compared with traditionally print-based texts, were more effective in improving students' comprehension and better created enjoyment in the classroom. Data showed significantly higher post-test scores of the experimental group. Besides, findings from questionnaires reported positive perceptions towards multimodality. The participants revealed that they felt more enjoyment carrying out comprehension activities and felt more confident in reading. The researchers concluded that the integration of multimodality to reading lessons not only helped the students perform better but it also promoted learning motivation.

In like manner, Baharani and Ghafournia (2015) also studied the impact of multimodality on reading comprehension in the Iranian context. Participants were 80 female students who were randomly distributed into four groups. A pre-test was administered to assess the participants' reading comprehension performance before the experiment. During the classes, the four groups studied and did comprehension activities based on the same reading passages. Nevertheless, the passages themselves came with different features, namely, linear texts, multimodal printed texts, multimodal non-printed texts, and both multimodal printed and non-printed texts. After the experiment, a post-test was given to them. The findings were similar to that of Boshrabadi and Biria (2014), showing significant impacts that multimodality had on students' reading comprehension. It was also interesting to find that multimodal texts, regardless of the platform, were equally effective in enhancing comprehension.

Another similar study that yielded the same positive effects of multimodality on reading comprehension is that of Kuo, Yang, and Kuo (2010). Just like the other two studies, the findings agree that students displayed a high interest in learning and gained great benefits on reading comprehension via the multimodal-based lessons.

Furthermore, Lee (2013) qualitatively investigated students' creation of multimodal responses to classic English literature and found that it helped students who might not be so confident and proficient in English to share their appreciation of literature without feeling linguistically inferior. After reading the literature, students spent the last two classes presenting their multimodal responses and receiving peer

evaluation. For example, they might design an animated picture collage to express their understandings and their ideas regarding interpretations of the story. Data were collected through videotaped group presentations, peer evaluation results, and the students' reflections from open-ended surveys. The results suggested that Taiwanese university students displayed positive feelings towards the classroom study as well as had satisfaction with their learning and comprehension performances. In addition, the students' perceptions of themselves as autonomous and proficient learners were raised.

Based on her previous work, Lee subsequently conducted another qualitative study to further explain in what way multimodality increases students' positive attitudes. In 2014, a case study exploring the effects of using an arts-integrated multimodal approach to promote English language learning on two male Chinese students was carried out. The students had to engage in a series of multimodal responses to English literatures, including an online literature circle, digital storytelling, and visual narratives, over two consecutive years. Data came from various sources, including the students' writing assignments (such as postings on discussion boards, five narrative writings, and pre- and post-project essay writings), their digital stories, their retrospective survey answers at the end of every semester, and informal communications with the two students recorded in the teacher's journal. The qualitative data analysis showed that the multimodal-integrated learning increased the students' motivation and confidence. After they were encouraged to integrate arts into their responses, they showed improvement in course participation and increased motivation in class activities. Most important of all, their multimodal creations suggested that they were capable of using a variety of techniques to make meaning and position themselves as generative and creative authors. After the study, the two case-study students' English skills improved and their perceptions of English learning changed positively.

What's more, research also finds out that multimodality aids reflective, generative, and critical thinking. Elliott-Johns (2011) integrated multimodality as an

alternative approach for pre-service teachers to present their responses and interpretations of a literature. In her study, the participants were asked to first choose one literature suitable for use in their classrooms. Then, they had to create a multimodal response to their literature selection. The participants were given a range of software applications including Quick Time, Key Notes, and i-Movie that they found relevant to effectively communicating their responses to work on. The heart of the multimodal responses was to reflect the pre-service teachers' personal response as an adult learner. In addition, they were also told that their final product should also be something they could use as an example in future classes when assigning similar work to their prospective school-age students. Feedback from the participants were gathered and results suggested that the creation of multimodal responses generated considerable interests and enthusiasm in classes. The participants displayed their positive perceptions towards multimodality. To them, the multimodal response was truly the most unique assignment since it required various different ways of responding to literature, not just simply writing a response. More importantly, this appeared to be a further catalyst for higher-order skills such as critical thinking.

In a similar vein, the study of Lirola (2016) recently yielded the same results. She investigated the use of multimodal materials in the English language and literature classroom on students' development of five language skills; namely, listening, speaking, reading, writing, and interacting. The materials included videos, Facebook, and multimodal texts with images. The students had to write an essay in response to a multimodal text with social content and presented their analysis to classmates orally. Findings showed that multimodal classes facilitated the students' learning process and favoured their creativity, motivation, and autonomy. Not only had the students acquired learning content but they also developed critical thinking because they had to take an active role in making decisions on the topic of the oral presentation and its organization using multimodal resources.

Additionally, Jacobs (2012) examined how the use of multimodality in a classroom could contribute to the academic development of university freshmen. The

students were assigned a group project in which they had to create multimodal reports in response to the learning content. They were given freedom to use any types of technologies they wished to create and present their works. In-class workshops were also allocated for students to brainstorm, plan, and discuss their ideas while the researcher as the teacher circulated around the classroom observing and answering the students' questions. Data were both qualitatively and quantitatively collected through a variety of tools such as questionnaires, microthemes, blogs, memos, essays, multimodal presentations and scripts, article summaries, and end-of-semester reflection. Analysis showed that an expository video created by the students contained proper elements of academic literacies and displayed fine qualities of multimodal features. The assigned multimodal projects enriched and better demonstrated the content students wished to share; as a result, the students were observed to be growing academically and professionally.

In terms of learning performance plus retention, Sankey, Birch and Gardiner (2010) presented the findings of an experiment to measure the impact of multiple representations of contents on learning outcomes and retention, including learning performance and engagement. The main purpose of this study was to establish a causal-effect relationship between the way in which content was presented to students and their learning outcomes. Differences across predominant learning styles/modal preferences (visual, aural, linguistic, gestural, or multimodal) were also investigated. Participants were exposed to six lessons using six different learning materials, in which each of the subsequent materials progressively added multiple representations. To measure prior knowledge and learning, the participants were asked to complete a pre-test comprising multiple choice questions for each lesson and then to complete a post-test (identical to the pre-test) after being exposed to each learning scenario. Moreover, a post-experimental survey was developed to gather the participants' perceptions of the learning elements they were exposed to during the experiment. The survey asked which of the two learning scenarios they had found to be: (a) easiest; and (b) most enjoyable to learn. Findings revealed that multimodality aids retention of learning. Even though the multiple representations of content did not lead to



significant improvements in learning performance, they were found to assist participants' comprehension and retention of the learning materials. To the participants, the combination of multimodal resources was not only seen to provide information, but also led to a greater perceived understanding and retention of the materials being presented and made learning more enjoyable. The experimental data did not indicate that multiple representations led to cognitive overload.

The study of Sankey, Birch and Gardiner (2010) was found to be in accord with previous studies of Calandra, Barron and Thompson-Sellers (2008), as well as Clark and Mayer (2003), in which using a combination of verbal and non-verbal approaches could increase working memory, known as Dual Coding Theory, suggested by Pavio (1991).

In addition, Fariás et. al, (2014) evaluated the effects of presentation modality in the retention and transfer of concrete vocabulary in ESL university students. Participants included three groups of university students who were taught vocabulary through three different presentation formats: a) TN: on-screen text and narration, b) TNI: on-screen text, narration and still images; and c) TNV: on-screen text, narration and videos. All three groups were given a retention test (RT), a transfer test (TT), and a questionnaire to evaluate the types of presentation (TPQ). Results statistically indicated significant differences among groups, in which the TNI group showed the highest scores on the vocabulary retention test. Moreover, the TNI group also gained the highest scores in the transfer test. Besides, results from the questionnaire suggested that still images helped more than text and video in vocabulary learning, that actions were better represented through videos than through still images, and that more attention was paid to narration in group TN than in groups TNV and TNI. This study confirmed the basic premise of multimodal learning that allowed students to actively integrate textual and pictorial information into a coherent mental model.

In conclusion, the past studies have confirmed several advantages of integrating multimodality into an English language classroom. They yielded consistent findings in terms of the effectiveness of multimodality. That is, the

participants were found to better comprehend the subject contents when equipped with a variety of different modes. These findings agree with neuroscience research that multimodal learning can support a discernable increase in learning (Fadel, 2008, p. 12).

Compared to the conventional classrooms, multimodality makes students feel comfortable and perceive that it is easier and more fun to learn. It engages, motivates, and maintains their attention span. Such a motivating environment caused by multimodality brings a dynamic to learning and this positively affects students' learning progress (Sankey, Birch, & Garder, 2010). When students develop their positive attitudes towards learning, they are likely to open their minds to learn. Especially for those who are linguistically at-risk, multimodality can empower and lead them to a level that a paper-and-pencil task could never accomplish. Hence, it can be concluded that multimodality provides rich English language learning experiences that cater to students' different language proficiency and learning paths.

### **2.3.5 Putting Multimodality into Practice**

Multimodality can offer a powerful pedagogy in English language teaching since it reflects students' real life knowledge and experiences. In order to infuse multimodality, The New London Group (1996) proposed the pedagogy of multiliteracies. As Rowsell and Walsh (2011) once said, multimodality informs principles of how people make meaning but multiliteracies gives a possible pedagogy or a tool for doing so.

#### **2.3.5.1 The Pedagogy of Multiliteracies**

The pedagogy of multiliteracies provides an instructional framework for a multimodal instructional design that relies on a variety of pedagogical techniques, deliveries, and media (Kalantzis & Cope, 2005). In other words, it embraces the combination of multimodal modes within a wide range of literacy

practices, where students move between linguistic, visual, auditory, gestural, and spatial modes.

Grounded under multimodality, the term “multiliteracies” refers to multiple literacies that are stretched beyond the constraints of written and spoken language. In other words, literacy is no longer viewed as merely a set of linguistic skills one must master. The New London Group (1996) stated that the growth of technology has demanded a wider view of literacy in comparison to the traditional text-based literacy. The spoken and written words are no longer the only way to communicate a message to the world or among individuals (Jewitt, 2008). Features like audios, videos, pictures, and animations can now be incorporated with languages and this opens up new possibilities for communication. The definition of literacy thus has become pluralized.

The pedagogy of multiliteracies captures the ability of using technology and language adequately and meaningfully. It captures what The New London Group (1996) has identified as the twin goals of literacy education. They are to provide students access to multimodality and to equip them with the necessary tools for active and critical engagement with these new forms of meaning making resources. The key principle of the pedagogy of multiliteracies is to ensure that active participation and intellectual quality of students are scaffolded through a range of tasks such as thinking, discussing, problem-solving, synthesizing, theorizing, or drawing conclusions (Haren, 2010).

The characteristics of a literate and multiliterate person inform the principles of the pedagogy of multiliteracies. Ryan & Anstey (2003) defined a multiliterate person as one who can make meaning and communicate in a variety of modes and media, as well as critically analyze texts in all representational forms. Table 2.3 is a summary of the interrelation of literacy, multiliteracies and pedagogy by Cole and Pullen (2010).

**Table 2.3.** *The Interrelation of Literacy, Multiliteracies and Pedagogy*

<b>A literate person should be able to:</b>	<b>A multiliterate person should be able to:</b>	<b>A multiliteracies pedagogy should include:</b>
- be responsive to changing literacies	- understand the influence of diversity on literacy and literate practices	- the consumption, production and transformation of knowledge about literacy and literate practices
- reformulate existing literacy knowledge and practices	- use critical literacy	- the understandings about, and the use of, critical literacy
- access and learn new literacy knowledge and practices	- use literacy and literate practices in socially responsible ways	- the understandings about how literate practices relate to all aspects of society
- use a repertoire of literate practices and strategies appropriately	- use literacy and literate practices in diverse contexts	- the investigation of how literacy and literate practices operate in a variety of contexts
- use traditional paper and live technologies	- understand and use a range of texts and technologies	- Knowledge about and use of all semiotic systems, including paper, digital-electronic and live technologies

Based on Table 2.3, the desirable characteristics of multiliteracies pedagogy are captured. The multiliteracies pedagogy views learning as an engagement in the consumption, production and transformation of knowledge. Literacy is viewed as a

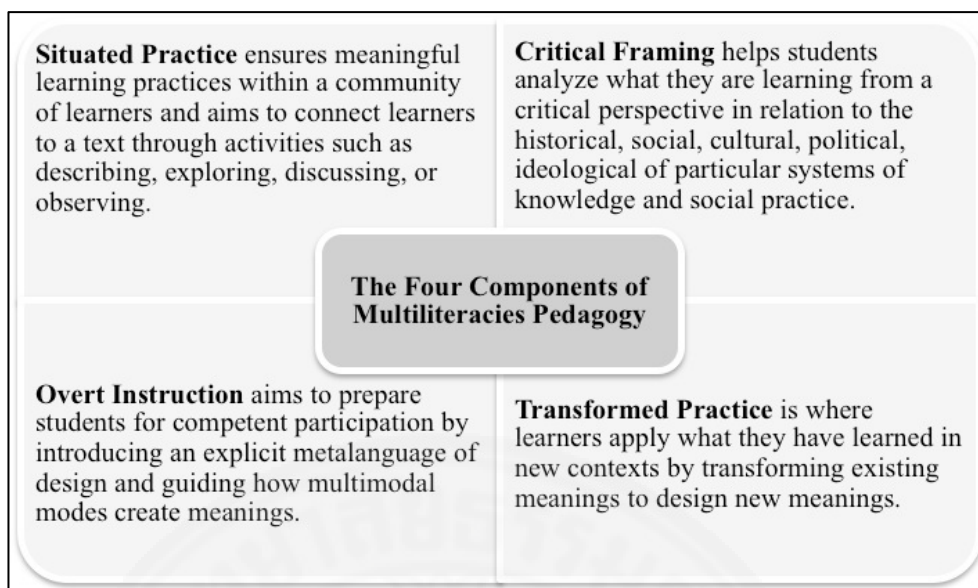
strategic problem-solving activity. Moreover, Cole and Pullen (2010) suggested that the multiliteracies pedagogy should include the use of authentic texts and tasks of the real and simulated contexts. And it should emphasize textual interpretation and transformation, the interdependence of language modalities, as well as interactions among language forms, social context, and communication. As such, engaging in literacy practices is not simply an act of replicating learned forms and conventions; instead, it is a dynamic process of reusing and reshaping forms and conventions to understand and create meaning through texts (Cope & Kalantzis, 2009).

Up to now, there are three different pedagogical frameworks of multiliteracies that are designed to augment multimodality within the classroom. The next part describes the three frameworks; namely, Four Components of Multiliteracies Pedagogy (The New London Group, 1996), Four Resources Model (Luke & Freebody, 1999), and Learning by Design (Cope & Kalantzis, 2005), in details.

#### **2.3.5.2 The Four Components of Multiliteracies Pedagogy**

The pedagogy of multiliteracies has been operationalized into four interwoven stages that teachers can use to guide their practices to facilitate multimodal teaching and learning. Ryan and Anstey (2003) explained that the framework incorporates and extends existing literacy pedagogy rather than replacing them. It offers new practices that pave the way for students to become more confident and knowledgeable in their learning context through participatory and collaborative practices. Alternatively, this pedagogical model provides students comfortable spaces where they can learn and engage in several multimodal activities.

The New London Group (1996) suggested the four curricular components that play significant parts in addressing the learner's literacy needs. The four components consist situated practice, overt instruction, critical framing, and transformed practice.



**Figure 2.2.** The Four Components of Multiliteracies Pedagogy

The first component is called situated practice. The New London Group (1996) clarifies it as the stage of providing students meaningful practices by building on their lived experiences based on their world. Walsh (2010) asserts that literacy means interactions between situations and students' backgrounds; so they should be immersed in a meaning making practice based on their backgrounds. This means teachers fostering a safe learning environment through authentic classroom activities that are grounded on students' diverse interests and experiences.

Situated practice in teaching reading focuses on the immersion activity, which is communicates the reading passage based on the lives, experiences, and spontaneous expression of thought, opinion and feelings (Salatiga, 2016). Teachers may encourage students to discuss and share thoughts about a reading topic in relation to their first language, culture, and real life experiences.

The next component is overt instruction, which aims to prepare students for competent participation in classroom tasks. The overt instruction takes place when teachers provide explicit information in order to give students direct assistance regarding the complexities of reading and writing as well as to help them explore their thinking and gain understanding.

Since the name “overt instruction” itself could be misleading, The New London Group (1996) elaborates that overt instruction does not imply direct drills or rote memorization. Instead, it is collaboration between teacher and students to build a critical understanding of the subject content while developing a conscious awareness to the form and function of multimodal meaning-making resources. Additionally, it also involves the development of a metalanguage to describe multimodal design elements.

Critical framing is another component. It aims to encourage students to make a critical judgment based on a particular social context. Cazden (2006), cited in Cope and Kalantzis (2005), elaborates that the word critical has two pedagogical meanings: to analyze functions or to be evaluative with respect to relationships of power. In the case of the multiliteracies pedagogy, critical framing involves analyzing text functions and critically interrogating the interests of participants in the communication process.

The New London Group (1996) clarifies that critical framing helps students to analyze what they are learning from a critical perspective by connecting students’ experiences to the wider social and cultural context or vice versa.

In a reading lesson, this simply means students learning to analyze and evaluate what they read. Salatiga (2016) recommends that questions that stimulate students to see how the discourse of the text is applied are needed. Critical framing focuses on questions that can support the process of reflection in the reading process so that students critique a text and come up with their own viewpoints. Teachers may design classroom activities that allow students to critique how ideas presented in a text influence the wider social and cultural context or how the ideas could be transformed and differently interpreted from other people’s perspectives, interests, and motives.

The last component is transformed practice, which aims to engage students in applying a revision of what they have learned in new contexts by designing a multimodal text. The New London Group (1996) describes that it is the process of

students taking their transformed knowledge back into the complex diversity of real-world situations.

As the name suggests, transformed practice urges students to transform meanings through the redesigned texts. In a reading class, this may include making new reflections of a text, transforming new understandings into pieces of writings or drawings, or relating multimodal understanding to other types of multimodal texts from different media.

These four components work in conjunction with each other, rather than as separate chronological stages. Cope and Kalantzis (2016) stated that the multiliteracies pedagogy suggests a classification of activity types that students can do to learn.

However, the four components do not explicitly prescribe the order and the types of activities. Rather, they give suggestions for teachers to plan the sequence and to supplement their existing practices by designing the range of activity types carefully. Therefore, activities can be varied depending on the subject domain and the orientation of students.

### **2.3.5.3 The Four Resources Model**

The Four Resources Model was developed to assist teachers in teaching how to read multimodal texts. To achieve this, there are four explicit roles of the reader that allow for the social and textual realms to converge and make meaning. Luke and Freebody (1999) believed that effective readers needed to use four roles: code breaker, text participants, text user, and text analyst, to comprehend a text.

The first role is code breaker, which emphasizes decoding and encoding the codes, symbols and conventions of multimodal texts in response to contextual factors. To be an effective code breaker, students need to be able to decode symbols, whether it is letters on a page or a symbol on a graphic. In practice, students need to be able to read text.



Next, text participant highlights comprehending and composing or making meaning from multimodal texts in order to gain basic comprehension of the text. To be the text participant, students need to use their background and personal experiences to interact with the text. Some challenges encountered may include assumed knowledge, new vocabulary, and slang.

The next role is text user. Its emphasis is on understanding the purposes of different multimodal texts and using them in different ways for different cultural and social functions. In order to become a text user, students should be aware of the text's purpose and how they can make use of the text.

For example, a recipe can be read in a variety of ways. If students are looking for a recipe that they may enjoy, they may only skim the ingredients list or look at the pictures. On the other hand, if they need to cook some dishes, they have to carefully read and follow the instructions precisely in the correct order.

The last role is text analyst, which focuses on understanding that multimodal texts are not neutral but represent particular points of view. To be an effective text analyst, students need critical competence.

Table 2.4 displays a summary of the four roles in the model.

**Table 2.4.** *The Four Resources Model*

<b>Role</b>	<b>Skill</b>	<b>Ability</b>
Code breaker	Coding competence	Break the code of written texts by recognizing and using fundamental features and architectures, including alphabet, sounds in words, spelling, and structural conventions and patterns
Meaning maker	Semantic competence	Participate in understanding and composing meaningful written, visual, and spoken texts, taking into account each text's interior meaning systems in relation to their available knowledge and their

		experiences of other cultural discourses, texts, and meaning systems
Text user	Pragmatic competence	Use texts functionally by traversing and negotiating the labour and social relations around them - that is, by knowing about and acting on the different cultural and social functions that various texts perform inside and outside school, and understanding that these functions shape the way texts are structured, their tone, their degree of formality, and their sequence of components
Text critic	Critical competence	Critically analyze and transform texts by acting on knowledge that texts are not ideologically natural or neutral - that they represent particular points of views while silencing others and influence people's ideas - and that their designs and discourses can be critiqued and redesigned in novel and hybrid ways

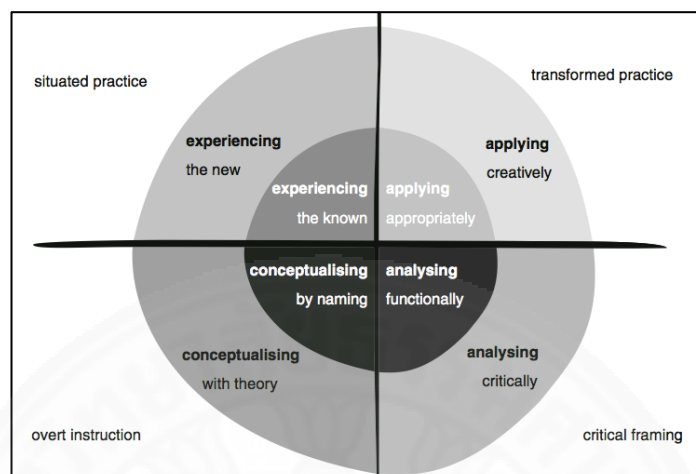
#### 2.3.5.4 Learning by Design

The New London Group's four components of multiliteracies have been reframed into a more practical and explicit pedagogical guideline for lesson planning.

Cope and Kalantzis (2005) have translated and expanded the multiliteracies pedagogical components into four knowledge processes: experiencing (situated practice), conceptualizing (overt instruction), analyzing (critical framing), and applying (transformed practice). The reiterative pedagogical framework is termed as Learning by Design.

The Learning by Design framework provides ways for schools to address changing educational contexts and the multiliteracies agenda. Through this framework, teachers can design classroom activities or tasks that engage students with

active learning, inquiry, and problem solving and immerse them in an environment where they can use multimodality as a means to interrogate and communicate their voices (Cope & Kalantzis, 2008).



**Figure 2.3.** Learning by Design

Shown in Figure 2.3, the Learning by Design framework comprises four major orientations of learning that are broadened into eight pedagogical acts; namely, experiencing the known, experiencing the new, conceptualizing by naming, conceptualizing with theory, analyzing functionally, analyzing critically, applying functionally, and applying creatively.

The first knowledge process is known as experiencing, focusing on connecting the school learning to students' out-of-school experiences. It offers engagement and scaffolding so that all students are able to participate (Haren, 2010). Since human cognition is situated and contextual, Cope and Kalantzis (2005) argued that effective learning entails students' identities. The starting point of learning should then be grounded on students' experiences, interests, and motivations.

In "experiencing the known", students bring what they know, discuss their diverse background knowledge, and reflect upon their own experiences and interests. Cope and Kalantzis (2005) believed that relating the learning to students' lived experiences could ignite their interests in learning in the following step.

Once students become less inhibited, they are moving to “experiencing the new”. In this process, they are immersed in an unfamiliar domain of experience, either real (places, communities, situations) or virtual (presented texts, images, data, facts or other represented meanings).

Experiencing the new can be comparable to stepping-stones, where students encounter new experiences and hands-on activities. However, this should not go further than the students’ zone of safety. Referring to Vygotsky’s zone of proximal development, Cope and Kalantzis (2005) suggested that experiencing the new is an activity or a task that is half familiar to students’ own lifeworlds, yet requires new learning.

The next knowledge process is conceptualizing, which enables students to develop common understandings of a subject matter and a shared language for further learning. Conceptualizing is not merely a matter of teacher or textbook learning but a process where students actively conceptualize and generalize the knowledge (Cope & Kalantzis, 2015).

Conceptualizing occurs in two ways. First is through conceptualizing by naming, which is a knowledge process in which students learn to use abstract, generalizing terms. It entails students grouping things into categories or identifying some similarities and differences. By these means, students develop vocabularies used to describe and explain deep, specialized, disciplinary knowledge. Second is conceptualizing with theory. In this process, students make generalizations by connecting concepts and developing theories. According to Cope and Kalantzis (2015), such theorizing involves explicit, overt, systematic, analytic, and conscious understanding, and uncovers implicit or underlying realities that may not be immediately obvious from the perspective of lifeworld experience.

Analyzing is the third one, which involves the examination of cause and effect, structure and function, elements and their relationships. It requires reasoning in the form of explanation and argumentation.

Analyzing takes two forms: functionally and critically. Analyzing functionally occurs when students examine the function of a piece of knowledge, action, object or represented meaning. This includes processes of reasoning, drawing inferential and deductive conclusions, establishing functional relations such as between cause and effect, and analyzing logical connections. For instance, Cope and Kalantzis (2015) gave an example that analyzing functionally may involve examining the choices made by creators in the design of a multimodal knowledge representation and the effects of these choices in the representation of meanings.

On the other hand, analyzing critically aims to interrogate human intentions and interests. Cope and Kalantzis (2015) elaborated the differences between the two forms of analyzing; analyzing functionally is primarily informational, while analyzing critically is mainly argumentative. The orientation of analyzing functionally is to examine the objective world but the orientation of analyzing critically is to interrogate the world of human's subjectivity.

The last knowledge process is applying, in which students actively apply experiential, conceptual or critical knowledge. It can occur in two ways. First is applying appropriately. In this way, students simply try their knowledge out in real world or simulated situations to see whether it works in a predictable way in a conventional context. Second is applying creatively. This is when students make a creative intervention in the world in order to express their own voices or transfer their newly acquired knowledge into a new setting. This kind of transformation may result in imaginative originality, creative divergence or hybrid recombination and juxtapositions that generate novel meanings and situations (Cope & Kalantzis, 2015).

The summary of the connection between the Four Components of Multiliteracies Pedagogy and the Learning by Design is illustrated in Table 2.5.

**Table 2.5.** *The Connection between Multiliteracies Pedagogy and Learning by Design*

<b>Multiliteracies Model</b>		<b>Learning by Design</b>	
Situated Practice	The immersion in experience and the utilization of available designs of meaning	Experiencing	<ul style="list-style-type: none"> <li>• the known - learners reflect on their own familiar experiences, interests, and perspectives</li> <li>• the new - learners observe or take part in something that is unfamiliar or immerse in new situations and contents</li> </ul>
Overt Instruction	The systematic, analytic, and conscious understanding of designs of meaning and design processes	Conceptualizing	<ul style="list-style-type: none"> <li>• by naming - learners group things into categories, apply classifying terms, and define these terms</li> <li>• with theory - learners make generalizations using concepts, and connect terms in concept maps or theories</li> </ul>
Critical Framing	Interpreting the social and cultural contexts, where students critically view their study topic in relation to its context	Analyzing	<ul style="list-style-type: none"> <li>• functionally - learners analyze logical connections, causes and effect, structure and function</li> </ul>

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			<ul style="list-style-type: none"> <li>• critically - learners evaluate their own and other people's perspectives, interests, and motives</li> </ul>
Transformed Practice	The transfer in meaning-making practice, which puts the transformed meaning to work in other contexts or cultural sites	Applying	<ul style="list-style-type: none"> <li>• appropriately - learners apply new learning to real world situations and test their validity</li> <li>• creatively - learners make an intervention in the world which is innovation and creative, or transfer their learning to a different context</li> </ul>

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In conclusion, the approaches of multiliteracies pedagogy focus on diversity and multimodality as key aspects as well as seek to accommodate the technological advancement that is a constant feature of the contemporary world.

Presented by the New London Group, multimodal representation would work best in comparison to solely written linguistic form for a better contemporary literacy education. The pedagogy of multiliteracies thus provides the frameworks for multimodal and pedagogical repertoires, which address the engagement, transformation, and diversity of the learner.

## 2.4 Task-based Learning

Task-Based Learning (or TBL) has been an important approach in language teaching for over twenty years after there was a major shift in language instructions from an emphasis on teacher-centered to learner-centered instruction. It is also known

as Task-based Language Learning (TBLL), Task-based Language Teaching (TBLT), or Task-based Instruction (TBI).

In the English language teaching (ELT) field, Task-based Learning is a learning approach that allows students to learn English through doing tasks. The TBL approach emphasizes the importance of organizing a course around authentic, communicative tasks that students need to do outside the classroom as well as stresses students doing tasks that require communicative language use.

#### **2.4.1 Definitions of Tasks**

Several researchers have been written about definitions of tasks from different perspectives.

According to Prabhu (1987), the person who developed TBL, task-based learning is defined as an activity which requires students to arrive at an outcome from using given information through utilizing some process of thought, and which allows teachers to control and regulate that process.

In a similar fashion, Willis (1996) claimed that the aim of a task is to create a real purpose for language use and to provide a natural context for language study. Thus, the tasks always have to be activities where students use the target language and which emphasize a communicative purpose in order to achieve an outcome.

Moreover, Nunan (1989) suggested that TBL consists of five features. The first is that it emphasizes communicating thoughts and ideas in the target language. Next is to introduce authentic texts into the learning situation. The third is about providing opportunities for students to focus on both language and the learning process. The fourth feature is to enhance students' personal experiences and schemata as important contributing elements to classroom learning. And the last feature is it links classroom language learning with language activation outside the classroom.

Based on Nunan (1989), the communicative task is a piece of work which involves students in comprehending, manipulating, producing or interacting in the target language while their attention is focused on mobilizing their grammatical



knowledge in order to convey meaning rather than to manipulate form. Furthermore, the task should also have a sense of completeness, being able to stand alone as a communicative act in its own right with a beginning and an end.

Although these researchers emphasized the different aspects of tasks, those definitions somehow share certain basic characteristics. Littlewood (2004) summarized the task characteristics as follows: The most obvious one is that tasks are seen as activities in which students work purposefully towards an objective. The objective could be one that students have set for themselves or one set by the teacher. Tasks may be carried out either individually or in groups. They may be carried out in collaboration or competition with others. Finally, the task outcome is both something concrete such as a presentation, a piece of work, a report, and something intangible such as an agreement or a solution to a problem.

#### **2.4.2 Different Types of Tasks**

Many researchers agreed that the most difficult thing for a teacher to do in a task-based learning approach is to design tasks. Nunan (1989) stated that classroom tasks are generally justified or rationalized in real-world tasks or pedagogical tasks.

Based on his notion, tasks with a real-world rationale require students to approximate the sorts of behaviors required of them in the world beyond the classroom. An example of a real-world task might be when the students listen to a weather forecast and identify the predicted maximum temperature for the day or decide whether or not to take an umbrella and a sweater to school (Nunan, 1989).

On the other hand, tasks with a pedagogic rationale require students to do a thing they would unlikely be called upon to do outside the classroom. For example, the students listen to an aural text and answer questions afterwards on whether given statements are true or false.

There are six major types of tasks that teachers could adapt for use with almost any kind of tasks and they suit various learning topics. The types of tasks are arranged ranging from the easiest to the most difficult ones, as follows.

The first and the easiest type of task is listing. This type of task involves simple working processes such as brainstorming and fact-finding, in which students share their ideas, knowledge, and experience in pairs or small groups and find some information or facts simply by asking each other or other people. The outcome is also simple too since it is a completed list or a draft mind map of something.

The second type of task is ordering and sorting. The task involves processes like sequencing items, actions and events in a logical way, categorizing items, and classifying items in different ways. This type of task requires students to practice their reasoning ability and common sense. The outcome depends on the capacity of ordering and sorting information according to specific criteria.

Next is a comparing task. This type of task requires processes that involve matching to identify specific points and relate them to each other, finding similarities and things in common, and finding differences. The task outcome is the identification of similarities and differences.

Fourth is a problem-solving task. The task requires students to use their reasoning skills, which can vary depending on the type and complexity of the problem. The outcome is the solutions to the problems.

The fifth type of task is sharing personal experiences. It is a good task that encourages students to talk more freely about themselves and share their experiences with others. The outcome is exchanging opinions and attitudes.

Lastly, the most difficult task is a creative task. It is a combination of every task type and requires various sorts of skills combined. It can be in the form of projects, which involve pairs or groups of students.

To conclude this part, Task-based Learning Approach (TBL) focuses on the use of authentic language on the part of students that requires meaningful participation and communication from them. The assessment is primarily based on the task outcomes rather than the accuracy of language forms. TBL is advantageous to the

students because it is more student-centered and it provides for practical skill building.

## **2.5 The Pedagogical Framework Adopted in This Study**

This study adopted the Learning by Design framework, suggest by Cope and Kalantzis (2005), in designing critical reading lesson plans based on multimodal tasks.

Having recently been developed, the framework gives a ready-to-use pedagogical outline that teachers can adopt to demonstrate their pedagogical repertoires in purposeful ways. Cope and Kalantzis (2008) stated that Learning by Design offers the pedagogical framework for teachers who want to engage their students with active learning, inquiry, and problem solving, as well as integrate multimodality into their disciplinary lessons in order to move towards multiliteracies.

Moreover, the framework also caters to teaching and learning for various academic and social domains such as English, Science, and History as it can be adjusted to fit a particular learning context and objective (Cope & Kalantzis, 2005).

In order to design the lesson plans used in this study, the framework was translated into pedagogical guidelines in accordance with the critical reading domains of the course to be investigated, as illustrated in Table 2.6. These pedagogical guidelines were converted into classroom instructions, discussions, and tasks in the lesson plans.

**Table 2.6.** *The Derived Teaching Model for Developing the Lesson Plans*

Learning by Design Framework (Kalantzis & Cope, 2005)		The Derived Teaching Model
<b>Experiencing</b>	<b>the known</b> Learners reflect on their own familiar experiences, interests and perspectives.	To activate students' schemata about a reading passage and review reading strategies and reading skills they have learnt
	<b>the new</b> Learners observe or take part in something that is unfamiliar.	To introduce students critical reading skill
<b>Conceptualizing</b>	<b>by naming</b> Learners group things into categories, apply classifying terms, and define these terms.	To familiarize students with the terms and functions of multimodality as a new concept of expression and communication
	<b>with theory</b> Learners combine concepts in order to generalize schemas or develop theories in discipline knowledge.	To have students generalize the concept of multimodality to the reading course by designing a multimodal artifact that represents their understanding through a comprehension reading assignment
<b>Analyzing</b>	<b>functionally</b> Learners analyze logical connections, cause and effect, structure and function.	To train students how to approach a reading passage by analyzing the elements such as topic, main idea, supporting details, and key vocabularies for comprehension
	<b>critically</b> Learners evaluate their own and other people's perspectives, interests and motives.	To develop students critical reading skill so they are able to make inferences and form conclusions about a reading passage
<b>Applying</b>	<b>appropriately</b> Learners apply knowledge in a typical, expected situation	To have students apply comprehension reading skills via exercises in the coursebook
	<b>creatively</b> Learners transfer their learning to a different context through a creative innovation.	To have students design a <b>multimodal task</b> in order to present their critical reading stances to a reading passage in a creative, multimodal way

Based on Table 2.6, the pedagogy started with activating students' schemata that include prior knowledge or experiences. This was done mainly through a class discussion. The purpose of activating schemata was to have the students recreate an experience so they would be able to associate new information to be obtained from a reading passage with what is already known.

Since students had diverse backgrounds plus different academic and personal experiences, the activation of schemata served as a window on how students view the world and what they were learning.

After that, in order to prepare them for learning, new vocabulary and trivial information related to a reading passage were also introduced to the students through multimodal resources such as a VDO clip, song, or a comic strip.

The conceptualizing stage was a direct lecture and discussion done in a very explicit way. It was the portion of the lesson where the reading text presented would be very much teacher-led, but student-oriented, as it aimed to add depth of understanding to the textual practice and enrich comprehension of the text. The students read the text and probed deeper into it by identifying the topic, finding the main idea and supporting details, and discussing key terms.

After that, the students synthesized concepts gained from the text in order to make a summary or form a hypothesis. Activities included designing a graphic organizer, completing a KWL chart, drawing an online mind map, etc.

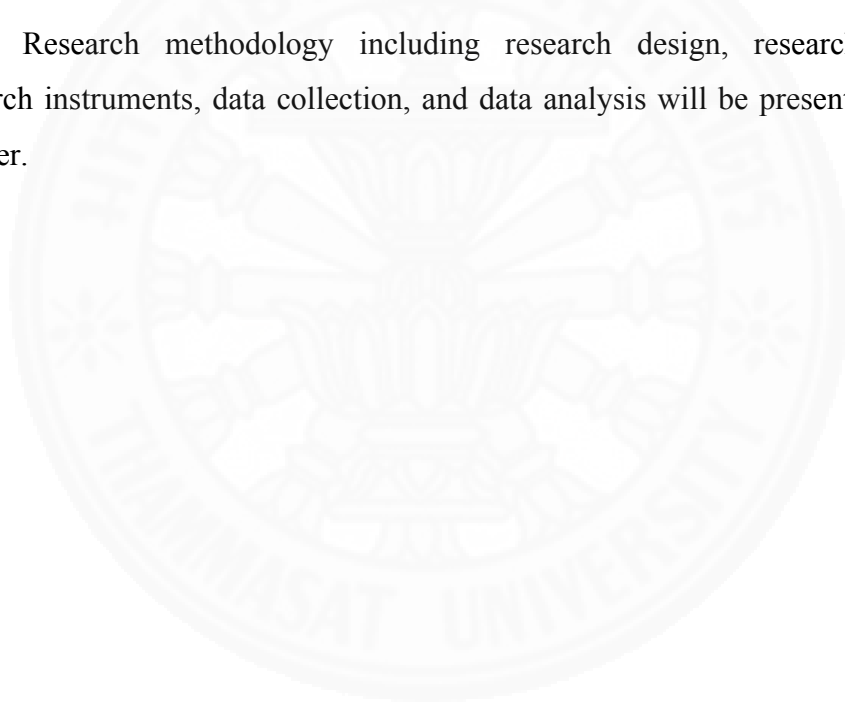
The stage after this is the core of the lessons, which is about analyzing the text both functionally and critically. In analyzing functionally, students are guided on how to examine the structure, genre, and function of the text. This is more than just drilling information into students. In fact, it is about giving students frameworks that they can use to view the text in deeper ways. Students are introduced the concept of multimodality and have an opportunity to explore how it contributes to a meaning-making process.

Then, they critically analyze how the text might work in other social or ideological contexts, and interrogate the rhetorical purposes, audiences, and other contextual elements, including multimodality, at play in the text. It can be said that the objective of analyzing critically is to develop students' critical reading stances so that they are able to express their opinions and form judgments towards the information given in the text. This can be accomplished through a mini-lecture, discussion, and debates.

Finally, the lessons end with the applying stage that entails applying appropriately and creatively. In applying appropriately, students are required to demonstrate their comprehension and critical reading ideas derived from a reading passage through multimodal representations.

Applying creatively is where the multimodal tasks take place. After reading, students create multimodal representations, for example, a video clip, a poster, a comic strip, or a collage, as a means to transfer their understandings and present their critical reading stances, including their judgment and evaluation, of the reading text. At this stage, the students have an opportunity to work on multiple types of modes and a wide array of literacy practices, which would reinforce their multiliteracies.

Research methodology including research design, research procedures, research instruments, data collection, and data analysis will be presented in the next chapter.



## **CHAPTER 3**

### **METHODOLOGY**

This chapter presents the research methodology of this study. It starts with describing the research setting as well as the population and sample technique. Then, the research design is discussed. The research instrumentation and data collection procedures are elaborated in the next part. Finally, the chapter ends with the methods of data analysis and ethical considerations.

#### **3.1 Research Setting**

##### **3.1.1 The University Setting**

The university where this research study was carried out is an autonomous, public university in Bangkok, Thailand. It is highly regarded as one of the country's prestigious public universities and is well-known for its excellent academic reputations in the fields of agriculture, forestry, and fishery. The objective of the university is to create intellectual graduates who are able to function well in local and international labour markets. Recently, the university has expanded its academic disciplines to 15 faculties covering various fields of study such as science, arts, social sciences, humanities, education, business administration, economics, engineering, veterinary medicine, and architecture. In each academic year, there are approximately 30,000 students enrolled in undergraduate programs.

##### **3.1.2 Fundamental English Reading Course**

Regarding English courses, the university provides a wide range of courses to meet students' academic and future professional needs. All students at the university are required to complete four compulsory English courses, which are Foundation English I, Foundation English II, Foundation English III, and Foundation English IV. The first three courses are structured in the study plan, each of which focuses on developing students' overall English proficiency at a different level.

For the Foundation English IV course, which is the setting of this study, students are given freedom to enroll in a course based on their preferences. A variety of selections are available to them, ranging from English for academic purposes to English for careers as well as English for specific purposes.

The course that was investigated in this study is Fundamental English Reading, which is one of the Foundation English IV courses offered to students. Based on the curriculum, the Fundamental English Reading course is described as intermediate English for academic reading purposes. Its objective is to teach academic English reading skills necessary for students at tertiary level such as vocabulary development, reading comprehension, and critical reading.

The class meets twice a week. The duration of each meeting is 90 minutes. In a semester, the course lasts for 15 weeks, or 45 hours of instructional engagement.

For the structure of the course, the Fundamental English Reading is comprised of two modules. The first module is vocabulary skills, which covers the first eight weeks of the semester. Lessons focus on different strategies to draw the meaning of unknown words such as analyzing word parts and using context clues, as well as on dictionary skills.

This study; however, emphasized the second module, which takes up the other seven weeks of the semester or after the mid-term exam. This module enforces the application of the reading skills. Lessons in this module focus on reading comprehension and critical reading such as finding the main idea and supporting details, skimming and scanning, as well as making inferences and predictions from both fiction and non-fiction texts.

The assessment procedures include five quizzes and two exams. The quizzes are arranged at the end of units to assess students' ability to analyze word structures including prefixes and suffixes, to draw the word meaning from context clues, to use a dictionary, to find the main ideas, and to make inferences, respectively. Out of the



total of 100 points, each quiz is worth 3 points. Moreover, exams are divided into mid-term and final exams. The mid-term exam focuses on the first module; that is, vocabulary skills, and is worth 35 points. The final exam is designed to assess the content of the second module, which is comprehension and critical reading, and is worth 40 points.

Displayed in Figure 3.1, the exams and quizzes take up 90 percent of the total 100 points. The other ten points are allocated to SRA assignments based on completion. The SRA or Self-Reading Laboratory Kit is a large box filled with color-coded reading exercises where students independently work on vocabulary building and reading comprehension, including critical reading skills, while receiving the teacher's supervision from time to time. In order to pass the course, the students must acquire 50 percent, or 50 points, for grade D+. Getting a grade below D+ means failure, resulting in students having to retake the course.

<b>Course Requirements (100 Points)</b>		
(1) Midterm Exam	35	points
(2) Final Exam	40	points
(3) Quizzes	15	points
(4) SRA Assignments	10	points

**Figure 3.1.** The Score Distribution Taken From the Course Syllabus

Based on the course description, an aspect of the English Reading course is to enhance students' critical reading ability. Therefore, this course is suitable for this study as the primary objective of this study is to investigate the effects of the new method to teach critical reading.

It should be noted that whilst the teaching method will be different from the traditional practice, the course contents and units of study, as well as the assessment and evaluation, prescribed in the course syllabus will remain the same.

### 3.2 Population and Sample

Based on the record from the Office of the Registrar, the Fundamental English Reading course usually offers an availability of 14-16 sections for enrollment every semester. Each section can accommodate 40 students maximum. The calculation suggests that there are usually 600 students taking this course in each semester. This number of students represented the target population of this study.

Of all students taking the Fundamental English Reading course in the second semester of 2017, the participants of this study were 63 students who enrolled in the course through the university's regular registration process.

The participants were chosen through convenience sampling method. According to Nunan & Bailey (2009), convenience sampling is a type of non-probability sampling method in which the sample is drawn from the population based on ease of access. There were two sections that the researcher was assigned to teach. The numbers of the students in each section were 35 and 28. The students were asked for their consent to voluntarily participate in this study. Based on the sampling technique, the participants in this study were considered intact groups.

Owing to the fact that the participants had passed the course requirements; namely, Foundation English I, Foundation English II, and Foundation English III, before taking the Fundamental English Reading course, their English proficiency should be roughly homogenous at the intermediate level.

However, in order to confirm that the participants were at the same level at the outset of the study, a validated reading test taken from the university's in-house proficiency test was administered to them.

Table 3.1. *Result of English Reading Proficiency Test*

<b>Independent Sample t-Test</b>						
<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SE</b>	<b>t</b>	<b>Sig.</b>
Control	28	10.682	4.8456	.8998	-.823	.862
Experimental	35	11.914	5.2824	.8929	-.830	

\*p < .05

As displayed in Table 3.1, the result of the Independent Samples t-Test showed that there was no statistically significant difference between the English reading proficiency scores of the participants in the two groups at 0.05 level (sig. = .414). Thus, it can be claimed that the participants were fairly equal in terms of their English reading proficiency.

For their demographical background, the participants in the two groups were also similar. They were a mixture of Thai male and female students, whose ages ranged from 19-21 years old, from different faculties and years of study. They were a combination of students from different parts of Thailand. Based on these premises, the participants in the two groups were more or less similar in terms of their demographic background and social status.

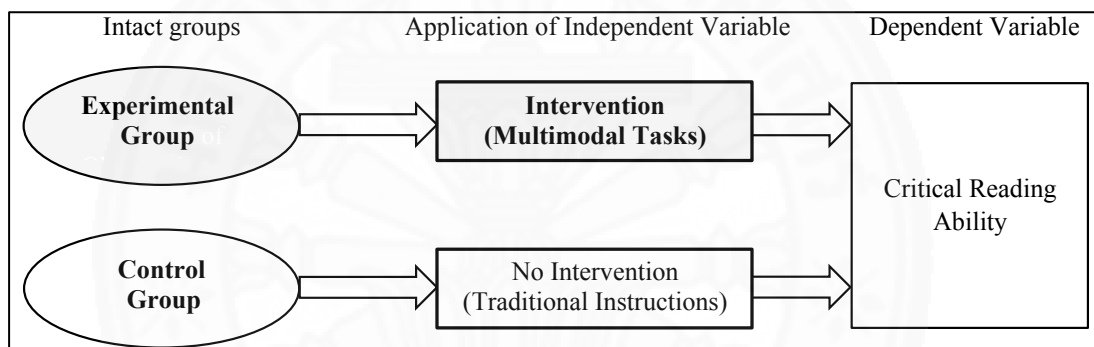
### **3.3 Research Design**

The design of this present study was a quasi-experimental research with two groups of participants, using a mixed-method approach in collecting and analyzing data.

Based on the sampling method used in this study, which was convenience sampling, this study was a quasi-experimental research in design. According to Nunan and Bailey (2009), this design is often described as a nonrandomized, pre-post intervention study. It is a form of experimental research used extensively in the social

sciences and psychology because the researcher usually lacks control over the sampling and assignment of participants.

The major objective of this research study was to investigate the effects of multimodal tasks on critical reading ability of the students. Therefore, the independent variable, which is defined as the causal variable that determines the value of the other variable (Nunan & Bailey, 2009), was the Learning by Design teaching approach that integrated multimodal tasks into the teaching of critical reading. The dependent variable, which is described as the variable that is observed and measured to determine the effect of the independent variable (Nunan & Bailey, 2009), was critical reading ability of the students.



**Figure 3.2.** The Design of This Study

Figure 3.2 depicts the design selected to investigate the effects of multimodal tasks on students' critical reading ability. Intact groups of participants were assigned into the experimental group and the control group. They learnt the same course contents prescribed by the syllabus. However, what was different between the two groups was the teaching approach for critical reading.

In the experimental group, the participants received the treatment. They were taught critical reading based on the Learning by Design pedagogical framework that included the multimodal tasks. The participants learnt and practised making inferences, which is the aspect of critical reading highlighted in this course, while, at the same time, engaging in multimodal applications. They were introduced to multimodality and how these multimodal modes could help in conceptualizing a

reading passage they encountered. Moreover, the participants were trained in how to effectively employ the multimodal modes in expressing ideas. To apply all the concepts they were taught, the participants were assigned the multimodal tasks where they had to convey their inferences made on a reading passage in a multimodal form.

On the other hand, the control group did not receive any treatment. They were taught inferences through the conventional teaching approach used in the course. That is to say, the teaching was text-based, followed with writing tasks that required the participants to write what they could infer from the reading passage.

The differences concerning the teaching approaches, or the independent variable, between the experimental group and the control group are displayed in Table 3.2.

Table 3.2. *Differences Concerning Teaching Approaches Between the Two Groups*

<b>Areas</b>	<b>Experimental Group</b>	<b>Control Group</b>
<b>Teaching and Learning</b>	- Student-centered - Students discuss with teacher, construct their own knowledge, and integrate multimodality in conceptualizing their critical understandings of a reading passage.	- Teacher-centered - Teacher disseminates information, directs translations, leads class discussions, and asks elicitation questions.
<b>Class Tasks</b>	- Interactive, multimodal	- Text-based
<b>Roles of Teacher</b>	- Teacher is interactive, rooted in negotiation.	- Teacher is directive and rooted in authority.
<b>Roles of Students</b>	- Students are the constructors of knowledge. - They work in pairs, in	- Students are passive and recipients of knowledge. - They work alone.

	groups, or alone, depending on the purpose of task and activity.	- They have few controls over the tasks assigned to them. They can only write what they infer from the reading passage.
	- They have choices of the tasks assigned to them.	
	They can employ several multimodal modes they prefer and are comfortable with in conveying their inferences made on a reading passage.	
<b>Knowledge, understanding, and interpretation derived from a reading passage</b>	- Multimodal	- Traditional, text-based

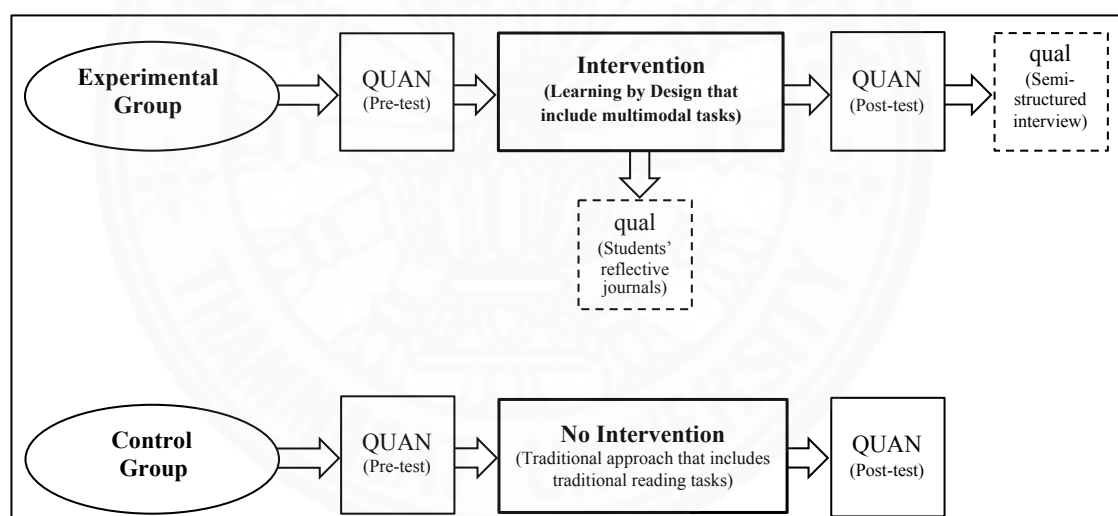
In order to minimize any threats to internal validity, some variables that might affect the dependent variable were controlled. For this present study, the settings and the environments of the two groups of participants were organized correspondingly. Moreover, the class meetings of the two groups were on the same days: Tuesdays and Thursdays. One group studied from 8-9.30 am, while the other group was from 9.30-11 am. Besides, the participants in the experimental and the control groups studied with the same teacher and used the same coursebook.

Moreover, in terms of data collection and analysis, this study adopted a mixed-methods approach, which allows for an integration of quantitative and qualitative types of data.

The reason that the mixed-methods approach was employed in this study was that various sources, both quantitative and qualitative, would provide data of different

aspects to answer the research questions (Bryman, 2006). In addition, several data sources allow the researcher to carefully examine the same phenomenon in order to gain depth and breadth of understanding to the research problem as well as to triangulate the findings (Creswell et al., 2009).

As presented in Figure 3.3, the main focus of this study was on quantitative data, while the qualitative counterpart served as a supplementary source to support the findings. Creswell, Plano Clark, et al. (2003) defined this type of data collection and analysis as the embedded design, which refers to having different types of data inserted within the research study. The key attribute that differentiates the embedded design from the other types of the mixed-methods approaches is that the secondary data type always gives a supplementary explanation to the main findings that are based on the other type of data.



**Figure 3.3.** The Mixed-Methods Approach for Data Collection and Analysis

From Figure 3.3, the quantitative data were the critical English reading pre-test and post-test. They provided an answer to the first research question regarding the effects of multimodal tasks on critical reading ability of the students.

On the other hand, the qualitative counterparts were students' reflective journals and semi-structured interviews. They subsidiarily provide contextual factors in the

intervention process that may impact the research outcomes, as well as to add on the participants' experiences in explaining the quantitative results of the experiment (Creswell & Plano Clark, 2007).

To conclude this part, this study was a quasi-experimental research design with two intact groups of participants. It adopted a mixed-methods approach to collect and analyze data. The two groups of participants were taught critical reading through different teaching approaches. The participants in the experimental group received the multimodal tasks as the treatment. They were taught critical reading based on the Learning by Design pedagogical framework that included the multimodal tasks. On the other hand, the participants in the control group were taught critical reading through traditional teaching approaches. However, the settings and the environments remained the same for the two groups in order to strengthen the internal validity of the research study.

### **3.4 Instrumentation**

#### **3.4.1 Lesson Plans**

The intervention of this study was the integration of multimodal tasks into the teaching of critical reading. Adopting the Learning by Design pedagogical framework (Cope & Kalantzis, 2005), the lesson plans were designed to cover the 9-week learning objectives and contents of the second module of the Fundamental English Reading course.

##### **3.4.1.1 Development of the Lesson Plans**

In the development of the lesson plans, the eight pedagogical acts suggested in the Learning by Design framework were mapped with the learning objectives and contents of the second module of the course being investigated in this study. This derived the teaching model, which was converted into instructional processes for integrating multimodal tasks into the teaching of critical reading in this study.



Table 3.3. *The Derived Teaching Model*

<b>Learning by Design Framework (Kalantzis &amp; Cope, 2005)</b>		<b>The Derived Teaching Model</b>
<b>Experiencing</b>	<b>the known</b> Learners reflect on their own familiar experiences, interests and perspectives.	To activate students' schemata about a reading passage and review reading strategies and reading skills they have learned
	<b>the new</b> Learners observe or take part in something that is unfamiliar.	To introduce students to critical reading skills
<b>Conceptualizing</b>	<b>by naming</b> Learners group things into categories, apply classifying terms, and define these terms.	To familiarize students with the terms and functions of multimodality as a new concept of expression and communication
	<b>with theory</b> Learners combine concepts in order to generalize schemas or develop theories in discipline knowledge.	To have students generalize the concept of multimodality to the reading course by designing a multimodal artifact that represents their understanding through a comprehension reading assignment
<b>Analyzing</b>	<b>functionally</b> Learners analyze logical connections, cause and effect, structure and function.	To train students how to approach a reading passage by analyzing the elements such as topic, main idea, supporting details, and key vocabularies for comprehension
	<b>critically</b> Learners evaluate their own and other people's perspectives, interests and motives.	To develop students critical reading skills so they are able to make inferences and form conclusions about a reading passage
<b>Applying</b>	<b>appropriately</b> Learners apply knowledge in a typical, expected situation	To have students apply comprehension reading skills via exercises in the coursebook
	<b>creatively</b> Learners transfer their learning to a different context through a creative innovation.	To have students design a <b>multimodal task</b> in order to present their critical reading stances to a reading passage in a creative, multimodal way

The lesson plans were designed to cover 9 weeks of the class meetings. There were two multimodal tasks for the participants to perform. One was based on a non-fiction text and the other was based on a short story. Table 3.4 shows the outline of the lesson plans.

**Table 3.4.** *The Outline of The Lesson Plans*

			<b>Lesson Plans</b>
<b>Week</b>	<b>Day</b>	<b>Knowledge Processes</b>	
	Tu		- pretest -
9	Thu	Experiencing the known	Introduction to critical reading
		Experiencing the new	(Lecture-based)
10	Tu	Conceptualizing by naming	Introduction to multimodality
	Thu		(Lecture-based)
11	Tu	Conceptualizing by theorizing	Generalization of multimodality into reading practices by
	Thu		creating a multimodal artifact that presents a summary to a reading passage
<b>Type of text: Non-fiction</b>			
12	Tu	Analyzing functionally	Learning and practicing reading comprehension skills
	Thu	Analyzing critically	Learning critical reading strategies and how to make inferences on a reading passage
13	Tu	Analyzing critically	Integration of multimodality into critical reading and practice how to make inferences from pictures
	Thu	Applying appropriately	Practicing reading exercises
14	Tu	Applying creatively	<b>Multimodal task I</b> - Create a multimodal representation to convey the author's viewpoint and inferences made on what Thailand would be like if gambling were
	Thu		

		legalized in Thailand.	
<b>Type of text: Short story</b>			
15	Tu	Analyzing functionally	Learning and practicing reading comprehension skills
	Thu	Analyzing critically	Learning critical reading strategies and how to make inferences on a reading passage
16	Tu	Analyzing critically	Integration of multimodality into critical reading and practice how to make inferences from pictures
		Applying appropriately	Practicing reading exercises
	Thu	Applying creatively	<b>Multimodal task II</b> - Create a multimodal representation that convey the inferences made on the setting of the story and personalities of the characters.
17	Tu	Applying creatively	
	Thu		- posttest-

Examples of the lesson plans are provided in Appendix D.

### 3.4.1.2 Validation of the Lesson Plans

All of the lesson plans were sent to experts in the field of English language teaching for content validity.

Adopting the Index of Item-Objective Congruence technique (IOC), the validation form of the lesson plans was a three-point rating scale, composed of a list of items that allow the inspection of the content validity of the designed lesson plans (Rovinelli & Hambleton, 1977). The areas of validation of the lesson plans were

adapted from Worakitsawat (2007) and Srisirasasipon (2011) to include objectives, teaching procedures, materials, and tasks and evaluation.

There were three experts. They validated whether the lesson plans were in accord with the principles of the Learning by Design framework and gave scores of 1 (congruent), 0 (questionable or unclear), or -1 (incongruent). Also, an open-ended section was provided for additional comments and suggestions that the experts had.

The scores of each item from the three experts were added and calculated for mean. Only items that received the mean between 0.5-1.00 were considered valid. On the contrary, items with the mean below 0.5 were invalid and were revised. The results of the validity of the lesson plans are provided in Appendix F.

After the revision based on the experts' comments and suggestions, the pilot study was run to confirm the feasibility of the lesson plans.

### **3.4.2 Rubric for Multimodal Tasks**

In order for the teacher-researcher to give comments and feedback on the participants' multimodal tasks as part of the teaching and learning process, a rubric was also provided.

#### **3.4.1.1 Development of the Rubric for Multimodal Tasks**

In this study, the rubric was in the form of an analytic rubric with a detailed rating scale, in which the areas of evaluation were displayed at the top, followed by a grid with descriptive statements of what was expected for each level of performance across the row.

The rubric for multimodal tasks was developed in line with the rubric for evaluating students' reading tasks prescribed in the course. Based on Reed (2008) and Leist, Woolwine, and Bays (2012), the rubric for multimodal tasks covered five areas; namely, inferences, evidence of thoughts, delivery, use of multimodality, and knowledge application (see Appendix G).

### **3.4.1.2 Validation of the Rubric for Multimodal Tasks**

Similar to the lesson plans, the validation was done through the IOC protocol. The three experts in the field of English language teaching rated whether they thought that each area in the rubric was appropriate for evaluating the participants' multimodal tasks. Moreover, they were asked to validate whether the rubric prescribed in the course and the rubric designed for multimodal tasks in this study were equivalent in assessing students' critical reading tasks.

The validation form included a three-rating scale, ranging from 1 (congruent), 0 (questionable/unclear), to -1 (incongruent). In addition, an open-ended section was included for the experts to provide additional comments and suggestions if they disagreed with any area or thought it was questionable.

The IOC scores of each item were calculated for mean score. The items with the mean scores between 0.5-1.00 were valid, while those with the mean scores below 0.5 were considered invalid and were revised according to the suggestions of the experts (See Appendix I).

### **3.4.3 Critical Reading Test**

To assess the critical reading ability of the participants before and after the intervention, a critical English reading test was developed.

#### **3.4.3.1 Development of the Critical Reading Test**

As suggested by Brown & Abeywickrama (2010), the critical reading test was developed according to the following steps. The very first step was outlining the test blueprint and specifications. The test was a combination of 17 items of multiple-choice questions and 13 items of open-ended questions. The construct of the questions focused on the ability to make inferences, which is the sub-skill of critical reading emphasized in this study.

The next step was selecting reading passages. The test consisted of 7 reading passages of various topics and genres, adapted from books, magazines, and websites.

The passages were between 150-300 words, which, according to Srisirasasipon (2011), is about the same length as those used in the standardized tests.

Finally, the two last steps were writing the test and validating it.

#### **3.4.3.2 Validation of Critical Reading Test**

The test was inspected for its content validity, revised, and piloted before its actual use through the Index of Item-Objective Congruence protocol (IOC).

This study adapted the test validation form of Kongkapet (2007). The validation form was given to the three experts to give on a three-point rating scale. They examined whether the test met its objective of assessing the ability to make inferences and rated it from 1 (congruent), 0 (questionable or unclear), to -1 (incongruent). Also, an open-ended section was provided for additional comments and suggestions the experts may have had. The scores from the three experts were added and calculated for mean. Only the test items that receive the mean score between 0.5-1.00 were considered valid. On the contrary, the test items were invalid and revised when the scores were below 0.5 (see Appendix L).

After the revision, the test was trialed with a group of students who represented the same population as the prospective participants to find its reliability index. The pilot testing scores were calculated for item analysis with the Statistical Package for Social Sciences (SPSS) program using reliability coefficient (Kuder-Richardson 20 formula or KR 20). The difficulty index of the test was 0.59 and  $\alpha$  coefficient of reliability was 0.83. According to Brown (2005), cited in Srisirasasipon (2011, p.60), a reliability test should have its difficulty index between 0.20-0.80 and its reliability value (R-value) of over 0.70. Therefore, the results of the pilot study suggested that the test was reliable and valid.

#### **3.4.4 Students' Reflective Journals**

There are various forms of reflective writing such as reports, portfolios, journals and, more recently, emails. However, Ward & McCotter (2004), cited in Moussa-Inaty (2015), suggested that a reflective journal is the most effective and meaningful form of written reflection.

A reflective journal is a piece of writing that reflects the students' insights, thoughts, experiences, and concerned issues on assigned topics, rather than a summary of what they have learnt. Based on Farrah (2012), a student's reflective journal is considered a personal record of their experiences, opinions, thoughts and feelings, events, or new information. It is a way to achieve clarity and better understanding of what the students are thinking about their learning. Besides, it provides emerging data that sheds light on the other aspects of the teaching and learning that intrigue further investigation of the research (Creswell, 2013).

In this study, the objective of the reflective journals was to gain a contextual understanding of the participants' perceptions towards the multimodal tasks. The participants were encouraged to keep their journals on a daily basis, not only to reflect on their experiences of performing the multimodal tasks but also to reflect on their feelings and thoughts of how the lessons on each particular day went.

In terms of the format, the reflective journals were a semi-structured open-ended format for the sake of flexibility. This would allow the participants to express their views freely, while also allowing the teacher-researcher some controls over the content of the journal (Nunan & Bailey, 2009). A Google Doc was created for each participant because it accommodated real-time editing and collaboration of plain text documents. The teacher-researcher could read the participants' journal and interact with them in order to probe for more information and to reassure that the participants would not miss important points in reflecting their experiences. This was done to ensure the quality of the content of the reflective journals.

Apart from the content, the language should be also taken into consideration. In order to avoid any language barriers that may hinder their full reflection, the participants were allowed to write in either Thai or English.

Moreover, for the ease of data analysis and retrieval for future references, the participants were asked to type their reflective journals and submit them via Google Doc.

### **3.4.5 Semi-Structured Interview**

The semi-structured interview was administered to the participants in the experimental group after the end of the semester. The objective was to obtain their perceptions towards the multimodal tasks. This provided an in-depth understanding of how multimodal tasks contributed to the development of critical reading ability. Data from the semi-structured interview, together with those from the reflective journals, also explained the causal relationship of the intervention and the participants' learning outcomes.

The type of interview employed in this study was the semi-structured interview because it permitted an advance preparation while it still was flexible enough for the researcher to discover valuable information that occurred during the interview. According to Nunan & Bailey (2009), the semi-structured interview is commonly conducted in a qualitative inquiry because of its flexibility. It offers a middle ground between structured and unstructured interviews because it allows the interviewees to express their views freely, while also allowing the interviewer some control over the interview. That is to say, the interviewer can carefully design some questions prior to the interview so as to help elicit the interviewee's ideas and opinions on the interview topic. Such predetermined questions will not only enable the researchers to elicit comparable data across interviewees but will also probe for more expansion and elaboration from the interviewees' responses in order to gain more insightful data.



The sampling technique for recruiting potential interviewees was the purposive sampling. The participants in the experimental group whose reflective journals yielded interesting insights of their experiences, both positive and negative, on the multimodal tasks were selected to join the interview sessions and were asked for their consent to audiotape the interview.

The duration for each interview session took approximately 20-25 minutes. The interview was conducted on a one-on-one discussion basis. In order to eliminate any language problems that may have affected comprehension, the participants were interviewed in their native language, Thai.

#### **3.4.5.1 Development of the Semi-structured Interview Questions**

Twelve open-ended questions were developed as a guideline to the semi-structured interviews. The questions were adjusted from the previous studies of similar research topics and interests, such as those of Tamrackitkun (2010), Srisirasasipon (2011), Sukvijit Barr (2015), and Khonamri & Karimabadi (2015), to suit the research objectives. Apart from the guiding questions, additional questions derived from each participant's reflective journals and those which occurred during the interview were also utilized in order to probe for clarification of unexpected answers or interesting turns.

**Table 3.5.** *Semi-structured Interview Questions*

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#### **List of Questions**

---

1. How did you feel when you first attended the course?

---

2. How do you feel after taking the course?

---

3. What do you think about the multimodal tasks?

---

4. How do you feel about your multimodal tasks?

---

5. Do you plan steps for completing the multimodal tasks?

---

6. Do you think the multimodal tasks help you develop an ability to read critically?  
How?

---

- 
7. What are the difficulties/ problems you encountered at the start / in the process of the multimodal tasks? And how did you solve these problems?
- 
8. What do you think about integrating multimodality into critical reading lessons?
- 
9. How do you use the combination of modes to work on the multimodal tasks?
- 
10. What is your favourite part of doing the multimodal task?
- 
11. In your opinion, describe the usefulness/ and challenges of integrating multimodality into critical reading lessons.
- 
12. Is there any suggestion on the integration of multimodality in critical reading lessons?
- 

#### 3.4.5.2 Validation of the Semi-structured Interview Questions

The IOC protocol was adopted to validate the content of the interview questions. Furthermore, the back-translation technique was also used to assure the accuracy and validity of semantic equivalency between English and Thai.

To conclude this section, Table 3.6 provides the summary of the data collection instruments used in this study.

**Table 3.6.** *The Summary of Data Collection Instruments*

Types	Instruments	Objectives	Expected Data
Quantitative	Critical reading test	To investigate the effects of multimodal tasks on enhancing critical reading ability	Scores of the critical reading test of the participants in the two
	(Pre-test)		

			groups <b>before the intervention</b>
	(Post-test)		Scores of the critical reading test of the participants in the experimental group and the control group <b>after the intervention</b>
	<b>Rubric for multimodal tasks</b>	To assess and evaluate the participants' performances on the multimodal tasks	Scores of the multimodal tasks of the participants in the experimental group <b>during the intervention</b>
<b>Qualitative</b>	<b>Students' reflective journals</b>	To obtain contextual factors of performing the multimodal tasks	Contextual data on the experiences of the participants on the multimodal tasks
	<b>Semi-structured interviews</b>	To obtain an in-depth understanding of the participants' perceptions towards the multimodal tasks and how	Data on values, opinions, beliefs, attitudes, and perspectives of the participants in the experimental group towards the multimodal tasks

---

multimodal tasks  
contribute to the  
development of  
critical reading  
ability

---

### 3.5 Data Collection Procedures

The data collection procedures took place over a period of the second semester of academic year of 2017 (January - May 2018). The procedures were divided into three sequential periods: the pre-intervention, the intervention, and the post-intervention, as illustrated in Figure 3.4.

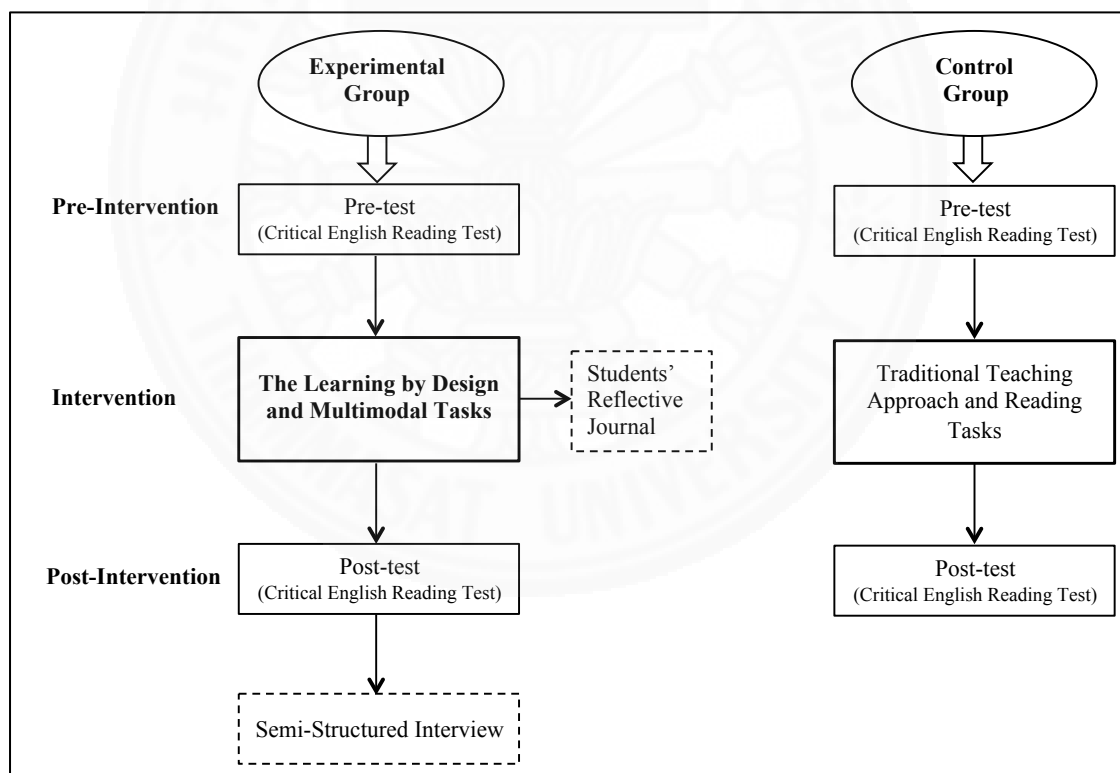


Figure 3.4. Data Collection Procedures

### **3.5.1 Pre-Intervention Phase**

At the beginning of the semester, a validated reading test taken from the university's in-house proficiency test was administered to the participants in the experimental and the control group in order to assure that they were equivalent in terms of their English reading proficiency.

In addition, before receiving the intervention, the participants in the two groups did the pre-test. The pre-test scores, which were the quantitative type, were used as a baseline data for comparison with the subsequently acquired test scores.

### **3.5.2 Intervention Phase**

The intervention took place in the second module of the course, which covered the 9<sup>th</sup>-14<sup>th</sup> weeks of the semester or around March to May 2018.

As mentioned earlier, the intervention of this study was the integration of multimodal tasks to the teaching of critical reading. The multimodal tasks in this study refer to a student's creation of a multimodal representation that conveys their inferences made from a reading passage. The participants in the experimental group were taught critical reading through the Learning by Design pedagogical framework and they were assigned the multimodal tasks. On the other hand, the participants in the control group did not receive any treatment. They were taught critical reading in the traditional approach and were assigned traditional reading tasks of the course.

During the intervention, the participants in the experimental group were also assigned to keep a journal in order to reflect upon their experiences after completing each learning period. Data from the reflective journals were the qualitative type.

### **3.5.3 Post-Intervention Phase**

Right after the intervention, the participants in the experimental group and the control group were assessed for their critical reading ability with the same critical reading test. Scores gained from the post-test were calculated and compared with the

pre-test scores in order to identify significant differences of critical reading ability between two groups. This provided an answer to the first research question.

Moreover, the scores of the traditional reading tasks and the scores of the multimodal tasks were also compared. The comparison of the participants' performances between the two types of tasks would additionally provide an interesting insight to the results of the test scores.

After the grades were announced, the semi-structured interviews were conducted. Data from the semi-structured interviews were combined with those from the students' reflective journals in order to answer the second research question.

The summary of the research procedures and data collected in each period is provided in Table 3.7.

**Table 3.7.** *The Summary of the Research Procedures and Data Collected*

<b>Research Procedures</b>	<b>Participants</b>		<b>Data Collected</b>
	<b>Exp. Group</b>	<b>Cont. Group</b>	
<b>Pre-Intervention</b>	Pre-test	Pre-test	Quantitative data on the pre-test scores of critical reading
	Students' reflective journals	-	Qualitative data on the participants' experiences on the multimodal tasks
<b>Intervention</b>	Multimodal task scores	Traditional task scores	Quantitative data on the scores of critical reading tasks
	Post-test	Post-test	Quantitative data on the post-test scores of critical reading
<b>Post-Intervention</b>	Semi-structured interviews	-	Qualitative data on the participants' perceptions towards the multimodal tasks

### **3.6 Data Analysis**

Having a combination of quantitative and qualitative data types, this study employed different measures of data analysis. The quantitative data were in the forms of numerical test scores, while the counterpart qualitative data were the extensive typed transcriptions of the students' reflective journals and semi-structured interviews.

As Creswell & Plano Clark (2007) suggested, the two types of data were analyzed separately and integrated in the data interpretation of the mixed-method research. The data analysis used in this study was thus divided into quantitative data analysis and qualitative data analysis, described below.

#### **3.6.1 The Analysis of the Quantitative Data**

The quantitative data in this study, comprising pre-test and post-test scores and critical reading task scores, were analyzed using descriptive and inferential statistic protocols.

##### **3.6.1.1 Pre-test and Post-test Scores**

The statistic comparison was adopted to identify significant differences between the test scores and the task scores of the participants in the two groups. Firstly, the scores were processed using the descriptive statistics to look for means (the measures of central tendency), and standard deviations (the measures of variability). After that, inferential statistical analysis was employed. Lastly, Independent Sample T-test (2-tailed) was used to indicate if the discrepancy between the two data sets was significantly different. Further, t-value and df-value were also included to calculate the effect size in order to help validate the results.

##### **3.6.1.2 Critical Reading Task Scores**

Adopting similar statistic protocols to the test scores, descriptive statistics to look for means (the measures of central tendency), and standard deviations (the measures of variability) was used. After that, inferential statistical

analysis was employed in order to indicate if the discrepancy between the two data sets was significantly different.

### **3.6.2 The Analysis of the Qualitative Data**

The qualitative data of this study; namely students' reflective journals and semi-structured interviews, were analyzed through a thematic coding. According to Nunan & Bailey (2009), qualitative data collection provides a large amount of rich textual data; therefore, the data reduction process is very much necessary in the data analysis method. This helps establish the efficacy and effectiveness in analyzing data related to the research questions. In this regard, this study employed the technique of meaning condensation in order to shorten the large quantity of texts into briefer statements for analysis.

#### **3.6.2.1 Students' Reflective Journals**

The thematic coding method was adopted in analyzing students' reflective journals. Braun and Clarke (2006) referred to the thematic coding as the way of analyzing transcribed data without any preexisting coding frames. The predetermined codes might not be generalizable and well applied to other research contexts, like this present study, because individuals are different in terms of their personal characteristics and learning preferences (Summers, 2008, p. 173). Based on this justification, this study used the thematic coding method to examine students' reflective journals in order to obtain the participants' experiences on the multimodal tasks.

The textual data from the journals were refined into a manageable level, then searched for patterns through keywords and repeated words, and categorized into themes. Suggested by Creswell (2013), the data were first reduced and grouped into small categories of similar information. Then, each category was assigned a label. The step after this was forming the theme by combining several related labels to a broad unit of information. The thematic coding and re-coding continued on an ongoing basis, each time from different perspectives, until patterns begin to emerge. These



themes served as the framework for analysis. Words or phrases which appeared to be similar were grouped within the same theme. Finally, the researcher reread the entire journals in order to check the salient themes coded. The original quotes from students' reflective journals were used as evidence to support these coding themes.

Moreover, member checking was also assigned for triangulation. After the analysis, the categories of coding themes were examined by the independent observers in order to ensure the consistency and creditability of the researcher's analysis.

### 3.6.2.2 Semi-structured Interviews

Using the same method as with the students' reflective journals, the recordings of the semi-structured interviews were analyzed through the thematic coding analysis.

The semi-structured interviews were first transcribed verbatim. Then, the transcriptions were analyzed, coded, and assigned themes. Member checking was also assigned to guarantee accuracy and creditability of the analysis.

Table 3.8 shows a summary of the data analysis in relation to the research questions of this study.

**Table 3.8.** *Summary of Data Analysis*

<b>Sources of Data</b>	<b>Exp. Group</b>	<b>Cont. Group</b>	<b>Analytic Methods</b>	<b>Research Questions</b>
Pre-test scores of critical reading	✓	✓	(1) Descriptive statistics: means and standard deviations	1. To which extent do the multimodal tasks enhance critical reading
Post-test scores of critical reading	✓	✓	(2) Inferential statistics:	ability of Thai EFL tertiary students?
Scores on critical	✓	✓	Independent	

reading tasks		Sample T-test (2-tailed)	
Data from the students' reflective journals	✓	Thematic coding	2. What are students' perceptions towards the multimodal tasks?
Data from the semi-structured interviews	✓		

### 3.7 Ethical Consideration

Ethical issues were carefully considered in order to maintain the integrity of the present study and its findings. As pointed out by Dörnyei (2011), the social research that concerns people's lives in the real setting should not ignore ethical issues involved in the process of conducting a study. For this study, several measures were utilized in order to ensure the research's ethics.

To begin with, a research consent form was submitted to the Department of Foreign Languages so as to formally request permission to conduct the study. Since the present study took place in the real English classroom at the university, the Department of Foreign Languages, responsible for all English courses, was informed of the objectives of the present study and provided with the research's theoretical and methodological guidelines, including data collection and teaching instruments.

On the participants site, they were informed of the study and that they could voluntarily participate and withdraw their participation if they wished at any stage of the research. The participants in the experimental group and the control group were asked to give a written consent form. One copy of the consent form was kept with them for their records whereas the other copy was with the teacher-researcher. In

addition, the participants' names were kept anonymous as pseudonyms were used in the report of the research findings.

For the interview sessions, permission was granted for audio recording and verbatim transcribing prior to the interview sessions. Additionally, the participants were promised full anonymity and the use of pseudonyms. Not only that, they were also assured that the results of the interviews were confidential.

Another point of ethical concern was the power relationship between the researcher and the participants. Since the researcher took the role of a teacher in both groups in the study, the participants could have a misconception that their participation and responses in the data collection procedure would impact their performance evaluation. The participants were informed, both verbally and written in the consent form, that the study would have no impact on their grades and evaluation in the course.

The other ethical point that is considered common in a classroom research is the unfair treatment in terms of the exposure to a different type of instruction. In this study, the participants in both groups learnt the same course contents prescribed by the course syllabus. Although the approaches used to teach critical reading to the participants in the two groups were different, other standards remained the same. As a matter of fact, the teachers had the academic freedom to choose the instructional approaches that they believed appropriate to foster the students' learning. Thus, the intervention in this study was justified.

### **3.8 Conclusion**

The third chapter describes the research methodology and justifies the use of research instruments. The chapter also presents the data collection method and the overview of data analysis. Since this study employed the mixed-methods embedded experimental research design, data were a combination of quantitative and qualitative types. Both descriptive and inferential statistics were used to analyze quantitative data. The data reduction process was conducted through thematic coding method in

order to analyze qualitative data. Finally, issues regarding the ethical concerns were also addressed.



## **CHAPTER 4**

### **FINDINGS**

This chapter discusses findings from data analysis. The data were collected from the multiple instruments employed during and after the intervention. Since the design of this research study is mixed-methods, the data were obtained with both quantitative and qualitative instruments. The purpose of collecting and interpreting data from multiple sources was for the triangulation of data to ensure the validity of the research findings.

The findings shed lights on the two research questions.

1. To what extent do multimodal tasks enhance critical reading ability of Thai EFL university students?
2. What are students' perceptions towards multimodal tasks?

Starting with research question 1, the quantitative data gathered from the pre-intervention and post-intervention tests provided information on the extent to which multimodal tasks in this research study affected students' critical reading ability through descriptive and inferential statistical analysis. Then, to answer research question 2, the qualitative inquiries such as the students' reflective journals and semi-structured interviews were analyzed to provide a clearer picture of how the integration of multimodal tasks could affect critical reading ability of the students.

#### **4.1 Effects on Critical Reading Ability**

This part answers the first research question, "To what extent do multimodal tasks enhance critical reading ability of Thai EFL university students?" The hypotheses were also set to answer this research question. They are

H<sub>0</sub>: The use of multimodal tasks cannot enhance students' critical reading ability.

H<sub>1</sub>: The use of multimodal tasks can enhance students' critical reading ability.

To provide empirical evidence on the effects of the intervention, the pre-test and post-test were used as the main source of data. Furthermore, scores from the two critical reading tasks were included in order to cross-validate and triangulate results from the pre- and post-test.

The pre-test and post-test were designed as an indicator of the effects of integrating multimodal tasks into critical reading lessons. The test domain was on the ability to draw inferences and logical conclusions, which are aspects related to the critical reading ability taught in the course. The pre-test was administered before the intervention and the post-test was administered after the intervention. The total test time was 40 minutes. In terms of grading, the tests were marked by the teacher-researcher and a teacher who has extensive experience in teaching the Fundamental English Reading course. The two raters worked independently without the influences of each other.

After the pre-test was administered, an answer key was photocopied and given to the raters. Table 4.1 shows the descriptive statistics of the mean score and standard deviation of each rater. The full score of the pre-test was 30 marks. For the control group, the mean score of Rater 1 (R1) was 16.87 while the mean score of Rater 2 (R2) was 16.64. The standard deviation of Rater 1's scoring was 6.36 and the standard deviation of Rater 2's scoring was 6.24. For the experimental group, the mean score of Rater 1 (R1) was 15.80 while the mean score of Rater 2 (R2) was 15.78. The standard deviation of Rater 1's scoring was 5.06 and the standard deviation of Rater 2's scoring was 4.94.

Table 4.1. *Pre-Test Scoring*

	<b>Raters</b>	<b>n</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Control Group</b>	R1	28	16.87	6.36
	R2	28	16.64	6.24
<b>Experimental Group</b>	R1	35	15.80	5.06
	R2	35	15.78	4.94

To ensure the consistency of the scoring between the two raters, Pearson Correlation was used to identify the inter-rater reliability. The results were described in Table 4.2.

Table 4.2. *Inter-Rater Reliability of the Pre-Test*

<b>Control Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.991**
	Sig. (2-tailed)		.000
	n	28	28
<b>Rater 2</b>	Pearson Correlation	.991**	1
	Sig. (2-tailed)	.000	
	n	28	28
<b>Experimental Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.994**
	Sig. (2-tailed)		.000
	n	35	35
<b>Rater 2</b>	Pearson Correlation	.994**	1
	Sig. (2-tailed)	.000	
	n	35	35

\*\* . Correlation is significant at the 0.01 level (2-tailed)

From Table 4.2, the results show a positive high correlation between the scorings of Rater 1 and Rater 2 on the pre-test of both the control group and the experimental group. The reliability coefficient ( $r$ ) of the control group was .991 and the reliability coefficient ( $r$ ) of the experimental group was .994 ( $p < 0.01$ ).

In the same manner, the administration of the post-test was similar to that of the pre-test. After the two raters marked the test papers, the statistic protocols were followed to reassure the consistency between Rater 1 and Rater 2. The full marks of the post-test were also 30.

Table 4.3 describes the descriptive statistics in terms of the mean score and standard deviation of each rater's scoring of the post-test.

Table 4.3. *Post-Test Scoring*

	<b>Rater</b>	<b>n</b>	<b>Mean</b>	<b>Std. Deviation</b>
<b>Control Group</b>	R1	28	19.67	6.72
	R2	28	19.50	6.56
<b>Experimental Group</b>	R1	35	22.77	4.66
	R2	35	22.37	4.52

For the control group's post-test, the mean score of Rater 1 (R1) was 19.67 while the mean score of Rater 2 (R2) was 19.50. The standard deviation of Rater 1's scoring was 6.72 and the standard deviation of Rater 2's scoring was 6.56. For the experimental group, the mean score of Rater 1 (R1) was 22.77 while the mean score of Rater 2 (R2) was 22.37. The standard deviation of Rater 1's scoring was 4.66 and the standard deviation of Rater 2's scoring was 4.52.

In a similar manner to the pre-test scorings, the inter-rater reliability was also analyzed using Pearson Correlation to assure that the scorings of the post-test between Rater 1 and Rater 2 were consistent.



Table 4.4. *Inter-Rater Reliability of the Post-Test*

<b>Control Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.998**
	Sig. (2-tailed)		.000
	n	28	28
<b>Rater 2</b>	Pearson Correlation	.998**	1
	Sig. (2-tailed)	.000	
	n	28	28
<b>Experimental Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.991**
	Sig. (2-tailed)		.000
	n	35	35
<b>Rater 2</b>	Pearson Correlation	.991**	1
	Sig. (2-tailed)	.000	
	n	35	35

\*\* . Correlation is significant at the 0.01 level (2-tailed)

From Table 4.4, the analysis showed that there was a positive high correlation in Rater 1 and Rater 2's scorings on the post-test of both the control group and the experimental group. The reliability coefficient (r) of the control group was .998 and the reliability coefficient (r) of the experimental group was .991 ( $p < 0.01$ ).

The next step was to analyze the pre-test scores of the participants in the control group and the experimental group. The objective was to measure the similarity or dissimilarity of the critical reading ability of the participants from the two groups from the outset of the intervention.

#### 4.1.1 Before and After the Intervention

##### 4.1.1.1 Pre-Test Scores

The pre-test scores of the participants in the control and experimental group were analyzed using the SPSS programme to find the descriptive and inferential statistics. The Independent Sample t-Test results revealed that the participants in the two groups were roughly equivalent in terms of their critical reading ability level before receiving the intervention.

Table 4.5. *The Comparison of Pre-Test Scores*

Group	Independent Sample t-Test				t	Sig. (2-tailed)
	n	Mean ( $\bar{X}$ )	SD	SE		
Control	28	16.76	6.290	1.188	.680	.499
Experimental	35	15.80	4.997	.844		

\*p < .05

From Table 4.5, the mean scores ( $\bar{X}$ ) of the pre-test between the participants in the control group and the experimental group were 16.76 and 15.80 respectively (the full mark was 30). The mean scores of the two groups were compared using the Independent Sample t-Test. The result indicated that there was no significant difference between the two groups at 0.05 level (sig.= .499). This suggested that the critical reading ability of the participants in the control and experimental groups were roughly at the same level before receiving the intervention.

After that, the post-test scores of the participants in the control group and the experimental group were also statistically analyzed. The objective was to compare the critical reading test scores between the participants in the two groups after the intervention phase.

##### 4.1.1.2 Post-Test Scores

In the same manner as the pre-test, the post-test scores of the participants in the two groups were analyzed using the Independent Sample t-Test.

The results showed that the participants in the experimental group outperformed those in the control group in the critical reading post-test at a significant level.

Table 4.6. *The Comparison of Post-Test Scores*

Independent Sample t-Test						
Group	<i>n</i>	Mean ( $\bar{X}$ )	SD	SE	<i>t</i>	Sig. (2-tailed)
Control	28	19.59	6.645	1.255	-1.476	.034
Experimental	35	22.57	4.584	0.775		

\* $p < .05$

As described in Table 4.6, the mean score of the control group was 19.59 and the mean score of the experimental group was higher at 22.57. The result of the inferential statistical analysis suggested that the difference between the post-test scores of two groups was significant at 0.05 level (sig.= .034). This implied that the participants in the experimental group outperformed the control group after receiving the intervention.

From the comparison between the post-test scores of the control group and the experimental group, the results indicated that the multimodal tasks had a significant effectiveness on enhancing critical reading ability of the Thai EFL university students. Despite that, a comparison between the pre-test and post-test scores within each group was also needed in order to provide another concrete evidence that supported the effectiveness of the intervention.

#### 4.1.1.3 Pre- and Post- Tests Scores Comparison

To measure the progress of the participants before and after the intervention in each group, Paired Samples t-Test was adopted.

Table 4.7. *The Comparison of Pre-test and Post-test Scores*

<b>Paired Sample t-Test</b>									
<b>Control Group</b>					<b>Experimental Group</b>				
<i>n</i> = 28					<i>n</i> = 35				
	<b>Mean</b>	<b>SD</b>	<b>t</b>	<b>Sig.</b>		<b>Mean</b>	<b>SD</b>	<b>t</b>	<b>Sig.</b>
	<b>(<math>\bar{X}</math>)</b>					<b>(<math>\bar{X}</math>)</b>			
Pre-test	16.76	6.290			Pre-test	15.80	4.997		
Post-test	19.59	6.645	-4.67	.000	Post-test	22.57	4.584	-10.09	.000
Gain Scores = 2.83					Gain Scores = 6.77				

\* $p < .05$

As presented in Table 4.7, the participants in both the control group and the experimental group had significant improvement in their critical reading ability at 0.05 level (sig.= .000). However, the examination of the standard deviation (SD) revealed larger differences among the participants in the control group and such variations among the participants grew larger after the experiment. This means that the post-test scores of each participant in the control group were more deviant from the means, which indicated the inconsistency of the range of test scores within the control group.

On the contrary, the standard deviation (SD) of the experimental group was not only smaller but also decreased after the intervention. This means that the participants in the experimental group had less variation in terms of their test scores, which displayed the consistency of the range of test scores within the experimental group.

A comparison on gain scores also revealed a greater improvement on the side of the experimental group. From pre-test to post-test, the gain score of the experimental group was 6.77, while that of the control group was 2.83. When taking the fall in the score dispersion within the experimental group into account, it was obvious that the participants in the experimental group improved more consistently.

Apart from examining the effects of the intervention, there was also a need to identify the magnitude of the intervention. Therefore, the next step was to measure the effect size.

#### 4.1.1.4 Effect Size

An effect size is used to describe the strength of a phenomenon. According to Cohen (1988), not every significant result refers to an effect with a high impact or describes a phenomenon that is really perceivable in everyday life. In the research context, the term “statistical significance” only means that a result is not the cause of random variations within the data but is caused by the independent variable or the intervention.

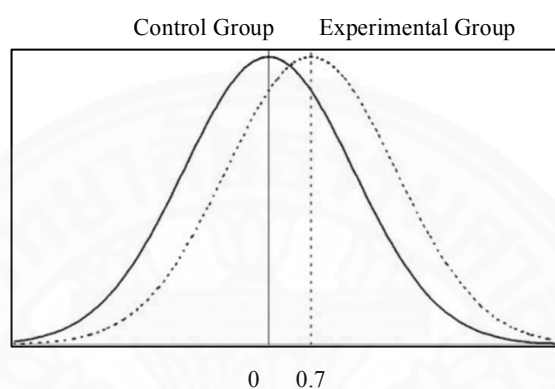
In an intervention study that compares the development of at least two groups (in general an experimental group and a control group), there are two effect size calculations that are widely used by researchers. The first one is Klauer (2001) and the second one is Morris (2008). Both of them measure for mean differences of groups with unequal sample size within a pre-post-control. Usually, they yield similar results.

This study adopted an effect size calculation method from both Morris (2008) and Klauer (2001). And the effect size ( $d$ ) obtained was .682 and .679 respectively, as displayed in Figure 4.1.

	Intervention Group		Control Group	
	Pre	Post	Pre	Post
<b>Mean</b>	15.80	22.57	16.76	19.59
<b>Standard Deviation</b>	6.290	6.645	4.997	4.584
<b>Sample Size (N)</b>	35	35	28	28
<b>Effect Size <math>d_{ppc2}</math> sensu Morris (2008)</b>	0.682			
<b>Effect Size <math>d_{Korr}</math> sensu Klauer (2001)</b>	0.679			

**Figure 4.1.** Effect Size Results

Based on Cohen (1988), regarding the interpretation of effect size calculations, the approximate effect size of 0.70 implies the intermediate magnitude of the intervention. It also means that the test scores of the experimental group was located at approximately 0.70 standard deviation above those of the control group (see Figure 4.2). The results of the effect size suggested desired effects and a moderate practical significance of the intervention.



**Figure 4.2.** Score Distribution of the Two Groups

To conclude this part, the statistical findings suggested that the multimodal tasks, the intervention of this study, had an effectiveness on enhancing critical reading ability of Thai EFL university students at a significant level. The effects of the multimodal tasks were moderate. Hence, the null hypothesis ( $H_0$ ) - The use of multimodal tasks cannot enhance students' critical reading ability - is rejected and the alternative hypothesis ( $H_1$ ) - The use of multimodal tasks can enhance students' critical reading ability - is accepted.

#### **4.1.2 During the Intervention**

##### **4.1.2.1 Critical Reading Task Scores**

In line with the statistical comparisons between the pre- and post- test scores of the participants in the two groups, the comparison of the participants' critical reading performance in a classroom task is also worth discussing since it yields some insights of the effects multimodal tasks had on the participants' development of critical reading during the intervention phase.

During the experiment, there were two critical reading tasks; namely, critical reading task I and critical reading task II, which were assigned to the participants in both the control group and the experimental group. The critical reading task I was assigned in week 13 and the other task was assigned in week 17. Both tasks required the participants to convey their critical reading ideas in response to the critical reading questions posed to them. However, the difference in the critical reading tasks assigned between the control group and the experimental group was the means of communication forms. The participants in the control group conventionally wrote their critical reading ideas to answer the questions, while the participants in the experimental group conveyed their critical reading ideas using different forms of modality or communication modes.

Since the critical reading tasks were assigned during the experiment, the capture of the participants' performance on the tasks would facilitate the triangulation on the effectiveness of the intervention. This also could increase the validity of the findings.

To do so, the scores of the two critical reading tasks were taken into consideration. In the same way as the pre-test and post-test, the two critical reading tasks were marked by the teacher-researcher and another teacher who has extensive experience in teaching the Fundamental English Reading course. The two raters worked independently without the influences of each other.

Due to the difference between the two tasks in terms of their outputs, there were two rubrics. Each was designated to its corresponding group. The experts had already validated that the two rubrics were equivalent in terms of the constructs. The rubrics were photocopied and given to the raters. Table 4.8 shows the result of inter-rater reliability of the critical reading task I.

Table 4.8. *Inter-Rater Reliability of the Critical Reading Task I*

<b>Control Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.859**
	Sig. (2-tailed)		.000
	n	28	28
<b>Rater 2</b>	Pearson Correlation	.859**	1
	Sig. (2-tailed)	.000	
	n	28	28
<b>Experimental Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.901**
	Sig. (2-tailed)		.000
	n	35	35
<b>Rater 2</b>	Pearson Correlation	.901**	1
	Sig. (2-tailed)	.000	
	n	35	35

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Using Pearson Correlation, the results suggested that the scoring of Rater 1 and Rater 2 in the critical reading task I were consistent. For both the control group and the experimental group, the inter-rater reliability was high with positive correlation at  $p < 0.01$  ( $r = .859$  and  $.901$  respectively).

In the same manner, the inter-rater reliability was also analyzed in the grading of critical reading task II using Pearson Correlation.



Table 4.9. *Inter-Rater Reliability of the Critical Reading Task II*

<b>Control Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.793**
	Sig. (2-tailed)		.000
	n	28	28
<b>Rater 2</b>	Pearson Correlation	.793**	1
	Sig. (2-tailed)	.000	
	n	28	28
<b>Experimental Group</b>		<b>Rater 1</b>	<b>Rater 2</b>
<b>Rater 1</b>	Pearson Correlation	1	.905**
	Sig. (2-tailed)		.000
	n	35	35
<b>Rater 2</b>	Pearson Correlation	.905**	1
	Sig. (2-tailed)	.000	
	n	35	35

\*\* . Correlation is significant at the 0.01 level (2-tailed)

From Table 4.9, the results showed a high agreement between the scoring of Rater 1 and Rater 2 in the critical reading task II. The reliability value ( $r$ ) of the control group was .793 and that of the experimental group was .905 ( $p < 0.01$ ).

The comparison of the scores between the two groups revealed that the participants in the experimental group significantly outperformed those in the control group in both critical reading task I and critical reading task II, as displayed in Table 4.10.

Table 4.10. *Critical Reading Task I and II Scores*

<b>Critical Reading Task I</b>						
<b>Group</b>	<b><i>n</i></b>	<b>Mean (<math>\bar{X}</math>)</b>	<b>SD</b>	<b>SE</b>	<b><i>t</i></b>	<b>Sig. (2-tailed)</b>
Control	28	11.89	3.227	0.609	-2.563	.013
Experimental	35	14.16	4.086	0.690		
<b>Critical Reading Task II</b>						
<b>Group</b>	<b><i>n</i></b>	<b>Mean (<math>\bar{X}</math>)</b>	<b>SD</b>	<b>SE</b>	<b><i>t</i></b>	<b>Sig. (2-tailed)</b>
Control	28	11.73	2.780	0.525	-2.712	.009
Experimental	35	13.96	3.167	0.535		

\* $p < .05$

From Table 4.10, it could be seen that the mean scores of the participants in the experimental group were higher at 0.05 level ( $p < .05$ ) for both critical reading tasks. Out of the full 20 marks the participants in the experimental group generally received 14.16 in the critical reading task I and 13.96 in the critical reading task II. On the contrary, the participants in the control group generally got 11.89 out of 20 in the critical reading task I and 11.73 in the critical reading task II.

In addition, a close look at the details revealed that the participants in the experimental group mainly received higher scores in each area of the tasks, as shown in Table 4.11.

Table 4.11. *Scores in Each Area of the Tasks*

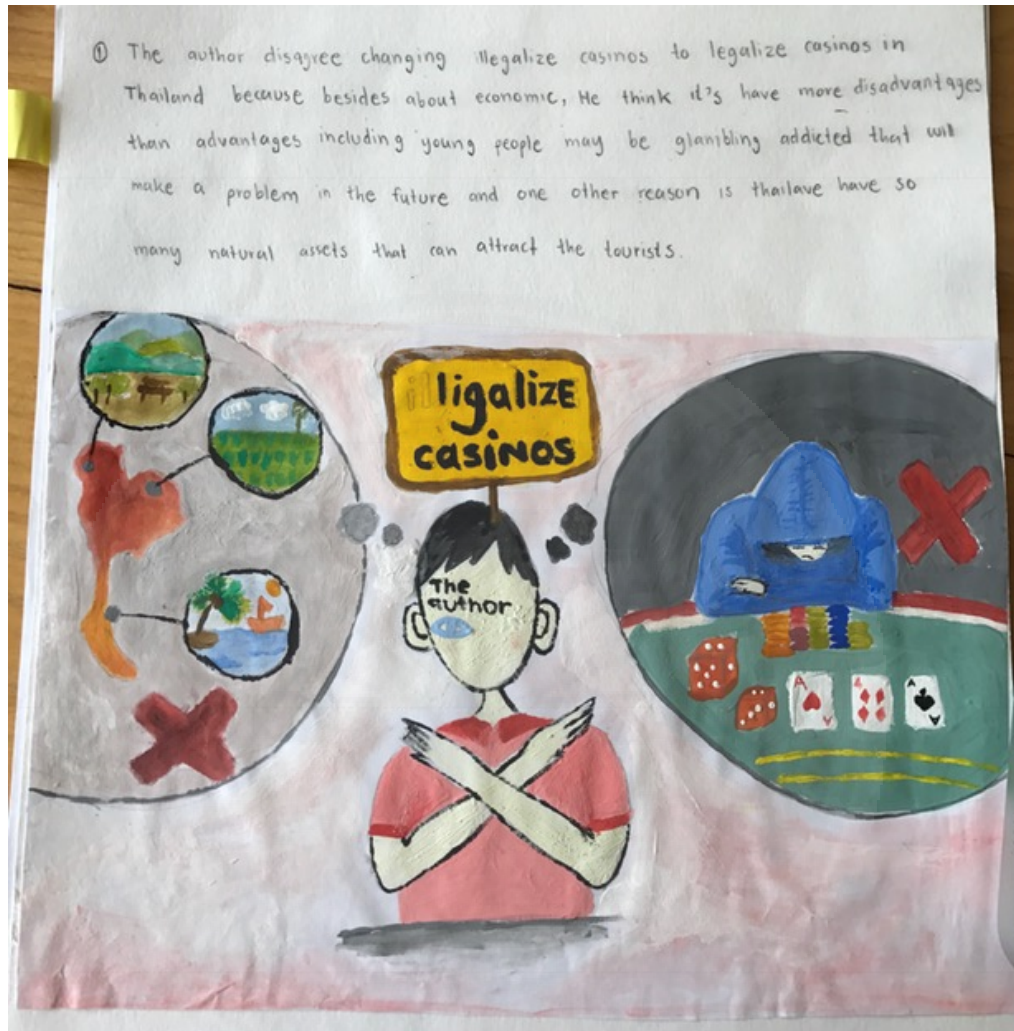
Area (4 marks each)	Critical Reading Task I		Critical Reading Task II	
	Control (n = 28)	Experimental (n = 35)	Control (n = 28)	Experimental (n = 35)
Inferences	2.44	2.67	2.43	2.76
Evidence of Thoughts	2.07	2.45	2.15	2.66
Delivery	2.23	3.73	2.34	3.98
Mechanics	2.53	2.51	2.48	2.87
Knowledge Application	2.49	2.80	2.46	2.69
Total Scores (20)	= 11.89	= 14.16	= 11.73	= 13.96

A close examination of the multimodal tasks scores provided evidence that confirmed the positive effect on the integration of multimodality in the teaching of critical reading. This simply means that the participants in the experimental group developed their critical reading during the course of the intervention as they could make inferences and could show evidence of their thoughts as well as could engage with the reading content better than the participants in the control group.

To cite an example, in the critical reading task I, the reading passage was an editorial discussing an idea to legalize casinos in Thailand. One of the critical reading questions required the participants to make an inference and draw a conclusion from what the author may be implying in the passage if casinos were legalized in Thailand.

After being exposed to multimodality, the participants in the experimental group deliberated how casinos would have an effect on Thai society in a critical manner better than the participants in the control group. Their inferences and conclusions were clearly made based on the information given in the passage. They were also able to clearly draw concrete pictures from their understandings using

multimodal modes such as written, visual, gestural, and spatial to convey their critical reading stances in an interesting manner.

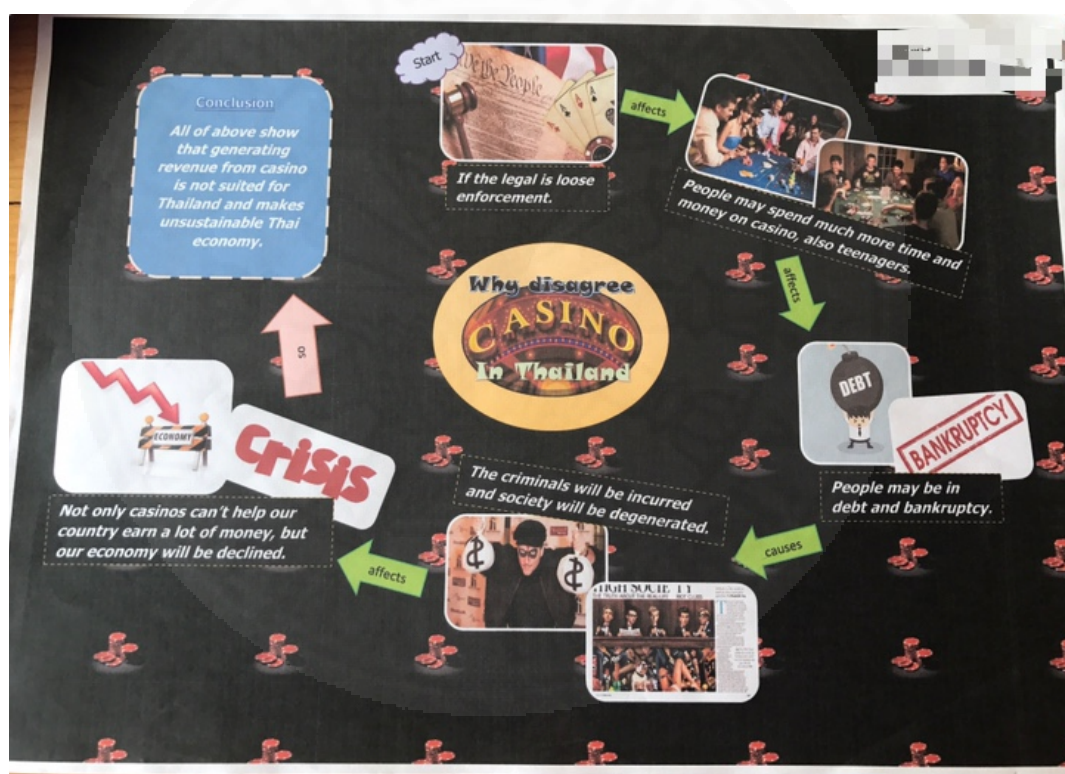


**Figure 4.3.** Example 1 of Multimodal Task I

From Figure 4.3, the participant (P8) showed a great success in using information given in the passage to make logical inferences about the author's standpoint and attitudes towards legalizing casinos in Thailand. Based on the sentence "... *But my question is whether the majority of us are equipped with such financial literacy.*" given in the passage, the use of multimodal modes gave a clear picture that the participant inferred that Thai people would go into debt if Thailand had casinos. It could be seen that the participant thoroughly considered including the gesture and

type of cloth that best represented the characteristics of a person with gambling addiction.

Moreover, from the sentence *“I think Thailand has much more potential to further develop its economy in a sustainable manner.”* in the passage, the participant showed that s/he could apply knowledge from the real world to the reading passage. Since it is a known fact that there are many natural assets in Thailand, the participant, thus, transferred this knowledge and was able to draw the conclusion that tourism could be an effective means for the country to develop its economy in a sustainable way through the pictures of mountains, seas, and an idyllic countryside landscape.

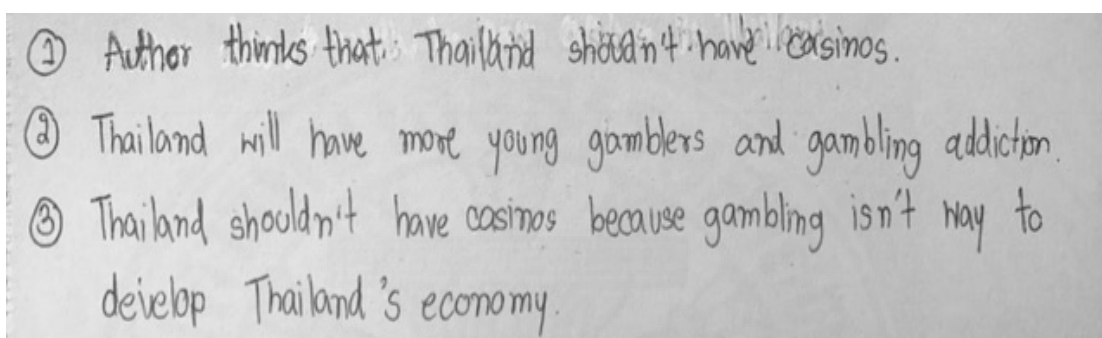


**Figure 4.4.** Example 2 of Multimodal Task I

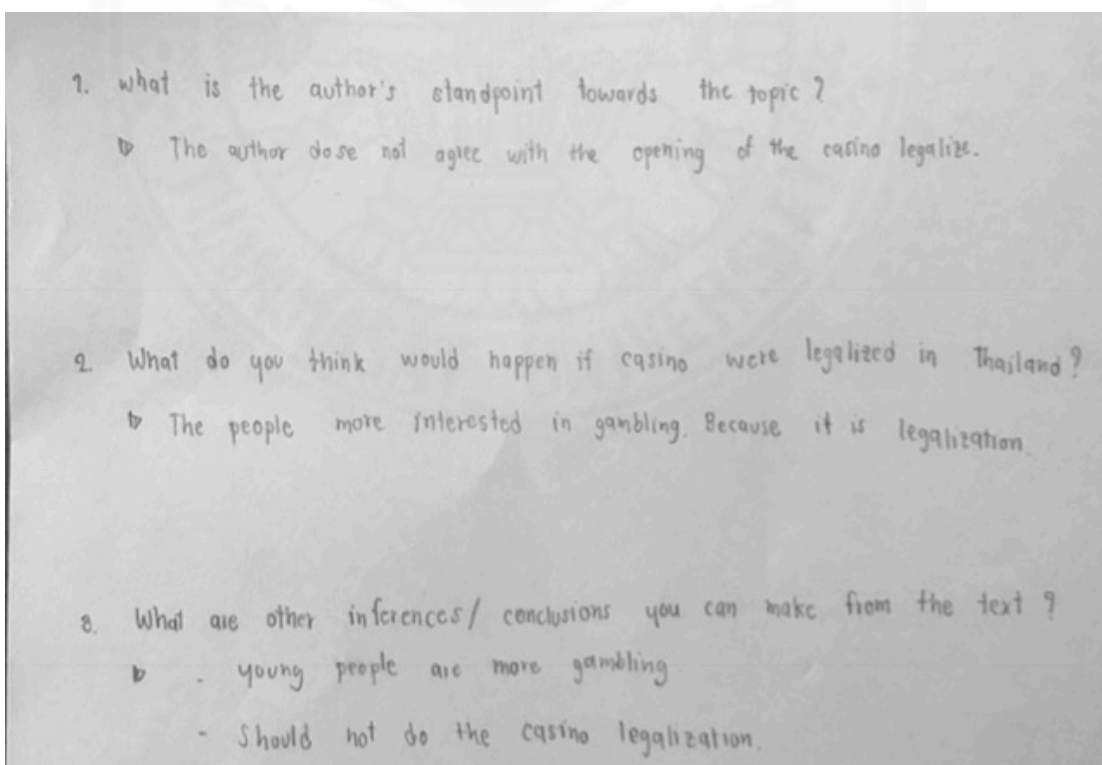
From Figure 4.4, the participant (P3) also showed impressive success in using information given in the passage to make logical inferences about the author’s standpoint towards legalizing casinos in Thailand. Based on the author’s statement on the financial literacy of Thai people *“... But my question is whether the majority of us*

are equipped with such financial literacy.”, the participant applied knowledge from the real world to infer that Thai society would be full of criminals, thieves, and personal financial crises.

In contrast to the experimental group, the participants from the control group seemed to be less able to demonstrate their critical reading stances. Their inferences were relatively vague and generally showed little connections with the passage. Also, their inferences did not reflect originality of ideas (See Figures 4.5 and 4.6).



**Figure 4.5.** Example 1 of Traditional Task I



**Figure 4.6.** Example 2 of Traditional Task I

For the critical reading task II, the reading passage discussed a narrative story of a boy named Jerome who had moved to a new neighborhood with his family and wrote a letter to his grandmother to tell a story about it. One question required the participants to make inferences and draw conclusions about Jerome's new house.

The second multimodal task showed great evidence that the participants in the experimental group had greater progress in terms of their critical reading ability than the control group. They generally showed greater success in using the information given in the passage to make inferences and draw conclusions about the house. After being involved in the intervention for almost nine weeks, the experimental group was also better able to draw some more concrete pictures from their understandings of what Jerome's new house should look like. Using a combination of written, visual, spatial, aural, and gestural forms to convey the ideas, they included some descriptive features related to colour, material, size, and landscape to the answers (See Figures 4.7 and 4.8)

*“I think Jerome's new house is located in a small village far away from the city because he told his grandmother that there was no store or shop near his house and it was difficult to get there. There must be many trees around there since his family can build their own furniture. Moreover, his new house may be made of wood.” [P7]*



**Figure 4.7.** Example 1 of Multimodal Task II

*“Their new house is by the river in the rural area. Their house and furniture are made of wood. Around the house, I think there must be many big pine trees.” [P8]*



**Figure 4.8.** Example 2 of Multimodal Task II

Interestingly, none of these descriptive attributes discussed above were found in the control group (see Figure 4.9 and 4.10).



- 1.) What do you think is the lesson or theme that the writer wants you to understand from this story  
 → Settlement in the countryside
- 2.) What can you infer about the setting of the story  
 → Setting in the small town, you have to do a lot of thing by yourself.
- 3.) What can you infer about Jerome?  
 → He's about 10 years old and he's hard worker.
- 4.) What can you infer about his family/about his parents.  
 → His father is carpenter because he can build the house and furniture by himself.

**Figure 4.9.** Example 1 of Traditional Task II

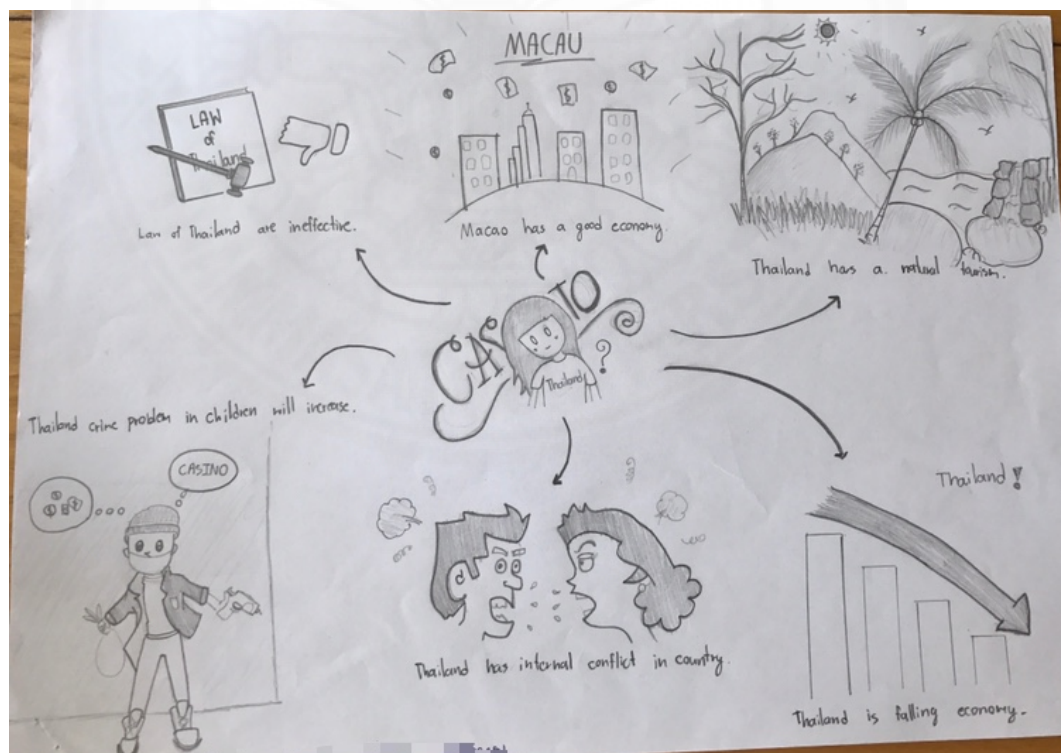
1. What do think is the lesson or theme that the writer wants you to understand from this story  
 ▶ Jerome and his family has moved to the new settlement and his family had a new baby.
2. what can you infer about the setting of this story?  
 ▶ It is small town on the island.
3. What can you infer about Jerome?  
 ▶ Jerome is a primary student. He is responsible and friendly person. He really love his brother. He is very kind and patient.
4. What can you infer about his family / about his parents?  
 ▶ His parents are very long sighted and hard-working people. They are really hopefull.

**Figure 4.10.** Example 2 of Traditional Task II

In terms of delivering on ideas and thoughts, the participants in the experimental group outperformed those in the control group in the two critical reading tasks. They presented their critical reading stances more effectively.

It could be seen that the integration of multimodal modes helped enhance clarity and comprehensibility in communicating the ideas and thoughts. The works of the experimental group provided strong evidence of their clear conception of multimodality and their acquaintance with it. They were able to utilize and integrate various modes such as written, visual, and spatial ones in the tasks well. Unlike the control group, the participants in the experimental group showed a great deal of originality, inventiveness, and creativity in their critical reading tasks.

For instance, in the critical reading tasks I and II, the participants in the experimental group used the combination of multimodal modes and designed the page layout to convey their critical reading stances towards the author's standpoint and implications of the topic impressively and effectively. They demonstrated a tight integration of written, visual, gesture, and spatial modes in an expository manner (see Figures below).



**Figure 4.11.** Example 3 of Multimodal Task I



Figure 4.12. Example 4 of Multimodal Task I

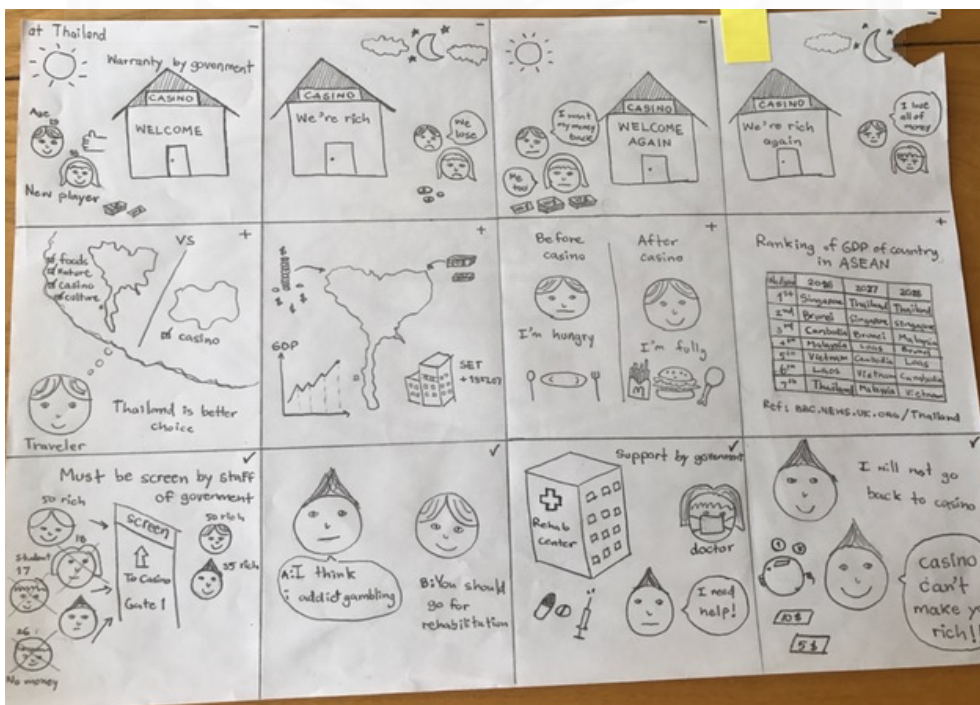


Figure 4.13. Example 5 of Multimodal Task I

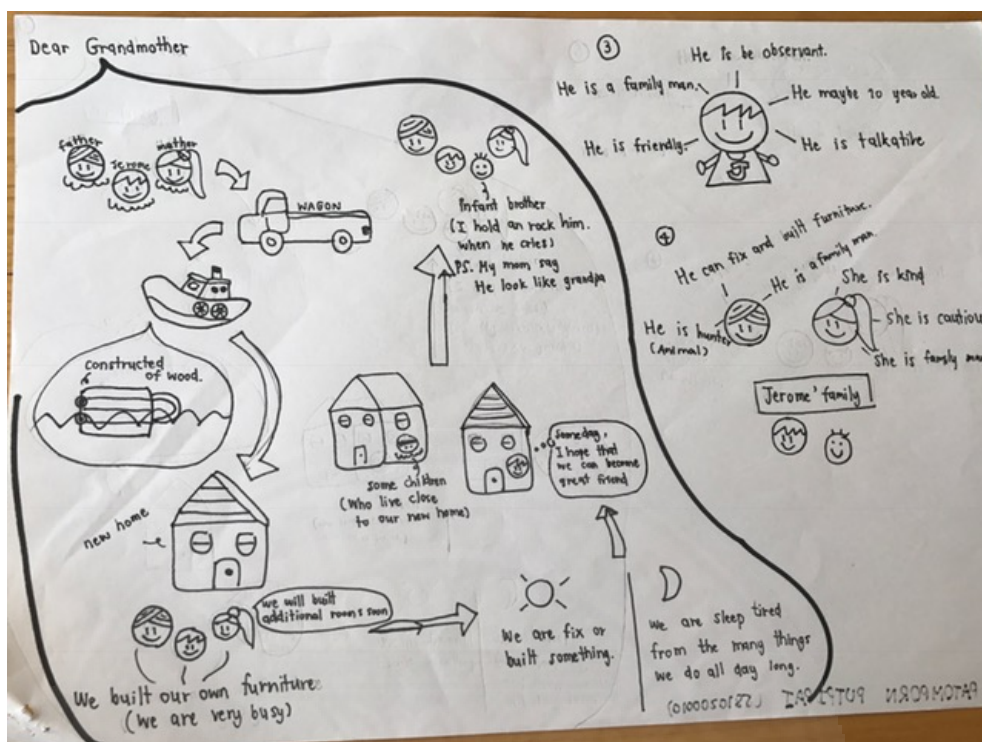


Figure 4.14. Example 3 of Multimodal Task II

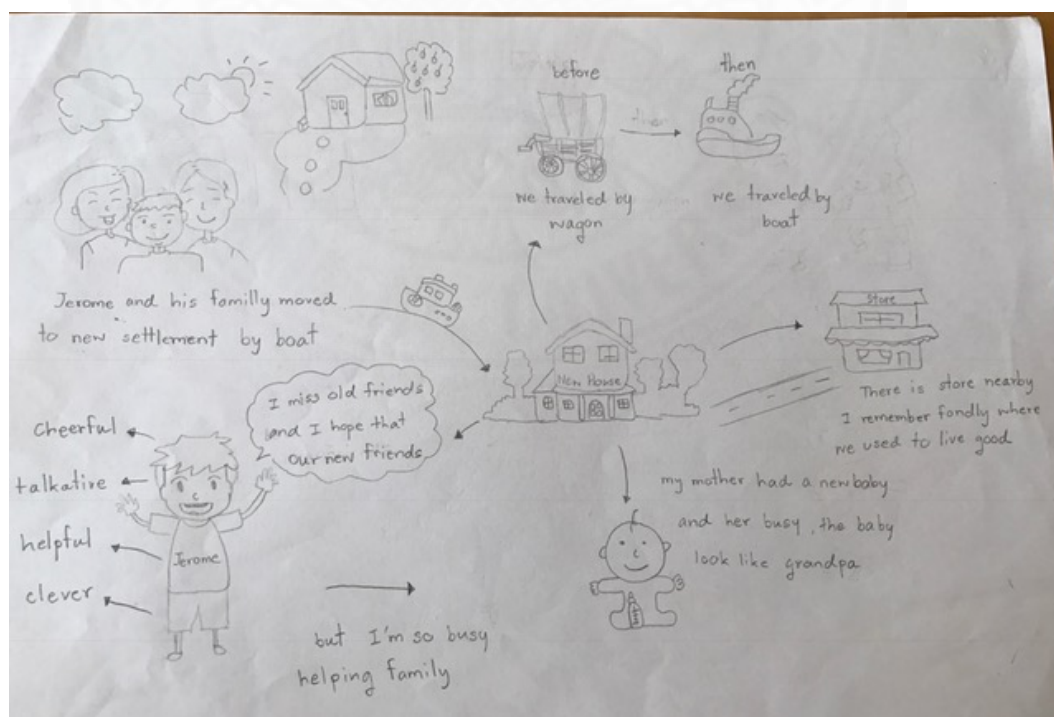


Figure 4.15. Example 4 of Multimodal Task II

In contrast to the experimental group, the participants in the control group struggled to present their critical reading ideas through words for the most part. Therefore, their intended messages were hardly achieved (See Figures below).

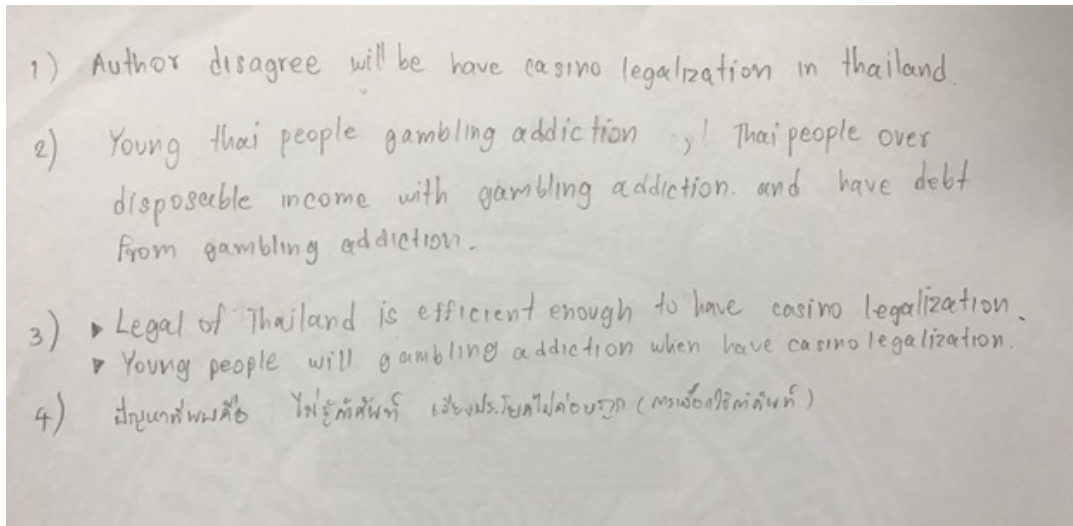


Figure 4.16. Example 3 of Traditional Task I

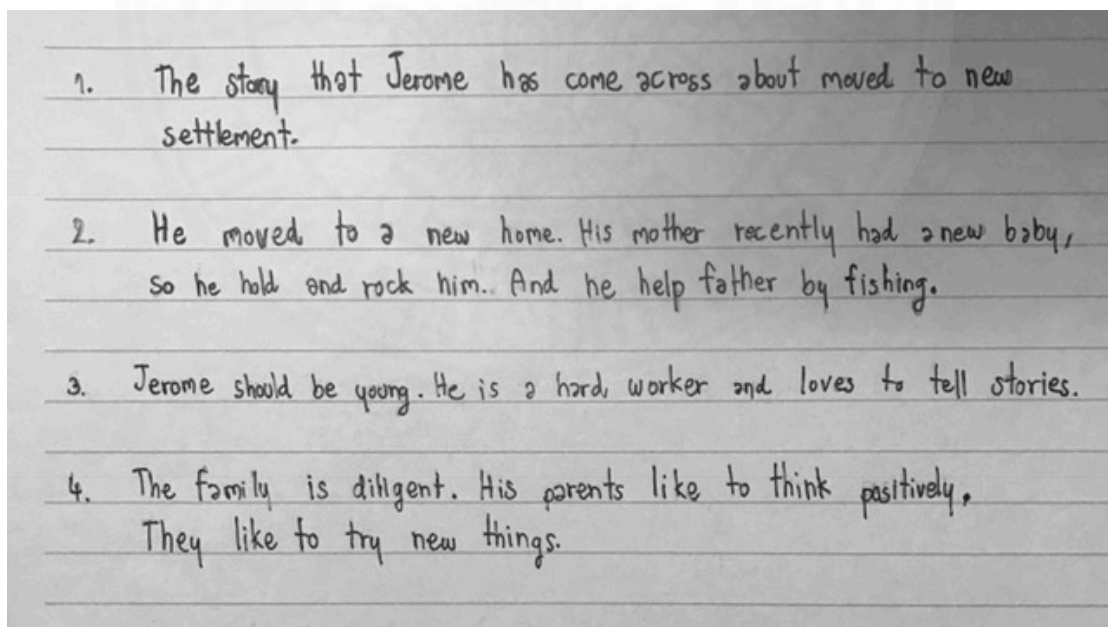
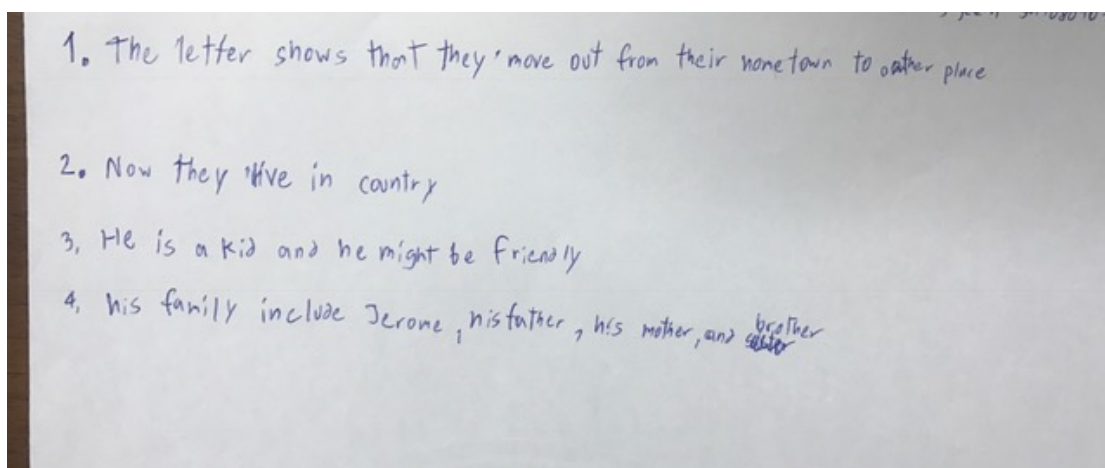


Figure 4.17. Example 3 of Traditional Task II



**Figure 4.18.** Example 4 of Traditional Task II

To sum up the quantitative part, the results from the information obtained from the descriptive and inferential statistic analysis of the pre-test and post-test scores as well as the task I and task II scores suggested that the multimodal tasks had significant positive effects on enhancing the critical reading ability of the students.

The result of the comparison of the pre- and post- test scores between the groups suggests that the participants in the two groups both improved significantly in their critical reading ability. However, the comparison of the gain scores and the post-test scores revealed that the participants in the experimental group showed greater development at a significant level.

Moreover, the examination of the magnitude of the intervention of this study showed that it had a moderate effect size ( $d = .7$ ). This makes it possible to conclude that the multimodal tasks could enhance critical reading ability of Thai EFL students. Therefore, the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_1$ ) is accepted since there was a meaningful relationship between two measured phenomena or between the intervention (the multimodal tasks) and the critical reading ability of the students.

## 4.2 Effects on Perceptions

This section answers the second research question, “What are students’ perceptions towards multimodal tasks?” Data were collected through the students’ reflective journals and semi-structured interviews.

During the intervention, the participants in the experimental group were assigned to keep a reflective journal after every class meeting over 9 weeks of instructions. The journals were considered a record of the participants’ emic view towards the pedagogical approach in the study that was to reflect their learning experience of multimodal tasks. In order to eliminate any language problems that might affect comprehension, the participants kept a journal in Thai, which is their mother tongue.

The other qualitative data set came from the semi-structured interviews conducted after the intervention. The participants in the experimental group were purposively selected to join the semi-structured interview sessions based on their intriguing responses from the reflective journals. The purpose was to obtain in-depth information about their perceptions towards multimodal tasks. Each interview session was conducted with only one participant. In order to eliminate any language problems that might affect comprehension, the participants were interviewed in their native language, Thai. The interview sessions were audiotaped and transcribed verbatim.

Since the journals and interviews provided a large amount of rich data, the technique of data reduction and meaning condensation was applied in the analytical method. The refined data were then analyzed by drawing the codes and assigning themes and translated into English. Member checking method was also adopted as a measure to ensure the trustworthiness of the results.

There were two cycles of the coding of data in this study. In the first cycle, the process started with the reduction of the students’ reflective journals and the semi-structured interview scripts by going through all entries to find repeated patterns and keywords. The following step was coding. The method of coding that was mainly used was *in vivo* coding, with a combination of other methods such as initial,

affective, and process coding, in order to enhance the accountability, breadth, and depth of the findings. After codes were assigned to the statements, themes were drawn based on the participants' responses that connoted similar meaning.

In the second cycle, the initial themes drawn from the first cycle of coding were refined in order to obtain the themes that were more accurate to the study while eliminating the data that were only marginal. After all themes were drawn, detailed analysis of the students' journal entries and semi-structured interview scripts revealed that there were some subthemes for each main theme as well.

The following table displays all the themes and subthemes from the analysis of the students' reflective journals and semi-structured interview sessions. Altogether, there are five main themes, which are overall impression on multimodal tasks, multimodal tasks as reinforcement in critical reading, multimodal tasks as reinforcement in learning, other concerns towards multimodal tasks, and urge to include multimodal tasks in the course and other subjects.

Table 4.12. *Summary of Themes and Subthemes*

<b>Theme</b>	<b>Subtheme</b>
1. Overall impression on multimodal tasks	1. Favour creativity
	2. Cater to individual differences
	3. Open up new experience
	4. Lower anxiety
	5. Benefit out-of-school practice and future use
2. Multimodal tasks as reinforcement in critical reading ability	1. Enhance clarity and comprehensibility in communicating critical reading ideas
	2. Develop careful and active reading
	3. Foster analytical thinking
	4. Strengthen the inference skill



3. Multimodal tasks as reinforcement in learning	1. Improve attitudes towards the course 2. Increase intrinsic motivation 3. Promote self-evaluation 4. Foster self-learning 5. Create a sense of achievement
4. Other concerns towards multimodal tasks	1. Lack certain skills 2. Time management 3. Add more workload
5. Support for multimodal tasks	

To report the findings, the statements from the students' reflective journals and semi-structured interviews were translated into English. Back-translation technique was also adopted to enhance the credibility and assure the accuracy.

The findings showed that the participants' perceptions towards multimodal tasks were positive. However, there were some personal concerns towards the multimodal tasks such as trouble with workload, time management, and lack of certain skills such as drawing and using software. Interestingly, the participants did not feel that the multimodal task was a waste of their time. When they encountered difficulties in completing the multimodal tasks, they tried to find alternatives they could deal with comfortably in order to carry out the tasks. The following part discusses the findings in each theme and its subthemes.

#### **4.2.1 Theme 1: Overall Impressions on Multimodal Tasks**

The first theme drawn from the qualitative data is the participants' impressions on multimodal tasks. The findings indicated that the participants in the experimental

group had a good impression of multimodal tasks. They felt that the multimodal tasks were fun, interesting, and useful.

With detailed analyses, the participants perceived the usefulness of the multimodal tasks in several aspects, which can be categorized into 5 subthemes: The multimodal tasks could (1) favour creativity, (2) cater to individual preferences (3) open up new experiences, (4) lower anxiety, and (5) benefit out-of-school practice and future use.

#### 4.2.1.1 Subtheme 1: Favour creativity

Eight participants stated that the multimodal tasks were a good source of creativity. Doing a multimodal task allowed for creativity on the participants' part as they had to think about the layout and ways to combine preferred modes that could lead to optimum effect and flow in presenting their critical reading ideas.

*"... I feel fun and creative because I can present my critical reading ideas freely. Doing the multimodal tasks really enhances my creativity." (P3)*

*"I got to practice my imagination which I have never done in any English classes. Because I want people to understand what is on my mind about the reading passage, I think really hard about what I have to draw and how I can present it." (P4)*

*"... the fact that the multimodal tasks require us to present our critical reading ideas using various modes really provokes my creativity. I have to think about the design and how the modes can be best combined to present my ideas effectively." (P7)*

*"I have to think of other people regarding whether or not they can understand my message through my design from various modes. This needs a lot of creativity and thinking outside the box." (P10)*

#### 4.2.1.2 Subtheme 2: Cater to individual preferences

Fifty-two percent of the participants (18 out of 35) asserted that learning critical reading through multimodal tasks accommodated individual differences and met the needs of students in terms of their aptitudes in communication and expression of ideas. This could evoke higher levels of engagement among the participants, especially those who perceived themselves as not good at writing.

*“(Learning with) multimodality gives students an equal chance to acquire knowledge and to learn something. It's the fact that using language cannot entirely convey what is on our mind. Some people may have trouble with receiving and manipulating messages via the language channel. Using photos or videos can help.” (P1)*

*“... People have different strengths and preferences. Some are good at drawing while some are good at explaining. The task gives us an equal chance to show our critical ideas about reading texts.” (P2)*

*“I think it is good for us because we have a choice that suits our learning preference.” (P5)*

*“(I like it that) I had freedom to produce the work as I wanted. It could be in many forms and I didn't have to write.” (P6)*

*“For me, I think that it caters to the differences among students. Since I am not good at verbal language, I am not able to communicate as correctly as I want. This can cause miscommunication. If I use a wrong vocabulary word, the message can mean something else. However, if I have some other modes such as photos, images, gestures, I think it helps me communicate easier and better.” (P7)*

*“In my opinion, multimodality helps me communicate easier what is difficult to explain. Also, I can make use of or adapt multimodality to learning. I believe that students today have many different skills and are capable of doing a lot of things. We can create a video clip or draw pictures or use programs and applications to help us learn today. I think it fits us more than using language only. (P11).*

Aligning with the journal, the participants were asked in the interview to elaborate more on the reasons why the multimodal tasks suited their preferences. Responses revealed that multimodality corresponded to their reading process. When they read, they visualized the story in their head based on their understandings. Therefore, it was easier for them to express their critical reading ideas through pictures or graphic elements rather than writing.

*“When I read, my understanding does not come in words but rather in pictures. I can arrange the sequence of the vision in my head. Even if you had asked me to do a written assignment, I would still have visualized it in my head before I transformed it into a text and then would have to think of the vocabulary and grammar, which is quite difficult for me. It was much smoother presenting my ideas about the reading passages through pictures.” (P5)*

#### **4.2.1.3 Subtheme 3: Open up new learning experiences**

Twenty participants revealed that multimodality was something very new to them. Even though some of them realized that multimodality matched with real life communication, this was still their first time ever doing a multimodal task as a part of their classroom learning.

*“I never experienced this in my university years. The closest would be in a previous course in which the teacher allowed us to*

*choose the topic we wanted to do, but the answer was still in writing.” (P5)*

*“Multimodality and doing multimodal tasks are definitely something new to me. Even when I realize that using multi modes is what I usually do in my everyday life, it is still a surprising and new experience in a reading course.” (P6)*

*“It is new for me so I felt confused when teacher introduced the concept of multimodality. But now I think I understand what it is correctly... I think it is a good choice for communication. It helps ease the communication and expression of ideas. I have no stress about what I have to do in this subject now. I am just surprised that I have an opportunity to do something like this in the reading course. I have never expected this kind of learning before.” (P7)*

*“The teacher explained and described multimodality to us. It is something new and very much interesting. I think it offers an advantage for learning this subject. Personally, using different modes can help many students in learning. Overall, today is good.” (P12)*

#### **4.2.1.4 Subtheme 4: Lower anxiety**

Another impression the participants had regarding the multimodal tasks concerned their anxiety. They asserted that doing the multimodal tasks was relaxing and stress-free since multimodality was something they were familiar with.

Compared to the traditional critical reading task, the multimodal task was more fluid as it offered students freedom to choose the modes and mediums they found comfortable and were most confident in for expressing their ideas towards a reading passage. This resulted in a reduction of anxiety.

*“Since doing multimodal tasks does not need perfect written grammar, I feel more relaxed and stress-free.” (P1)*

*“... Besides, multimodal tasks made the learning interesting and relaxing. As a result, I enjoyed learning in this class even more.” (P3)*

*“... using multi modes makes learning English more fun and motivating for me.” (P8)*

*“... I even listened to music while I was doing the multimodal task. It was great fun and more relaxing than any other assignments or homework I have ever received.” (P21)*

#### **4.2.1.5 Subtheme 5: Benefit out-of-school practice and future use**

The last subtheme drawn from the overall impression of the participants towards the multimodal tasks is the benefit to out-of-school practice and future use.

Forty-two percent of the participants (16 out of 35) expressed that the multimodal tasks were relevant to their lives and interests. They also thought that doing the multimodal tasks was advantageous for them not only because it was relevant to their experiences outside of the university but it also prepared them for their future career.

*“I think multimodality is a skill that people in my generation should have because it is useful for the future and real life. Everything is multimodal. Who knows, one day we may have to utilize the skill to achieve something like career success.” (P7)*

*“... doing the multimodal task gives me fun time and lots of useful experience that I can use in real life.” (P8)*

*“Combining multimodality into a reading course is good because it is something modern.” (P12)*

*“I think one of the advantages of multimodality is it reflects the present world. In real life, people communicate using several ways with several modes. This makes people from different places around the world get closer and understand each other more...”* (P13)

*“I think multimodality is what we already use in real life. When I know I will learn something about this in the classroom, I feel good because I will surely use it in my future.”* (P14)

*“Multimodality is important because in our everyday lives we have to communicate. Multimodality will be useful for us to make communication clear and easy. I think that successful communication must make both communicator and receiver understand the same thing. And multimodality will do this job. So, I think learning with multimodality is very useful our lives in the future.”* (P16)

#### **4.2.2 Theme 2: Multimodal tasks as reinforcement in critical reading**

The second theme drawn from the reflective journal entries and the semi-structured interviews is multimodal tasks as reinforcement in critical reading. As the name suggests, findings reveal that the participants perceived that doing the multimodal tasks helped them improve critical reading skills.

Under this theme, there are four subthemes, suggesting that the multimodal tasks could (1) boost the participants’ confidence in reading and proposing ideas, (2) develop new perspectives of thinking and reasoning, (3) foster analytical and critical thinking skills, and (4) strengthen their inference skill.

#### 4.2.2.1 Subtheme 1: Enhance clarity and comprehensibility in communicating critical reading ideas

There were 18 participants who stated that the multimodal tasks boosted their confidence in proposing their critical reading ideas. Since the course requires the students to read and express their critical reading stances towards a passage, the participants perceived that they could express their thoughts and ideas easier and with more confidence with the multimodal tasks. The multimodal tasks set aside their anxiety about the vocabulary issue so the participants could fully express what they really wanted to convey without being worried about making any writing mistakes.

*“The use of multimodality, including the texts, gestures, sounds, and pictures, helps me explain and convey my ideas about critical reading more effectively.” Before this, I did not feel confident in telling what I thought about the passage because I could neither write nor speak well. However, with multimodality, I feel more confident because there are many modes as a helper that I can choose to suit my strengths. This makes me feel better when my ideas can be understood by other people.” (P3)*

*“... I don't agree that if a student can't write the answer, he or she doesn't know the answer. This is totally not true. And doing multimodal tasks confirms that I am right. I was surprised to see that my friends who have been very quiet in English class created fascinating multimodal tasks.... and their inferences were also interesting.... For me, multimodal tasks really help me in telling the teacher what I think and what I gain from the text. I feel at ease and happy knowing that I can read a passage and critique it.... more importantly, I can make my friends and my teacher understand and agree with my critical views.” (P4)*



*“I use multi modes in expressing what I think about a passage more effectively than when I do it with writing. I think using multimodality in the reading course is good for me as I feel I can express the ideas I want. A reading course should be about reading for sharing ideas not reading for writing with perfect grammar.” (P8)*

*“Doing assignments through the multimodal way made me feel more relaxed and more confident in showing my ideas” (P11)*

The participant (P11) was further requested during the interview to explain how multimodality helped enhance clarity and comprehensibility in conveying ideas and how it resulted in boosting her confidence in performing a critical reading. She asserted that using pictures and colours helped exemplify the written answers and eliminated the language difficulty.

During the time she was designing the multimodal task, she had a good feeling about it; that her inferences and conclusions derived from the reading passage were clearly and effectively communicated. This encouraged her to extend her thinking to thoroughly read between the lines. Thanks to the multimodal tasks, the participant asserted that she finally found the better way that helped her express her ideas more successfully.

*“I just felt fun and enjoyment doing the multimodal task... I like the multimodal task and it made me like reading more.... The multimodal task allowed me to better focus on the content and my thoughts .... to discover what was between the lines... With the help of pictures and the colour I put into my multimodal tasks, I can clearly express everything on my mind without struggling to find the correct words in the dictionary, which I also don't know whether they are exactly the correct ones or not... When expressing ideas is so easy... it unblocks my fear... critical reading seems to be easy and not that scary anymore” (P11)*

#### 4.2.2.2 Subtheme 2: Develop careful and active reading

Ten out of 35, or approximately 29 percent of the participants, stated that doing the multimodal tasks helped them read and think more actively. They said that doing multimodal tasks entailed the use of various modes and design processes which leveraged their creative thinking. They were ignited to think outside the box and this really helped them with critical reading.

*“Doing the multimodal tasks really moved me to think outside the box. When I didn’t have to worry about grammar and vocabulary, I could focus more on the ideas I wanted to express. It is like it freed my head. I feel that I started to look and critique the reading passage in a way I have never done before... I started to think in more dimensions while reading... it had colour and lives... what I read became so vivid... And when I transformed my ideas into the multimodal task and it happened to captivate my teachers and my friends, I think I am in the right path of critical reading.”*  
(P2)

*“(Doing the multimodal task) made me realize that we need to consider all factors and have a holistic view, not only seeing thing from one point of view before making a decision... reading had more lives... colours, pictures, textures... I can say I gained new ways of thinking; that it does not have to be linear. I started to capture more details when I read because I had to include them when designing the multimodal tasks... like the appearance of the character or the structure of the setting in the reading passage...”*  
(P10)

*“Personally, the multimodal task helped me think outside the box. Since it is open to any kinds of responses, it really widens my thinking ability and criticism ability. I also love the part that I got*

*to actually do something and produce some work as a product of reading” (P11)*

*“When doing the multimodal task, I could not copy from my friends and vice versa because I have to produce something on my own. This really pushes me to start thinking and reading critically so that I can be able to answer the questions.... Besides, the fact that the multimodal task actually requires designing rather than simply copying the information from the reading passage also involves me in the actual thinking process. I think I gain a lot of things from doing the multimodal tasks, especially thinking about something that I cannot copy from the reading passage.” (P13)*

*“I pay more attention and look for details that I have ignored before when reading.” (P20)*

#### **4.2.2.3 Subtheme 3: Foster analytical thinking**

Apart from developing new perspectives of thinking and reasoning, the findings illustrated that multimodal tasks strengthened analytical and critical thinking skills of the participants.

Fifty-seven percent of the participants (20 out of 35) reflected that they could improve analytical and critical thinking skills from doing the multimodal tasks. Since the multimodal tasks required a thorough analysis in many different dimensions, the participants could not have completed the multimodal tasks unless they had understood the passages well.

The multimodal tasks required the participants to design how they could convey their critical ideas in a multimodal form. This really encouraged them to exercise their analytical and critical thinking because they could not copy the multimodal tasks from their friends. They had to read the passage, analyze it, and come up with their own critical reading thoughts.

*“There were many things I had to think about to get the multimodal task finished. Before you do the task, you have to understand the passage clear enough. If you don't understand and think deeper beyond the passage, you can't infer. Then, you can't do the task because you can't copy from friends like when you write answers.” (P1)*

*“When doing the multimodal task, I could not copy from my friends and vice versa. This really pushes me to start thinking and reading critically so that I can be able to answer the questions. (P13)*

*“... when I do multimodal tasks, it is another challenge since I have to pass on my understanding of the text and analysis to other people. This requires a lot of thinking, analyzing, and critiquing the passage ... the main idea ... or the characters in the story, and planning... so I feel I am more thorough in critical thinking and improve a lot.” (P20)*

*“When I am not stressed, my head is bright, my mind flows, and my thinking is clear. I am encouraged to analyze and think critically because the multimodal task looks fun.” (P23)*

*“I just feel that I think more and analyze better. My critical reading skills improved. On the first day I knew nothing about it and felt a bit scared... It is essential that I understand the passage or I would not be able to critique or express my opinions about it. The multimodal tasks make it fun and friendly for me to step out and dare to analyze. (P27)*

Moreover, the participants were asked to elaborate more in the interview on why the multimodal tasks promoted their analytical thinking.

*“... What we do has to be unique... I mean we cannot copy the design and modes we choose from friends... it would be very obvious to see if we do, right? ... Writing is easier to copy from friends ... and we, students, do it all the time... But with this kind of task,... multimodal... everything, the arrangement, the pictures, the font size, the medium... it has to come from our own initiative... I think this is the important factor that eventually drives us to start analyzing the passage and doing some real work. I think the multimodal tasks trained us to be independent in our thinking, reading, and interpretation skills... this helps enhance analytical thinking...” (P1)*

*“I read the passage many times and think really hard in order to get an answer to the posed questions because I know we cannot copy from each other this time... yeah... it would be easy for the teacher to recognize... Not that we do not want to hahaha... but we want our multimodal task to look as its best when we present it to classmates and the teacher... This is like we have to really start ... you can say we are forced by the multimodal task to... read between the lines by ourselves and I think I did well on it... Also, when there is something more than writing answers, like using photos, creating a video clips, for example, we even have to think more of how we arrange everything and put it in one A4-size paper... We have to think analytically in every process of doing the multimodal tasks” (P13)*

#### **4.2.2.4 Subtheme 4: Strengthen inference skill**

The last subtheme of the third theme drawn is multimodal tasks could strengthen inference skill. Through the multimodal tasks, the participants expressed

that they were able to make inferences and form conclusions about a reading passage confidently and effectively.

*“The multimodal tasks really helped me improve in inference skill. It is about applying what the teacher taught. I would not have successfully achieved the multimodal tasks if I did not understand the passage in the inferential level. Also, the fact that we could not copy the multimodal tasks is the important reason that got me to improve the skill.” (P5)*

*“Paying more attention to little details helped me infer the passage more effectively.” (P7)*

*“The multimodal tasks forced me to think beyond what was given in the passage so I think my inference skill got improved. Before I did the multimodal task, I had to read carefully and think about what it was that the author wanted to tell us or whether there were any hidden messages. If I failed to do so, I would not have been able to answer the questions and complete the multimodal tasks.” (P10)*

*“I got to practice inferences a lot through the multimodal tasks. So I feel improved.” (P12)*

*“I learned to use inference techniques to another level because each student's work was unique and personal. The multimodal tasks gave me the freedom to design, as I wanted. However, it was still important that I understood the passage and inferred correctly.” (P17)*

*“The multimodal tasks scaffolded my inference skills. I got to practice a lot and was able to get a clear picture of what the inferences actually were.” (P30)*

The participant (P7) was further asked about this issue. She clarified that the nature of multimodal tasks that entails the combination of pictures, colours, sound, and movement in expressing critical reading ideas helped her develop an eye for details, which, in return, strengthened her inference skill.

When she inferred, she had to actually visualize the characters, the setting, or the scenes or she would not have been able to transfer those inferences into the multimodal representations. More importantly, those visualizations needed to be based on the implied information given in the text. This ignited a careful and rational consideration of the text for inferences.

*“When I design the multimodal tasks, I had to think of those little details involving the hair colours of the characters, the facial expression, and the clothes they were wearing... These helped in inferences... to see things from different angles and dimensions... because I had to read the passage carefully and think rationally... also I had to use the information given in the passage... I mean the hints or clues that would help me read between the lines into consideration so that I could infer sensibly based on that information ...” (P7)*

#### **4.2.3 Theme 3: Multimodal tasks as reinforcement in learning**

The third theme is entitled multimodal tasks as reinforcement in learning. It suggests that the participants perceived the multimodal tasks as advantageous for their learning. Under this theme, there are five subthemes: The multimodal tasks could (1) improve attitudes towards the subject, (2) increase intrinsic motivation, (3) promote metacognition, (4) foster learning autonomy, and (5) create a sense of achievement.

#### 4.2.3.1 Subtheme 1: Improve attitudes towards the course

The analysis of the students' reflective journal entries suggests that doing the multimodal tasks could improve the participants' attitudes towards the Fundamental English Reading subject.

From the journal entries, the participants stated that the multimodal tasks made the subject they always perceived as boring more fun. The multimodal tasks changed their perceptions about learning reading and made them feel like reading longer passages more.

*“Traditionally, reading has to follow with writing... When the teacher gives us new things to do in the course, I feel interest and fun.” (P1)*

*“I think I feel better about reading. Learning is more fun so I think I made the right choice registering for this course.” (P2)*

*“It made me not as scared as I was in the previous English course. There was too much pressure then. The techniques that you taught us were really useful. Now I know that critical reading can be enjoyable.” (P14)*

*“I personally saw that the content of the course was really boring but the multimodal tasks were really fun and this made the subject better.” (P20)*

*“The thing I gained from doing the multimodal tasks is that I have a better attitude towards reading. I can now feel motivated in reading long passages and I want to read more when I know that I have to design a piece of work to share my thoughts. I feel very thankful to my teacher. (P27)*



#### 4.2.3.2 Subtheme 2: Increase intrinsic motivation

The second subtheme reveals that the multimodal tasks could increase students' intrinsic motivation. Thirty-two percent of participants (11 out of 35) perceived that the multimodal tasks increased intrinsic motivation in learning reading. They stated in their journals that doing the multimodal tasks were not only interesting but also fun and stress-free. This had driven them to develop positive attitudes towards the subject as well as becoming more motivated learners.

*“I normally didn't like studying in English classes, mostly I was afraid of giving wrong answers, but with multimodal method I felt more relaxed and wanted to learn more.” (P3)*

*“I don't think your assignments were time consuming. It was in fact useful and made me want to learn more.” (P8)*

*“I found it different. You gave us freedom to express our ideas, not limited to certain formats. It made me feel comfortable in learning and doing the work. It's really enjoyable and much more interesting than the traditional reading-writing task.” (P9)*

*“Learning by doing the multimodal tasks makes classroom learning more relaxing, interesting, and enjoyable. It makes me want to come to class to study each day even more.” (P10)*

Furthermore, one participant (P9) was interviewed about how the traditional reading-writing task was discouraging. The following excerpt is an elaboration on how doing multimodal tasks motivated her.

*“There were many subjects in my major field of study in which I had to read a long English text and write a response essay to it. For me, neither reading nor understanding the text was too difficult. The difficulty seemed to be about the writing part. Even when the teachers told me not to be too concerned about English grammar because only ideas counted, I still wondered whether my*

*essay was readable and understandable... I had to give up many ideas developed from reading simply because I did not know how to properly transfer them into English writing... I could not help feeling down and discouraged...*

*When you introduced multimodality... I did not expect something like this in an English reading class but it was worth trying so I decided to participate in this research study... I had fun doing the multimodal tasks... I like the fact that it gives me endless opportunities to tell other people what I gain from reading... This makes learning more appealing to me... the feeling of being able to convey all the ideas I gained from the reading text is fantastic. I remember I was eager for the next reading passage, knowing that I had to design another piece of multimodal task to express my critical reading stances... I felt so good studying this course” (P9)*

#### **4.2.3.3 Subtheme 3: Promote self-evaluation**

The next subtheme is that the multimodal tasks promoted students' metacognition. In their reflective journals, forty percent of the participants (14 out of 35) explained and justified their choices of modes and mediums used in completing the multimodal tasks. The modes they chose depended on the way they would like to communicate their critical reading ideas to a reader and their aptitudes. This suggested that doing the multimodal tasks raised their awareness about their reading process as well as their strengths and weaknesses so that they could plan to complete the multimodal tasks accordingly.

*“... I asked myself what is the main idea and what does the author want to tell the reader... Then, I thought about the way to transfer my answers by considering the audience and what I can do... After that, I decided which modes I wanted to use based on what I can do best.” (P1)*

*“I think drawing or using pictures is a basic skill that everyone has and so have I. So, I decided to add a little more of the audio mode to my works because I used to edit songs on the computer... and I discovered that this is what I like and can do best...” (P5)*

*“I think and plan ahead in order to make my multimodal task easy to understand and more appealing to other people... I take the audience into consideration and choose modes that suit them. When I read the passage, I try to catch the main idea first and then I go back to the critical reading question and try to think beyond the lines... I plan the layout and start to work on the design. ... Mostly, I choose to use visual mode to complement the linguistic one because these two modes are easy to do for me. (P8)*

*“I have Photoshop skill so I decided to combine visual, linguistic, and spatial modes in my multimodal task. Apart from that reason, I think it would be easier for me... not to take too long for me... to able to present my critical reading ideas in one A4-size paper. (P13)*

*“I think knowing what I can and cannot do is very important in completing the multimodal tasks... I look at myself and think what abilities I can make use of. So I choose to use 3 modes: linguistic, visual, and spatial. (P18)*

#### **4.2.3.4 Subtheme 4: Foster self- learning**

The findings also revealed that multimodal tasks led the participants to develop self-learning. The participants stated that when preparing for the multimodal tasks, they surfed the Internet to obtain more information about the tools and techniques they could use to complete the tasks. By themselves, they learnt how to use movie-making software and how to collect and organize digital media.

*“I like multimodality.... We really need to depend on ourselves in planning, thinking, and searching for how to use the modes and mediums, and doing the work.” (P4)*

*“Personally, I tried learning Photoshop by myself.” (P14)*

*“I don't think that only people in my generation know better about multimodality. I think everyone can learn and adapt it to real life and learning... When I don't know about how to use a program when working on multimodal tasks, I watched YouTube and Google for how to...” (P16)*

*“I learned the photo-drawing program from the Internet. There are plenty of websites that teach. They are easy to follow and help me a lot...” (P22)*

#### **4.2.3.5 Subtheme 5: Create a sense of achievement**

Lastly, under the second theme, the findings suggested that the multimodal tasks created a sense of achievement among the students.

*“I am really proud of what I can do. It gives me such a spectacular feeling.” (P5)*

*“I am proud of my multimodal task because I really put a lot of effort in producing it. I thought about it, planned it carefully and it helped me express my ideas more effectively. It really motivated me to do better work.” (P7)*

*“I am proud of my multimodal tasks. When I discovered I could do something more than what I used to in typical English classes, I felt pleased with myself. I am also proud that my drawing turned out to be better than my expectation and my classmates seemed to like it. (P10)*

*“I thought a lot and invested all my effort in producing the multimodal tasks. The final product was satisfying. What I feel proud of the most is that I know I can transform what is on my mind into a multimodal piece of work quite successfully and effectively and people like it. The multimodal task turned out to be as expected and it expanded my horizons and capabilities that I can do with reading. (P14)*

The following excerpt is a participant’s elaboration about this issue. The participant (P5) explained that completing the multimodal tasks was a great achievement for her and the tasks were challenging in the sense that they required a lot of planning and thinking skills. She had put a lot of effort into them and it turned out to be satisfying. She felt so happy and very proud of herself that she took photos and posted them on her Twitter account, as shown in Figure 4.19.



**Figure 4.19.** The Participant’s Tweet

*“I feel so proud of myself. I thought and planned carefully when designing the multimodal task because I wanted to make it best portray what I really wanted to critique and look beautiful at the same time. When I completed the multimodal task, I could not help but post it on Twitter because I wanted my friends to see what I just achieved.” (P5)*

#### **4.2.4 Theme 4: Other concerns towards multimodal tasks**

Another theme coded from the reflective journals and the interviews entails other concerns of the participants towards the multimodal tasks. Based on the analysis, there are three of them: (1) lack certain skills, (2) time management, and (3) add more workload.

##### **4.2.4.1. Subtheme 1: Lack certain skills related to multimodality**

The first subtheme deals with the participants’ concern about their lack of particular skills needed in performing the multimodal tasks. Seven participants, or approximately twenty percent of them, considered art-related skills as their weakness. Their concerns were expressed the first time they had to perform the multimodal tasks.

Nevertheless, their perceptions towards the multimodal tasks remained positive. When the participants encountered such difficulties related to art, they tried to find alternatives they could deal with comfortably such as using Photoshop or other design programmes in order to carry out the multimodal tasks.

*“I am not good at art and design. So I decided to use geometric shapes that are included with Microsoft Word and find some more photos from Google.” (P1)*

*“Actually, I am not very good at drawing. However, I wanted to try it out because I wanted to improve it too. I decided to use PowerPoint and Illustrator programs to help me out.” (P6)*

*“I struggled with the process of searching for the pictures that perfectly matched the ones that were in my mind. I did not draw the pictures by myself because I am not an art person. However, I had a good time doing the multimodal tasks. When I got the pictures, I arranged them into the layout so they could supplement my written answers. (P11)*

*“I am very bad at drawing so I explored other modes rather than visual that could help me out.” (P17)*

*“Since I wanted to use as little text as possible, the main problem for me was about finding the right pictures that could represent and implement the critical reading ideas I wanted to convey. (P19)*

#### **4.2.4.2 Subtheme 2: Demand time management skills**

The next subtheme is on the participants' time management. There were two participants, or approximately five percent, who expressed their concerns over the time constraint of doing the multimodal tasks. They thought that the multimodal tasks took a great deal of their time and they had to work very hard on it. Nonetheless, the participants did not perceive the multimodal tasks as a waste of time but the opportunity to practice time allocation for study.

*“It took me a long period to finish. However, it did not bother me. I considered this a good opportunity to practice time management. (P5)*

*“I really wanted to try using different modes other than visual and textual but due to some factors like workload and time constraints from other subjects' assignments and homework, I could not do it. Also, editing video is a time-consuming process...” (P6)*

#### 4.2.4.3 Subtheme 3: Increase workload

The last subtheme regarding the personal concerns of the participants is workload. There was only one participant (representing approximately three percent of all the participants in the experimental group) who stated in the journal entries that the multimodal tasks increased her workload. Since she enrolled for a maximum course load of 21 credits in the semester, she had to carry a heavier workload than other students. In each course, there were a number of assignments, presentations, and other requirements for her to finish. None of them required as much energy and input as the multimodal tasks.

*“I took many courses this semester, each contained a lot of homework and assignments. I got to learn how to manage all the workloads and prioritize the assignments. To be honest, this subject has a much greater workload than other subjects I took.” (P5)*

#### 4.2.5 Theme 5: Support for the integration of multimodal tasks

The final theme coded from the reflective journal and the interviews reveals that eleven participants supported the integration of multimodal tasks in the English reading course. They urged inclusion of multimodal tasks in the course and other subjects.

*“I think it's good if we apply multimodality in teaching and learning other subjects or other language skills such as grammar and listening-speaking. Since nowadays there are several ways for us to choose to communicate, if we use multimodality students will have a chance to practice what is useful to them.” (P1)*

*“After being introduced to the concept and principle of multimodality, I think we can use it in learning many subjects. For example in physics, photos can accompany a paragraph to better convey the content so students understand more.” (P2)*



*“I really supported that you use the multimodal tasks in the following semesters. It really helped the students learn things beyond the classroom. I think perhaps you could be one of the pioneers who used this in teaching, not focusing on the grammar.”* (P4)

*“We can apply multimodality to our studies. Reading English texts is sometimes boring, not really motivating us. So, we can use different modes to help us understand the subject content and improve the particular skills we are learning. For example, when we read English news and see unknown words, pictures can help us understand the (main idea) better...”* (P6)

*“I suggest multimodality be included in learning because it's enjoyable and relaxing. For the multimodal task, I want teachers to consider asking students to combine all the answers in one because it is more challenging than designing the answer for each question separately.”* (P8)

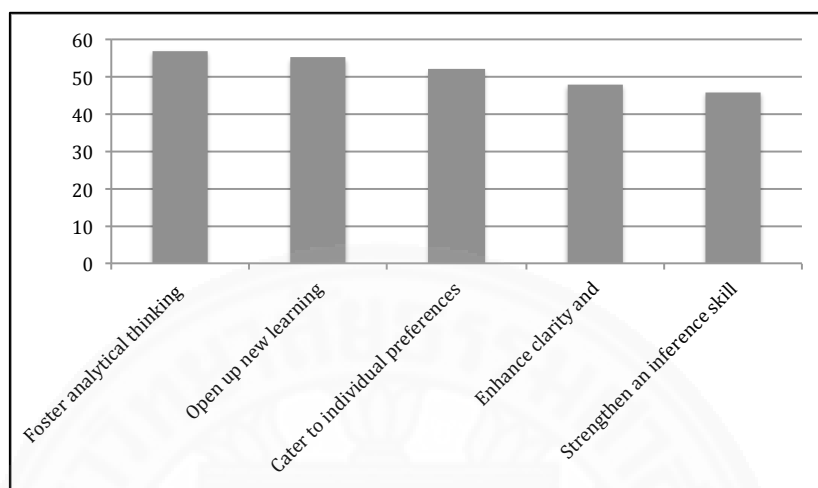
*“I support multimodality in the classroom because I believe that it's not only me who feels demotivated with writing or finding the precise words to explain the ideas gained from reading texts.”* (P10)

*“In my opinion, we should include multimodality into the learning system. I think it helps with comprehending the subject content and remembering difficult concepts.”* (P15)

To sum up the second part, the qualitative evidence from the students' reflective journals and the semi-structured interviews revealed that the participants' perceptions towards the multimodal tasks were generally positive.

Although there were a few negative perceptions expressed by some participants, the key findings suggested that the multimodal tasks had merits on their

critical reading ability and learning in several aspects. Figure 4.20 summarizes the top five perceptions towards the multimodal tasks that were most expressed by the participants.



**Figure 4.20.** Top Five Perceptions towards Multimodal Tasks

### 4.3 Conclusions

The data gained from the quantitative and qualitative inquiries show that the intervention of this research worked considerably well in terms of improving the students' critical reading ability.

First, the results gained from the critical reading pre- and post- tests indicated that the experimental group who were exposed to multimodal critical reading tasks improved significantly between the pre-test and the post-test and also had a higher score gain than the control group at the significant level.

The positive effect of the multimodal tasks indicated by the pre-test and post-test is in line with that indicated by the critical reading tasks. The analysis suggested that the experimental group outperformed the control group in both critical reading task I and critical reading task II at a significant level. The scores of both tasks suggested that the participants in the experimental group were able to use information

given in the text to make inferences and form conclusions about the reading passage as well as could present and deliver their critical reading stances more effectively.

Furthermore, the qualitative findings from the students' reflective journals and the semi-structured interviews with the selected participants also provided a clearer and in-depth picture of the students' perceptions towards the intervention of this research study. Such findings helped the researcher as a teacher gain insights and see a comprehensive view of the intervention from the perspectives of the students.

From the responses, the participants generally had positive attitudes towards the intervention in different aspects. The most important point was that the participants perceived that the multimodal tasks helped them become better in critical reading. The major factor was that the intervention that catered to their individual preferences gave them more confidence in reading and proposing critical reading ideas, as they had been improving throughout the course. To be specific, they perceived the use of the multimodal tasks as a new learning experience that fostered improvement in their critical reading ability. In the practice, they appreciated the opportunity to read, think critically, and articulate their critical reading responses through multimodality.

## **CHAPTER 5**

### **DISCUSSION AND CONCLUSION**

The final chapter summarizes the present quasi-experimental study and its findings. It starts with presenting a brief picture of the implementation of the intervention. The next part discusses the findings and implications. After that, the limitations of this study are pointed out, leading to suggestions and recommendations for further research studies.

#### **5.1 Summary of the Study**

This study was established upon the researcher's observation as an academic reading teacher. Over the years of teaching an English Reading course at the university level, it has been observed that the majority of students had difficulties in mastering their critical reading ability such as making inferences and forming conclusions to the desired level.

Lacking the ability to read critically led to several further problems in their academic life since, at the university level, students are expected to read texts and display their critical reading ideas in their assignments and through their assessment systems. Consequently, the students would become discouraged by the lack of progress, resulting in a constantly reduced motivation to learn.

A primary investigation was carried out through interview sessions with other teachers who teach the English Reading course. This was to confirm that the problem was not exclusive to the researcher's practice and to obtain the baseline data on their current practices and concerns about the issue.

In light of the problem and its repercussions, this study was conducted to investigate a pedagogical approach that could enhance the critical reading ability and perceptions of Thai EFL university students.

From an extensive review of literature on critical reading, increasing attention has been paid to multimodality. With the potential to improve the situation, several

researchers have a particular interest in how multimodality could contribute to the learning enhancement and motivation of students. This is exactly the concern of this present study. That is to say, it proposed the incorporation of multimodal tasks as an alternative method of teaching critical reading and explored its effects on critical reading ability and perceptions of Thai EFL university students.

This study is a quasi-experimental research in design with mixed-methods of data collection. Since the major objective of this research study was to investigate the effects of multimodal tasks on critical reading ability and perceptions of the students, the independent variable was the teaching of critical reading through multimodal tasks and the dependent variable was students' critical reading ability and perceptions.

Two intact groups of participants were included and randomly assigned to the experimental group and the control group. The two groups studied the same course contents prescribed by the syllabus on the same days (Tuesday and Thursday for 90 minutes each) for 9 weeks with the teacher-researcher.

In terms of the approaches for teaching critical reading, the experimental group received a treatment in which they were taught critical reading through the integration of multimodal tasks. On the contrary, the participants in the control group were taught critical reading through a traditional approach and reading tasks.

In collecting data for the study, the instruments consisted of quantitative and qualitative kinds. The quantitative data collection instrument was a critical reading test, consisting of 30 items of multiple-choice and open-ended questions. The test domain focused on the ability to draw inferences or logical conclusions, which are aspects related to critical reading ability.

Before its actual use, the test was inspected for its content validity through the Index of Item-Objective Congruence protocol (IOC), revised, and piloted (the difficulty index = 0.59 and  $\alpha$  coefficient of reliability = 0.83). The same test was used as a pre-test and a post-test.

For the qualitative part, the instruments included students' reflective journals and semi-structured interviews. The journals were in a semi-structured open-ended format using Google Docs. The purpose of the journals was to gain a contextual understanding of the participants' experiences in learning critical reading through multimodal tasks.

The other qualitative data collection instrument was the semi-structured interviews whose purpose was to probe for in-depth information on the participants' perception towards multimodal tasks.

The data collection was divided into three phases: pre-intervention, intervention, and post-intervention.

For the pre-intervention phase, the participants in both groups were given the pre-test to assess their critical reading ability before the implementation of the multimodal tasks.

During the study, the participants in the experimental group received the treatment that required them to perform multimodal tasks after reading a text, while the control group did traditional writing tasks. The total duration of the study period was nine weeks. The participants in the experimental group were assigned to write a reflective journal on their learning experiences, thoughts, opinions, and feelings after completing each class.

After the intervention, the participants in the experimental group and the control group were provided a post-test to assess their critical reading ability. Moreover, seven participants in the experimental group were randomly selected to attend semi-structured interviews. Each session took approximately 20-30 minutes based on a one-on-one discussion basis. In order to eliminate any language problems that might have affected comprehension, the participants were interviewed in their native language, which is Thai.

Finally, the data collected were analyzed separately and were later integrated in the data interpretation for triangulation in order to increase the trustworthiness of the findings.

For the quantitative data, the pre-test and post-test were rated by two raters. To ensure that the scores between the two raters were consistent and valid, the inter-rater reliability was statistically analyzed using Pearson correlation. The results indicated high correlation in the scorings of the two raters. Then, the pre- and post- critical reading test scores were analyzed and compared using descriptive means and S.D. and inferential statistic protocols (Independent Samples t-Test and Paired Samples t-Test).

For the qualitative counterpart, the data from the reflective journals and semi-structured interviews were transcribed, coded, and assigned themes.

## **5.2 Summary and Discussions of the Findings**

In the present study, two research questions were proposed. The first research question “To what extent do multimodal tasks enhance critical reading ability of Thai EFL university students?” is quantitative in nature. It plays a big role in determining the effectiveness of the intervention in this study. The second research question “What are students’ perceptions towards multimodal tasks?” provides qualitative supplements that explain the phenomenon under this study.

As far as the literature review goes, most previous studies investigating the integration of multimodality were qualitative studies. Very few of them precisely focused on the aspect of critical reading. It is relatively difficult to find previous research studies, particularly in a Thai EFL academic context, that fully support or even contravene the findings of the present study.

Apart from comparing the results with other related previous studies emphasizing academic English reading, the following discussion is, therefore, mostly confined to the context where the present study was conducted. It integrates the results of both quantitative and qualitative data in order to interpret and give

explanation to the major findings. The scope of the discussion covers two main areas, namely, critical reading ability and perceptions towards the multimodal tasks.

### **5.2.1 Summary and Discussions in Relation to Critical Reading Ability**

The major findings obtained from the statistical analysis generated by SPSS (Version 23.0) reveal that the improvement between the critical reading pre-test and post-test was significantly greater for the experimental group than the control group at 0.05 level (sig. = .000). This suggests that the integration of multimodal tasks has a positive effect on students' critical reading ability.

In addition, the comparison between the scores of the two critical reading tasks assigned during the study also revealed the effectiveness of multimodal tasks at 0.05 level (sig. = .013 and .009). In relation to critical reading ability, the students in the experimental group were found to outperform those in the control group in the tasks as they made better inferences and drew conclusions that were clearly and logically based on the reading texts.

In terms of delivery, they were better able to present their critical reading stances and effectively draw more concrete pictures from their understandings than the students in the control group. Their tasks reflected a great deal of originality, inventiveness, and creativity. This implies that the multimodal tasks allowed them to better engage with the reading contents and more effectively convey their critical reading ideas.

The quantitative findings of this present study that manifested the effectiveness of multimodal tasks on enhancing critical reading ability are consistent with previous studies such as Baharani and Ghafournia (2015), Boshrabadi and Biria (2014), and Kuo, Yang, and Kuo (2010), at various levels of learning, from primary school to university. They all found positive impacts of integrating multimodality into the teaching of academic English reading as the students significantly improved their reading comprehension performance after being exposed to multimodality-based lessons.



On the participants' side, they perceived this improvement on their critical reading ability and thought that the multimodal tasks were a great device for them to train in critical thinking. As reflected in the journals, the participants generally agreed that the multimodal tasks enabled them to respond to reading passages without being afraid of making grammatical and lexical mistakes. This made them feel at ease in critical reading, which resulted in their motivation to push their interpretation into another level. As a result, they gained more confidence and could read between the lines more effectively.

This is in line with Benson (2008) and Lee (2013) who found that multimodal activities proved to be effective in sharpening students' analytical and critical thinking. In their previous studies, multimodality were integrated into classroom activities as the students were required to design and produce artifacts that entailed the combination of various semiotic modes in order to present their ideas about a particular topic. The integration of multimodal modes into classroom activities pushed the students to think in new directions as it triggered them to start seeing the world in different dimensions. In line with this present study, this is believed to tap into the participants' analytical and critical thinking because they had to carefully consider the design of how they could make use of multimodal modes to best convey their critical reading ideas to prospective audiences.

Moreover, Lee (2014) explained that the incorporation of multimodality acted as a catalyst that could stimulate the participants to think more about what they are doing. As the participants in this study were engaging in producing a multimodal artifact, they took into careful consideration different elements of communication such as purposes, audiences, and mediums in order to plan for effective communication. This was the process where their analytical and critical thinking were sharpened. As a result, the participants perceived that their critical reading ability were improved.

Apart from the positive effects in enhancing critical reading ability, the present study has also found other merits of the multimodal tasks, which are discussed in the following section.

### **5.2.2 Summary and Discussions in Relation to Perceptions towards the Multimodal Tasks**

The findings from the qualitative inquiries, namely the students' reflective journals and semi-structured interviews, revealed that the students generally had positive perceptions towards the multimodal tasks. They addressed the usefulness of the multimodal tasks in several aspects. This enriches the major findings of the present study as well as additionally provides a set of rationale that explains the effects of the multimodal tasks in enhancing critical reading ability.

#### **5.2.2.1 Authenticity**

First of all, the qualitative findings suggested that the multimodal tasks were authentic and relevant to the participants' real lives. The participants perceived that the multimodal tasks that entailed the use of various modes in conveying critical thoughts shared more or less common characteristics with actual communication tasks they usually perform in their everyday routines. Based on this premise, they saw the multimodal tasks as advantageous for their future careers.

The multimodal tasks assigned to the participants in this study were designed based on the Learning by Design framework, which accommodates authentic-like tasks. According to Kalantzis and Cope (2005), the framework not only pays attention to the fosterage of critical thinking but also emphasizes the real-world tasks that the students would encounter in their real-life professional domains.

In this study, the participants shared their critical reading stances with the wider community through the multimodal representations. These participants are the 21<sup>st</sup> century citizens who usually participate in social network routines where they share their lifestyles and interests to other people in the forms of videos, photos, and

songs. This explains why the participants could relate multimodal tasks into what they believed useful for the future, as the multimodal tasks involved various skills.

This is in line with Daniels (2001), Hung, Tan and Koh (2006), Siegal (2012), and Vaarala and Jalkanen (2010), stating that the authenticity of multimodality was effective in engaging today's students in classroom learning. In the present study, the participants stated that the authentic feature of the multimodal tasks which required open-ended inquiry as well as the incorporation of various skills added some challenges to them. It also encouraged them to invest more time into their thinking when they were planning to accomplish their multimodal tasks, which was useful for future careers.

#### **5.2.2.2 Learning Preferences**

The second aspect is that the multimodal tasks accommodated the participants' learning preferences. The integration of the multimodal tasks was incorporated to ensure that every student had the same opportunity to engage and learn. Unlike conventional reading tasks, the participants commented that the multimodal tasks in this study gave them freedom to comfortably select the semiotic modes, namely linguistic, visual, aural, spatial, and gestural ones, they were comfortable working with.

This confirmed what Sternberg (2000) pointed out, that multimodality encourages the students' participation and embraces their individual preferences. It is a fact that students are naturally different. They do not learn in exactly the same way. When the participants' interests, curiosity, and areas of confidence have been used as starting points in planning an instruction, it can be seen in this present study that learning is more productive.

Moreover, the participants argued that the multimodal tasks that entailed the integration of various semiotic modes helped them determine and understand their strengths and weaknesses. Since the multimodal tasks provided them a chance to

experiment with different styles, they could eventually discover themselves and develop insights into their learning profiles.

This finding is in line with Lee (2014). The participants expressed that the more they knew about their strong and weak points, the more effectively they engaged and could orient their English language learning. When they created the multimodal tasks, they had to continuously consider how to present and arrange the critical reading ideas. This involved selecting the multimodal modes. Therefore, thinking of their strengths and weaknesses helped them choose the modes that suited their styles, which affected their performances on the multimodal tasks.

Furthermore, the finding is also in line with Chen and Fu (2003), Lee (2014), and Siegal (2012) who concluded that the integration of multimodality into teaching and learning left no students behind. In this study, the multimodal tasks had proved to reduce the disadvantages of the traditional critical reading tasks and meet different learning styles of students. As the participants were working on the multimodal tasks, they decided to utilize the multimodal modes that would help them achieve their maximum potential in performing the tasks. The participants argued that this freed them from the confinement of other tasks they had done in other courses.

### **5.2.2.3 Intrinsic Motivation**

The study also found that the multimodal tasks increased the participants' intrinsic motivation. Given an opportunity to make their own choices, the participants in this study generally developed positive attitudes towards learning and reading in English. Their reflections from the journals implied that the nature of the multimodal tasks encouraged them to participate. Moreover, their enthusiasm and interest in the subject learning was shown through the completion of the tasks. They invested their best energy and ability in performing the multimodal tasks.

One explanation for the increasing of the students' motivation could be its relevancy to the lives of the students. This is in line with Siegal (2012). The participants addressed that the major reason why the multimodal tasks were

motivating because they were aware of the relatedness of multimodality and their real lives. Doing the multimodal tasks, they felt they were doing something worth knowing in a modern world. They perceived that they had value within the context of the class so; as a result, they became more motivated to learn.

Another explanation was the variation of the multimodal tasks. Since the multimodal tasks embraced various kinds of communication modes, the participants expressed that they all had an equal chance to excel at the tasks. This characteristic of multimodality empowered them, even those who were linguistically less able, to be more confident and less anxious in learning. This is consistent with Boshrabadi and Biria (2014), Darrington and Dousay (2014), and Oldakowski (2014).

Moreover, performing the multimodal tasks was perceivable among the participants as creating an artistic work, which was generally relaxing and enjoyable to them. Due to this fact, the participants were highly motivated. As pointed out in the interviews, performing the multimodal tasks did not require only the application of critical thinking and analytical skills from them, but it also opened up their creative and artistic sides. They also liked that they were given full freedom to design and create how to convey their critical reading stances. Moreover, the participants addressed that the multimodal tasks simplified learning critical reading that seemed boring and difficult to them.

This is in accordance with Lirola (2014) and Sankey, Birch, and Garder (2010). The integration of multimodality created a dynamic to learning as well as positively affected students' learning progress. As noticed in this study, as the participants were motivated, they were also willing to open their minds to read more critically and put their best effort in creating their multimodal tasks.

Moreover, similar to Yeh (2018), the participants stated that the multimodal tasks fostered passion, enthusiasm, and excitement within them, not only in the process of designing and working on the task but also in learning critical reading. This allowed them to immerse themselves to learn the target content and led to the improvement of their critical reading ability.

#### 5.2.2.4 Self-learning

Additionally, the multimodal tasks perceivably helped in developing the participants' self-learning about many skills and certain knowledge about digital media and application. There were many times that the participants had to make full use of the Internet, such as learning how to use a particular photo-editing or movie-maker programme from YouTube in order to regulate their multimodal tasks. They learned to tackle technical problems along the task completion by themselves. Such an active role in performing multimodal tasks was evident to promote self-learning. It also reflects student-centered as well as independent learning.

The result is aligned with Lee (2014), Lirola (2016), and Yeh (2018) wherein students had been reported to develop self-learning after participating in multimodal projects. Similar to the present study, the classroom instructions and setting were designed in a way that created opportunities for the participants to exercise their capacity for autonomy. The lessons were not teacher-fronted but allowed the participants to sensitize their own way of working and adopt different ways of thinking about their tasks. The participants; thus, were pushed beyond the linguistic aspect a conventional English language course could offer as they were learning various multimodal skills.

Corresponding with Hafner and Miller (2011), the participants explained that their self-learning and commitment to the multimodal tasks were a result of the task authenticity. They perceived that the multimodal tasks were meaningful. The sharing of ideas in a multimodal form was similar to what they usually did outside classrooms. When they encountered some technical problems such as during a Photoshop process, they did not feel demotivated but enthusiastic to get through it. It deepened students' understandings of the reading passages in an authentic way.

Furthermore, as a result of self-learning, the participants' multiliteracies were nurtured. In agreement with Hung, Tan and Koh (2006), the participants noticed that they could learn to integrate various modes harmoniously in order to best represent their critical reading stances. They were aware of the function of each mode and

perceived that the multimodal tasks improved their way of expression and expanded their literacy repertoire.

### **5.3 Implications**

The empirical evidence from the present study yields insights into the use of multimodal tasks in the actual English reading classroom in the Thai context. The findings of the study, which stand in line with previous research studies, showed that multimodal tasks produced positive outcomes in terms of improving critical reading ability and enhancing students' positive perceptions in learning. In addition, the findings can provide information that embodies an informed practice on the instructions of academic English reading in the tertiary education level. The knowledge gained should be transferred to other teachers of the same discipline. Thus, some implications for incorporating multimodal tasks into an EFL academic reading classes are suggested. Further details are as follows.

#### **5.3.1 Instructional Sequences**

Based on the results of this research study, multimodal tasks can be incorporated into an English reading curriculum as it is evident in this study that multimodality can empower the students to develop their critical reading ability to their potential. The following are some guidelines for pedagogical implications of multimodal tasks in EFL reading.

Data from the present study suggest that the Learning by Design framework, which was employed in this study, constituted a valuable approach for supporting EFL students' engagement with critical reading. It focuses on creating learning spaces that facilitate social interaction and enhance the learners' reading experiences through various kinds of literacy necessary for lives outside schools. Also, it allows the teacher-researcher to draw from students' life experiences during the very first phase and to scaffold throughout the learning process. For these reasons, this study recommends teachers consider adopting the pedagogical framework of Learning by

Design, especially if they aim to create a learning environment in the EFL classroom that fosters student-centred, collaborative, critical and analytical thinking, as well as higher-order reading.

In an EFL reading course, the framework allows for the integration of multimodal tasks. The tasks provide the students a hands-on opportunity to utilize their knowledge related to the subject learnt and to foster their multiliteracies at the same time. For instance, one idea for designing the multimodal tasks for reading comprehension could be asking students to retell the story they read by producing a multimodal artifact, which can be a comic strip, poster, or claymation, that represents the idea or plot of the story.

Within the framework, pedagogical steps are also equipped. To teach critical reading, the very first step should be connecting and linking students between school learning and the practical out-of-school experiences. Starting a lesson with a lecture-oriented session on the impact of technology and changing literate practices is highly recommended. This is to escort the students to be aware of the changing trends of literacy and communication and how it affects them as a learner and a citizen of the world.

After that, activities that are grounded in experiences of the students could follow. For example, the teacher may assign their students to do some Internet research and gather Facebook or Twitter posts about a controversial issue or a talk of the town at that particular moment. The teacher then asks the students to decide which post is the most convincing to them and why. Working in teams is preferred as different students can take on different roles when they share and combine their own schemata in the discussion. This activity is considered a catalyst that activates and prepares the students for critical reading.

The following step would be to assist the students to gain conscious or metacognitive awareness of what they are going to learn. It is very important that the teacher provide their students with knowledge about multimodality and functions of each semiotic mode. In this step, the teacher is suggested to lead a discussion on how



multimodality could work across the English reading course. The objective is to foster and prepare the students for the multimodal tasks, which entail the utilization of various semiotic modes. Moreover, the discussion would also aim to raise the students' awareness towards the importance of multimodality.

Apart from the discussion, instruction on the concept and principle of multimodality should be emphasized. This is to explicitly provide the students with tools and strategies that they can utilize in designing and performing the multimodal tasks.

Meanwhile, the teacher may start encouraging the students to become active conceptualizers who construct their own redesign or production of new texts, graphics, or videos. Since it is not always easy for the students to understand and appropriately apply each multimodal mode in just a blink of an eye, they need time to implement them all, to collaboratively work in groups, to discover their strengths and weaknesses, even with the help of their friends, and to ultimately internalize and use multimodal modes effectively and meaningfully in their multimodal tasks. This can be simply achieved through an in-class activity in which the students are asked to simply retell the reading story in a multimodal form by producing a multimodal artifact that represents their understanding of the story.

In this stage, guidance, encouragement, and constructive feedback from the teacher are all important and equally needed. It is important for the teacher to understand the students' individual differences and establish such beliefs. Having a clear understanding of the students' differences, for example their linguistic background, competence, and learning style, is necessarily crucial in planning and implementing the upcoming multimodal tasks. The teacher might arrange another session or allocate some class time to have the students share their multimodal artifacts and receive comments and feedback from their classmates. Seeing their peers' artifacts can broaden the students' design ideas and skills as they learn from each other.

The following session is to tap into the students' critical minds. The objective is to scaffold the students' critical thinking in order to approach a reading text in a critical manner. The teacher should guide the students to understand and see that there is no one universal truth in any text and graphic and that what is told, shown, or studied is selective. It is also suggested that the teacher give their students a list of critical reading guidelines and questions.

After students complete a text-based reading, the teacher should then integrate picture stories or comic strips into critical reading lessons. Practicing interpretation from both text-based and multimodal-based materials has been proved to well frame critical thinking and analytical skills to the students. The teacher can ask their students to consider who developed it and what they were trying to tell and why. Moreover, the teacher can also lead a discussion on the author's critical selection of appropriate tools, texts, modes, mediums, and technology for a particular task and purpose.

For the final step, it is time for the students to apply the knowledge and skills learnt in an authentic-like task. A multimodal task is highly recommended. It is the task that requires higher-order reading as well as the skill to integrate various multimodal modes from the students. The teacher is suggested to select a reading passage that allows for an open discussion and should also pose questions that require an inferential level of reading to their students. In order to answer the questions, the students are required to integrate knowledge of multimodality in the design and creation of their multimodal representation.

### **5.3.2 Roles of the Teacher**

The teacher is recommended to go further than simply imparting knowledge. While the main roles of the teacher remain mostly the same, changes in some aspects are inevitable. The teacher needs to understand their students and learn to view learning from their perspective.

As a facilitator, the teacher needs to create an environment that is supportive to the students' development in intellectual and multimodal domains. Apart from

setting and supervising the multimodal tasks to the desired direction, the teachers must motivate their students and provide authoritative feedback on their performance. Since the multimodal tasks could be something new for the EFL reading course, encouraging the students to open their minds and dare to step outside of the traditional task routine is of utmost importance for productivity and effectiveness of the multimodal tasks. This also includes encouraging the students to become autonomous learners. Also, the teacher should provide appropriate explanations and on-going guidance on performing the multimodal tasks.

Besides, as an evaluator, the teachers' role includes giving their students feedback, suggestions, and evaluation on their multimodal tasks. This would help the students improve and be more aware of what to do while working on the multimodal tasks. Since an evaluation can be subjective, the teachers must ensure that the evaluation process is conducted fairly. This study provides a validated grading rubric for the multimodal tasks that the teachers can adopt.

Finally, as occurred in the present study, the teacher can experience that some students seem to misconceive the true objective of the multimodal tasks. They may pay too much attention to the artistic skills, rather than emphasizing their critical reading ability, therefore the teacher must first start by guiding students through explicit and step-by-step instructions. It is important to ensure that the students have a clear understanding of the purpose of utilizing multimodality in the multimodal tasks.

### **5.3.3 Other Concerns**

Time is one concern. The students should be given enough time for completing each multimodal task. In this study, the participants were able to complete their multimodal tasks in a week's time. However, the teachers are recommended to adjust the time frame as they see fit with the curriculum.

Moreover, some students may have negative perceptions towards the multimodal tasks in terms of time consumption and additional workload. This can be handled by switching from assigning an individual task to a pair or a group task.

#### **5.4 Limitations of the Study**

This study revealed some significant results of the critical reading tests and positive perceptions of the group of students who were exposed to the multimodal tasks. However, it is important to acknowledge the limitations of the study in order to assist future researchers who plan to use similar ideas and methods. This is also to pave ways for extending this study into any future research. These limitations are presented as follows.

First, the present study was conducted with a small number of participants who were intact groups of university students. The participants were not randomly selected but were subject to convenience sampling due to the fact that they were existing groups enrolled in the two sections of the Fundamental English Reading course assigned to the teacher-researcher. Therefore, generalizing the findings of the study to other groups of students in wider populations should be done carefully.

Second, this experimental study was carried out within a short period of time. Since the focus of the study was on the second half of the course that entailed critical reading skills, the duration of implementing the intervention was only 9 weeks out of the 16-week semester length. Having a longer time exposure on the intervention should provide more robust evidence and details relevant to the outcome of the study.

Finally, there are limitations due to the nature of the experimental study. The experimental method is ideal for determining a cause-effect relationship. It was used in this study because it was intended to test the theory of multimodality on critical reading ability. The current experimental study has a pre-test and post-test control group design using two groups – a control group and an experimental group. One problem with this design is that pre-testing participants might affect their subsequent performance. The testing effect should be taken into consideration since there was a short interval between the pre- and post-test in this study.

### **5.5 Recommendations for Future Research Studies**

This study could be the first study to investigate the effects of multimodal tasks on critical reading ability and perceptions of EFL students in the Thai higher education context. Therefore, there are a number of recommendations for further research suggested below.

Due to the limitation of the small number of participants, it is recommended that future studies be conducted with a larger number of participants. Random selection and assignment is also another suggestion on the part of recruiting and dividing the participants into groups. A true experimental research study could result in more empirical evidence of the effects of multimodal tasks, which would enhance the generalizability of the research findings.

Moreover, a study and implementation of multimodal tasks in a longer period of time can be conducted. The prospective results may provide more in-depth explanation of the merits that multimodality could offer.

In terms of a research methodology, collecting data from participants in other settings may yield different findings.

Equally interesting, future studies may consider investigating the incorporation of multimodal tasks into the teaching of other different English skills.

Finally, in order to yield other relevant data, future studies may also consider employing other data collection instruments such as questionnaires, delayed post-tests, different assessment tools for the quantitative part, and a researcher's log, headnotes, vignettes, students' diaries, and observations to the qualitative part.

### **5.6 Conclusions**

The findings suggested that the students who performed multimodal tasks significantly improved their critical reading ability and also generally had positive perceptions towards multimodal tasks. In addition to fostering analytical thinking and critical reading skills, the students perceived multimodal tasks as useful for enhancing

their motivation towards reading as well as for preparing them for out-of-school experiences.

Based on the findings, the present study supports a constructionist view of language learning. In this view, the multimodal tasks facilitated more authentic learning, in that critical reading concepts became more meaningful as the students were connected to the performance of a concrete task in which they took responsibility for their own learning. They utilized different strategies to face the challenge of reading in analytical and critical manners while having to use a combination of various semiotic modes to communicate such critical reading stances to others.

In addition, having the students self-explain their multimodal practices fostered their understanding of their active engagement in an alternative learning space. This, as a result, helped develop their awareness of how the new learning modality enhanced their meaning-making skills and stimulated deeper reflection on critical reading.

Viewing an EFL reading classroom as a multimodal environment calls for a reconceptualization of meaning-making practices. It could be argued that this practice may show its negative side in finding some of the students lingering in the enjoyable part of using artistic skills, rather than working on improving their language skills. Such artistic, multimodal processes can, instead, be considered in the positive light of the cognitive drive to negotiate meaning making in terms of decision-making and self-monitoring skills.

When transferred to language improvement, the multimodal skills have proved extremely helpful. As Jewitt (2001) clarified, appreciating multimodality does not mean the linguistic realization of meanings is no longer important, this study would like to insist that other modal realization of meaning is equally important. Learning; therefore, can no longer be considered to be a purely linguistic accomplishment.

To sum it up, the rapid pace of change from textual to multimodal representations of information urges an immediate response from language educators

and policy makers. First and foremost, this requires the will to re-conceptualize past practices. It is crucial to acknowledge that implementing multimodality in an EFL practice is timely for students who are now surrounded by a technology-saturated and multimodal-rich environment.



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**APPENDICES**



## Appendix A - Permission Request for Conducting a Research



# บันทึกข้อความ

ส่วนงาน ภาควิชาภาษาต่างประเทศ คณะมนุษยศาสตร์ โทร. 1442 ต่อ 1302

ที่ ศธ 0513.10505/

วันที่ 9 มกราคม 2561

เรื่อง ขออนุญาตขอทราบข้อมูลกับนิสิตที่ลงทะเบียนวิชา 01355201 ในภาคการศึกษา 2/2560

### เรียน หัวหน้าภาควิชาภาษาต่างประเทศ

ด้วย ดิฉัน นางสาวสาวิกา วราภรณ์ อาจารย์ประจำสาขาวิชาภาษาอังกฤษ กำลังอยู่ในระหว่างการลาศึกษาระดับทุนปริญญาเอก สาขาวิชา English Language Teaching (หลักสูตรนานาชาติ) ณ มหาวิทยาลัยธรรมศาสตร์ ประเทศไทย ตามความทราบแล้วนั้น

ในภาคการศึกษา 2/2560 นี้ ดิฉันมีความประสงค์จะทำการทดลองและเก็บข้อมูลงานวิทยานิพนธ์ระดับปริญญาเอก หัวข้อ Effects of Integrating Multimodality on Critical Reading Ability and Learning Perception of Thai EFL Tertiary Students กับนิสิตที่ลงทะเบียนในหมู่เรียน 10 และ 11 ซึ่งเป็นหมู่เรียนที่ดิฉันเป็นอาจารย์ผู้สอน โดยวัตถุประสงค์ของวิทยานิพนธ์คือเพื่อทดลองนำทฤษฎี multimodality มาประยุกต์ใช้ในการเรียนการสอนวิชาการ อ่านภาษาอังกฤษเบื้องต้น (Fundamental English Reading) และศึกษาถึงผลสัมฤทธิ์ทางการเรียนและทัศนคติของผู้เรียนที่มีต่อการเรียนผ่านทางการเปรียบเทียบระหว่างกลุ่มทดลองและกลุ่มควบคุม ทั้งนี้ดิฉันขอชี้แจงว่าการทดลองและเก็บข้อมูลวิทยานิพนธ์นี้จะไม่ส่งผลกระทบต่อ การเรียน เนื้อหาวิชาและการเก็บคะแนนของนิสิตตามที่ได้กำหนดไว้ในประมวลการสอนรายวิชา (Course Syllabus)

จึงเรียนมาเพื่อโปรดพิจารณา

(นางสาวสาวิกา วราภรณ์)

อาจารย์ประจำภาควิชาภาษาต่างประเทศ

## Appendix B - Permission Request for KU-EPT



### บันทึกข้อความ

ส่วนงาน ภาควิชาภาษาต่างประเทศ คณะมนุษยศาสตร์ โทร. 1442 ต่อ 1302

ที่ ศธ 0513.10505/

วันที่ 9 มกราคม 2561

เรื่อง ขอความอนุเคราะห์ใช้ข้อสอบ KU-EPT ส่วน Reading Comprehension ในงานวิจัย

#### เรียน หัวหน้าภาควิชาภาษาต่างประเทศ

ด้วย ดิฉัน นางสาวสาวิกา วราภรณ์ อาจารย์ประจำสาขาวิชาภาษาอังกฤษ กำลังอยู่ในระหว่างการลาศึกษาระดับทุนปริญญาเอก สาขาวิชา English Language Teaching (หลักสูตรนานาชาติ) ณ มหาวิทยาลัยธรรมศาสตร์ ประเทศไทย ตามความทราบแล้วนั้น

ในภาคการศึกษา 2/2560 นี้ ดิฉันมีความประสงค์ที่จะทำการทดลองและเก็บข้อมูลงานวิทยานิพนธ์ระดับปริญญาเอก หัวข้อ Effects of Integrating Multimodality on Critical Reading Ability and Learning Perception of Thai EFL Tertiary Students กับนิสิตที่ลงทะเบียนในหมู่เรียน 10 และ 11 ซึ่งเป็นหมู่เรียนที่ดิฉันเป็นอาจารย์ผู้สอน โดยวัตถุประสงค์ของวิทยานิพนธ์คือเพื่อทดลองนำทฤษฎี multimodality มาประยุกต์ใช้ในการเรียนการสอนวิชาการอ่านภาษาอังกฤษเบื้องต้น (Fundamental English Reading) และศึกษาถึงผลสัมฤทธิ์ทางการเรียน และทัศนคติของผู้เรียนที่มีต่อการเรียนผ่านทางการเปรียบเทียบระหว่างกลุ่มทดลองและกลุ่มควบคุมจึงใคร่ขอความอนุเคราะห์ใช้ข้อสอบ KU-EPT ส่วน Reading Comprehension มาใช้วัดความสามารถทางการอ่านของผู้เรียนก่อนเข้าร่วมงานวิจัยนี้

จึงเรียนมาเพื่อโปรดพิจารณา

(นางสาวสาวิกา วราภรณ์)

อาจารย์ประจำภาควิชาภาษาต่างประเทศ

## Appendix C - Consent Form

วันที่ให้คำยินยอม

วันที่ \_\_\_\_\_ เดือน \_\_\_\_\_ พ.ศ. \_\_\_\_\_

การวิจัยเรื่อง Effects of Integrating Multimodality on Critical Reading Ability and Learning Perception of Thai EFL Tertiary Students เป็นส่วนหนึ่งของการศึกษาระดับปริญญาเอก สาขาวิชา English Language Teaching (หลักสูตรนานาชาติ) ณ มหาวิทยาลัยธรรมศาสตร์ มีวัตถุประสงค์เพื่อทดลองนำทฤษฎี multimodality มาประยุกต์ใช้ในการเรียนการสอนวิชาการอ่านภาษาอังกฤษเบื้องต้น (01355201 Fundamental English Reading) ในภาคการศึกษา 2/2560 และศึกษาถึงผลสัมฤทธิ์ทางการเรียนและทัศนคติของผู้เรียนที่มี ต่อการเรียนรู้ด้วยวิธีดังกล่าว โดยผลจากการวิจัยครั้งนี้จะเป็นประโยชน์ในการนำไปพัฒนาหลักสูตรและออกแบบเนื้อหาการเรียนการสอนวิชาการอ่านภาษาอังกฤษที่สอดคล้องกับความต้องการทางด้านการเรียนรู้และการสื่อสารในยุคปัจจุบันเพื่อมุ่งเน้นถึงผลสัมฤทธิ์ในการเรียนของผู้เรียนในระดับอุดมศึกษาและการสร้างทัศนคติที่ดีต่อการเรียน เป็นจุดมุ่งหมายสูงสุด

ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้อ่านข้อความข้างต้นแล้วและได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย วิธี และขั้นตอนการวิจัย และมีความเข้าใจดีแล้ว ซึ่ง

1. ผู้วิจัยรับรองว่าจะตอบคำถามต่าง ๆ ที่ข้าพเจ้าสงสัยด้วยความเต็มใจ ไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ และหากมีข้อสงสัยระหว่างการวิจัยสามารถติดต่อผู้วิจัย คือ อาจารย์สาวิกา วราภรณ์ (อาจารย์ประจำภาควิชา ภาษาต่างประเทศ สาขาภาษาอังกฤษ คณะมนุษยศาสตร์ มหาวิทยาลัยเกษตรศาสตร์) ได้ที่อีเมล savikav@gmail.com หรือเบอร์ติดต่อ 0858791119
2. ข้าพเจ้ามีสิทธิ์ที่จะบอกเลิกการเข้าร่วมโครงการวิจัยนี้เมื่อใดก็ได้ และการบอกเลิกการเข้าร่วมการวิจัยนั้นไม่มีผลต่อคะแนนหรือเกรดของรายวิชา 01355201 ที่จะพึงได้รับต่อไป
3. ผู้วิจัยรับรองว่าจะเก็บข้อมูลเฉพาะเกี่ยวกับตัวข้าพเจ้าเป็นความลับ จะเปิดเผยได้เฉพาะในรูปที่เป็นสรุปผลการวิจัยซึ่งจะเป็นในรูปแบบนามสมมติ ส่วนการเปิดเผยข้อมูลของตัวข้าพเจ้าต่อหน่วยงานต่าง ๆ ที่เกี่ยวข้องต้องได้รับอนุญาตจากข้าพเจ้าแล้วจะกระทำได้เฉพาะกรณีจำเป็นด้วยเหตุผลทางวิชาการเท่านั้น

ข้าพเจ้าได้อ่านข้อความข้างต้นแล้ว และมีความเข้าใจดีทุกประการ และได้ลงนามในใบ  
ยินยอมนี้ เพื่อเข้าร่วมการวิจัยด้วยความสมัครใจอย่างเต็มที่

ลงนาม.....ผู้ยินยอม  
(.....)

ลงนาม.....ผู้ทำวิจัย  
(.....)



## Appendix D - Lesson Plans

### Lesson Plan for Week 9 (TU)

**Date:** 6 Mar 18

**Total time:** 75 minutes

- **Pre-Test**
- **Reflective Journal Training**

### Lesson Plan for Week 9 (Th)

**Date:** 8 Mar 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. identify strategies necessary for making predictions and inferences
2. describe and infer information from pictures
3. infer information from familiar texts

**Required Course Materials:**

- Coursebook
- A video clip entitled “Introduction to Reading Skills: Inferencing” via <https://www.youtube.com/watch?v=1oqdI5JMjN4>
- A video clip entitled “Observations and Inferences” via <https://www.youtube.com/watch?v=fB1R7taW9jk&app=desktop>
- Pictures from [https://www.theteachertreasury.com/uploads/1/2/5/7/12571349/inferences\\_without\\_captions\\_packet.pdf](https://www.theteachertreasury.com/uploads/1/2/5/7/12571349/inferences_without_captions_packet.pdf)
- PowerPoint slides

Knowledge Processes	Teaching Procedures	Time	Assessment
Experiencing the known	<ul style="list-style-type: none"> <li>• T activates Ss' background knowledge about reading strategies they need when approaching a piece of information for the first time.</li> </ul>	5 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> </ul>
	<ul style="list-style-type: none"> <li>• T shows pictures on a visualizer and asks Ss to describe what they see in the pictures.</li> </ul>	10 mins	
	<ul style="list-style-type: none"> <li>• T probe Ss into deeper thinking process using following questions:               <ol style="list-style-type: none"> <li>1. What do you think has just happened in the picture?</li> <li>2. What do you think is going to happen next?</li> <li>3. What helped you came up with the answer?</li> <li>4. What questions did you ask yourself when making predictions/ inferences?</li> <li>5. How did you know if your answer was correct?</li> </ol> </li> </ul>	20 mins	
Experiencing the new	<ul style="list-style-type: none"> <li>• T introduces the concept of making inferences and its definition using PowerPoint Slides and VDO clips.</li> </ul>	15 mins	
	<ul style="list-style-type: none"> <li>• T assigns Ss to search for</li> </ul>	25 mins	

	<p>lyrics of their favorite English songs and practice how to infer information from the song by answering following questions:</p> <ol style="list-style-type: none"> <li>1. What is the song written about?</li> <li>2. Whom do you think is the song written for?</li> <li>3. What do you think is the writer's feeling when s/he wrote the song?</li> <li>4. What do you think provoke the writer to write the song?</li> </ol>		
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### Lesson Plan for Week 10 (Tu)

**Date:** 13 Mar 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. familiarize themselves with the key principles and concepts of multimodality
2. explain what multimodality is and what the five modes of communication are
3. describe the meaning of glossary of multimodality terms

**Required Course Materials:**

- Handouts/ PowerPoint slides on the topic of multimodality
- Glossary of multimodal terms handouts/ worksheets adapted from <https://multimodalityglossary.wordpress.com/mode-2/>
- Examples of multimodal artifacts/ products/ responses to reading texts

Knowledge Processes	Teaching Procedures	Time	Assessment
Conceptualizing by Naming	<ul style="list-style-type: none"> <li>• T introduces the concept of multimodality, the key principles and the five modes of communication, as well as explain the meaning of glossary of multimodality terms.</li> </ul>	35 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> </ul>
	<ul style="list-style-type: none"> <li>• Ss do glossary worksheets.</li> </ul>	10 mins	
	<ul style="list-style-type: none"> <li>• T shows examples of multimodal artifacts/ products/ responses to reading texts.</li> </ul>	10 mins	
	<ul style="list-style-type: none"> <li>• Ss brainstorm how multimodality affect the communication landscape in the 21<sup>st</sup> century and discuss the answers with classmates and teacher.</li> </ul>	20 mins	

### Lesson Plan for Week 10 (Th)

**Date:** 15 Mar 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. generate ideas how they can integrate multimodality into the tasks assigned in the course

**Required Course Materials:**

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Knowledge Processes	Teaching Procedures	Time	Assessment
Conceptualizing by Naming	<ul style="list-style-type: none"> <li>• T asks Ss to brainstorm in groups what and how they can make use of multimodality in the tasks assigned in the reading course.</li> </ul>	15 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> </ul>
	<ul style="list-style-type: none"> <li>• Ss discuss their answers with classmates and teacher.</li> </ul>	10 mins	<ul style="list-style-type: none"> <li>• Teacher's elicitation</li> </ul>
	<ul style="list-style-type: none"> <li>• T assigns Ss to explore the way to integrate five modes of communication in expressing ideas/ thoughts simultaneously and present the ideas to the class.</li> </ul>	50 mins	<ul style="list-style-type: none"> <li>• Teacher's feedback</li> <li>• Peer's feedback</li> </ul>

### Lesson Plan for Week 11 (Tu)

<p><b>Date:</b> 20 Mar 18</p> <p><b>Total time:</b> 75 minutes</p> <p><b>Objectives:</b> By the end of this period, students will be able to</p> <ol style="list-style-type: none"> <li>1. generalize the concept of multimodality into the reading course</li> <li>2. integrate multimodality in the tasks/ activities assigned in this course</li> </ol> <p><b>Required Course Materials:</b></p> <ul style="list-style-type: none"> <li>• Coursebook</li> </ul>
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Knowledge Processes	Teaching Procedures	Time	Assessment
Conceptualizing by Theorizing	<ul style="list-style-type: none"> <li>• T selects one text from the coursebook and use it as a model text to find the gist.</li> </ul>	10 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's</li> </ul>

	<ul style="list-style-type: none"> <li>• T assigns Ss to skim and scan other texts in the coursebook in order to identify key words/ themes/ gists.</li> </ul>	20 mins	elicitation
	<ul style="list-style-type: none"> <li>• Ss discuss the answers with classmates and teacher.</li> </ul>	15 mins	
	<ul style="list-style-type: none"> <li>• T assigns Ss a class activity in order to practice the use of multimodality by asking the Ss to select one text from the coursebook and transfer the knowledge/ simplify the information/ into a picture book just to make it easier to understand for young children.</li> </ul>	30 mins	

### Lesson Plan for Week 11 (Th)

**Date:** 22 Mar 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. extend the concept of multimodality into practice
2. transfer the ideas gained from the text using other modes of communication
3. explain how they integrate multimodality into the assignment

**Required Course Materials:**

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Knowledge Processes	Teaching Procedures	Time	Assessment
Conceptualizing by Theorizing	<ul style="list-style-type: none"> <li>Ss present their picture books by summarizing the main idea they gain from the text and explain how they transfer the idea into the picture book using multimodality and receive feedbacks from their classmates and teacher.</li> </ul>	75 mins	<ul style="list-style-type: none"> <li>Teacher's monitoring</li> <li>Teacher's elicitation</li> <li>Teacher's feedback</li> <li>Peer's feedback</li> </ul>

### Lesson Plan for Week 12 (Tu)

**Date:** 27 Mar 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. define the meanings of unknown words using context clues
2. summarize the main ideas

**Required Course Materials:**

- Coursebook

Knowledge Processes	Teaching Procedures	Time	Assessment
Analyzing Functionally	<ul style="list-style-type: none"> <li>T assigns Ss to preview a text using skimming and scanning techniques from the coursebook and asks Ss what predictions they can make based on what they already know about the topic.</li> </ul>	10 mins	
	<ul style="list-style-type: none"> <li>Using the same text, T asks</li> </ul>	10 mins	

	<p>Ss about the meaning of some key vocabularies in the text and demonstrates how Ss can guess the meaning of the unknown words using context clues.</p> <ul style="list-style-type: none"> <li>• Ss read other texts in the coursebook and practice guessing the meaning from context clues.</li> <li>• T selects one text and demonstrate how to find the main idea.</li> <li>• Ss read other texts in the coursebook and practice finding the main idea.</li> <li>• T elicits Ss comprehension and checks their understandings using the following comprehension monitoring questions:             <ol style="list-style-type: none"> <li>1. What are the important ideas or events that occurred in the text?</li> <li>2. What is the main idea and supporting details?.</li> </ol> </li> </ul>	<p>10 mins</p> <p>10 mins</p> <p>20 mins</p> <p>15 mins</p>	
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### Lesson Plan for Week 12 (Th)

**Date:** 29 Mar 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to:

1. recognize the word selection, context, and structure of a text that provide clues to inferences
2. identify the author's purpose(s)/ intention of writing
3. make inferences based on their background knowledge/ experiences and clues from a text
4. share ideas and participate in a classroom discussion about the topic of a text
5. discuss the topic presented in a text from an alternative perspective

**Required Course Materials:**

- Coursebook

Knowledge Processes	Teaching Procedures	Time	Assessment
Analyzing Critically	<ul style="list-style-type: none"> <li>• T shows a list of critical reading questions on a visualizer projector:               <ol style="list-style-type: none"> <li>1. Who might the author be?</li> <li>2. Who would be the target reader?</li> <li>3. What is the tone of the author?</li> <li>4. What is the author's intention/ purpose in writing the text?</li> </ol> </li> </ul>	5 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>

	<p>5. Whose voices could have been missed in the text?</p> <p>6. After thinking about what has happened in the text and your thoughts about it, are there other ways a reader might think about what happened?</p> <p>7. What are the author's ideas/ facts or his/her opinions about the topic?</p> <p>8. Do you agree or disagree with ideas in the text?</p> <p>9. What is the author's point of view?</p> <ul style="list-style-type: none"> <li>• Selecting one text from the coursebook as a model, T models how to use information from the text combined with background knowledge/ experience to make predictions/ inferences in order to answer the inferential questions.</li> <li>• Ss independently practice how to use information from the text combined with background knowledge to make inferences in order to answer the questions.</li> </ul>	<p>20 mins</p> <p>50 mins</p>	
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### Lesson Plan for Week 13 (Tu)

**Date:** 3 Apr 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. make a prediction, interpret information, and/ or draw a conclusion, based on an text
2. share ideas and participate in a classroom discussion about the topic presented in a text

**Required Course Materials:**

- Coursebook

Knowledge Processes	Teaching Procedures	Time	Assessment
Analyzing Critically	<ul style="list-style-type: none"> <li>• T reviews the lesson of the previous period by thinking aloud about how Ss can use background knowledge on the topic to make predictions based on a text.</li> </ul>	10 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>
	<ul style="list-style-type: none"> <li>• Ss read other texts in the coursebook and continue to independently practice how to use information from the text combined with background knowledge to make inferences.</li> </ul>	40 mins	
	<ul style="list-style-type: none"> <li>• T asks Ss to share inferences they come up and encourages Ss to articulate how inferences help them understand the text.</li> </ul>	25 mins	

### Lesson Plan for Week 13 (Th)

**Date:** 5 Apr 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. apply comprehension monitoring and critical reading strategies to answer comprehension and inferential questions

**Required Course Materials:**

- Coursebook
- Multimodal task I instructions

Knowledge Processes	Teaching Procedures	Time	Assessment
Applying Appropriately	<ul style="list-style-type: none"> <li>• Ss do reading exercises in the coursebook.</li> <li>• T discusses with Ss the answers.</li> </ul>	40 mins  20 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>
Applying Creatively	<ul style="list-style-type: none"> <li>• T assigns multimodal task I and explains the task objective and evaluation criteria to Ss.</li> </ul> <p><u>Instructions:</u> Choose one text from the list given and create multimodal product/artifact to summarize the author's purpose/ intention in writing the text and present different aspects the author should have thought about/ considered in writing the text.</p>	15 mins	



### Lesson Plan for Week 14 (Tu)

**Date:** 10 Apr 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to:

1. creatively express insights and/ or respond to a text and/ or reflect reading experiences through multimodality
2. use multimodal modes to convey and enhance meaning successfully
3. transfer and apply information based on a text to make a prediction, interpret information, and/ or draw a conclusion meaningfully

**Required Course Materials:**

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Knowledge Processes	Teaching Procedures	Time	Assessment
Applying Creatively	<ul style="list-style-type: none"> <li>• Ss present their multimodal task I to the class and receive feedback from their peers and teacher.</li> </ul>	75 mins	<ul style="list-style-type: none"> <li>• Teacher's feedback</li> <li>• Peer's feedback</li> </ul>

### Lesson Plan for Week 14 (Th)

**Date:** 12 Apr 18

**NO class - Songkran's day**

### Lesson Plan for Week 15 (Tu)

**Date:** 17 Apr 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. define the meanings of words in the short stories using context clues
2. identify the major events/ ideas of a short story
3. analyze a short story's elements
4. summarize the plot, setting and characters of a short story

**Required Course Materials:**

- Coursebook

Knowledge Processes	Teaching Procedures	Time	Assessment
Analyzing Functionally	<ul style="list-style-type: none"> <li>• T asks Ss to preview a short story in the coursebook using skimming and scanning techniques.</li> </ul>	10 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>
	<ul style="list-style-type: none"> <li>• T leads a discussion about how to identify parts of the text (beginning/series of events/ending) and asks Ss how they identify these parts.</li> </ul>	10 mins	
	<ul style="list-style-type: none"> <li>• T asks Ss about the meaning of some key vocabularies in the short story and demonstrates how they can infer the meaning of the unknown words using context clues.</li> </ul>	15 mins	

	<ul style="list-style-type: none"><li>• Ss read other short stories in the coursebook and practice finding the main idea, major, and minor details of the stories.</li><li>• T elicits Ss comprehension and checks their understandings of a short story by asking them to summarize what happens in the story at the beginning, middle, and end, as well as using the following comprehension monitoring questions:<ol style="list-style-type: none"><li>1. What is the story about?</li><li>2. What kind of story is this?</li><li>3. How many characters are there in the story? And who are they?</li><li>4. Where did this story take place?</li><li>5. What happened in the story?.</li></ol></li></ul>	20 mins	
		15 mins	

### Lesson Plan for Week 15 (Th)

**Date:** 19 Apr 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. recognize the word selection, context, and structure of a short story that provide clues to inferences
2. identify the cause(s) of events or characters actions in a short story
3. connect their own experiences with facts, characters and situations to a short story
4. make inferences based on background knowledge and clues from a short story
5. share ideas and participate in a classroom discussion about the stories' elements

**Required Course Materials:**

- Coursebook

Knowledge Processes	Teaching Procedures	Time	Assessment
Analyzing Critically	<ul style="list-style-type: none"> <li>• T select one short story from the coursebook as a model and asks Ss to develop further questions about the plot, the setting, and characters from the short stories using Wh-question words such as who, what, when, where, why, and how such as:               <ol style="list-style-type: none"> <li>1. What kind of person is</li> </ol> </li> </ul>	15 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>

	<p>the character in the short story?</p> <p>2. What clues from the short story help you know that?</p> <p>3. What do you predict will happen next in the story based on what you already know?</p> <p>4. Why do you think that?/ What makes you think that?.</p> <p>5. What do you think will happen at the end of the story?</p> <p>6. How does the character feel in this story? How do you know?</p> <p>7. Why do you think a character is acting the way he/she is acting?.</p> <p>• T selects some questions and models how to use information from the short stories combined with background knowledge to make inference using oral responses such as:</p> <p>1. I think____ is probably true because....”</p> <p>2. Maybe it means____. I think this because....”</p> <p>3. I predict____. I think this because.”</p> <p>• Ss practice how to use information from the text</p>	<p>10 mins</p> <p>50 mins</p>	
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	combined with background knowledge to make inferences and share their answers with their classmates.		
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### Lesson Plan for Week 16 (Tu)

<p><b>Date:</b> 24 Apr 18</p> <p><b>Total time:</b> 75 minutes</p> <p><b>Objectives:</b> By the end of this period, students will be able to</p> <ol style="list-style-type: none"> <li>1. make a prediction, interpret information, and/ or draw a conclusion, based on a short story</li> <li>2. share ideas and participate in a classroom discussion about the stories' elements</li> </ol> <p><b>Required Course Materials:</b></p> <ul style="list-style-type: none"> <li>• Coursebook</li> </ul>
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Knowledge Processes	Teaching Procedures	Time	Assessment
Analyzing Critically	<ul style="list-style-type: none"> <li>• T reviews the lesson of the previous period by thinking aloud about how Ss can use background knowledge on the topic to make predictions based on a short story.</li> <li>• Ss read other short stories in the coursebook and continue to independently practice how to use information from the text combined with background</li> </ul>	<p>15 mins</p> <p>40 mins</p>	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>

	knowledge to make inferences. • T asks Ss to share predictions they come up and encourages them to articulate how making predictions help them understand the short story.	20 mins	
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### Lesson Plan for Week 16 (Th)

<p><b>Date:</b> 26 Apr 18</p> <p><b>Total time:</b> 75 minutes</p> <p><b>Objectives:</b> By the end of this period, students will be able to:</p> <p>1. apply comprehension monitoring and critical reading strategies to answer comprehension and inferential questions</p> <p><b>Required Course Materials:</b></p> <ul style="list-style-type: none"> <li>• Coursebook</li> <li>• Multimodal task II instructions</li> </ul>
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Knowledge Processes	Teaching Procedures	Time	Assessment
Applying Appropriately	<ul style="list-style-type: none"> <li>• Ss do reading exercises in the coursebook.</li> <li>• T discusses with Ss the answers.</li> </ul>	40 mins  20 mins	<ul style="list-style-type: none"> <li>• Teacher's monitoring</li> <li>• Teacher's elicitation</li> <li>• Teacher's feedback</li> </ul>
Applying Creatively	<ul style="list-style-type: none"> <li>• T assigns multimodal task II and explains the task objective and evaluation criteria to Ss.</li> </ul> <p><u>Instructions:</u> Choose one short</p>	15 mins	

	<p>story from the list and create multimodal product/artifact to narrate the story and describe what kind of person the character(s) is/ are and what you have learned about them from their actions. Present your multimodal product/ artifact along with evidence from the story and your experiences that has led you to the inferences.</p>		
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### Lesson Plan for Week 17 (Tu)

**Date:** 1 May 18

**Total time:** 75 minutes

**Objectives:** By the end of this period, students will be able to

1. creatively express insights and/ or respond to a short story and/ or reflect reading experiences through multimodality
2. use multimodal modes to convey and enhance meaning successfully
3. transfer and apply information based on a short story to make a prediction, interpret information, and/ or draw a conclusion meaningfully

**Required Course Materials:**

-

Knowledge Processes	Teaching Procedures	Time	Assessment
Applying Creatively	<ul style="list-style-type: none"> <li>• Ss present their multimodal task II to the class and receive feedback from their peers and</li> </ul>	75 mins	<ul style="list-style-type: none"> <li>• Teacher's feedback</li> <li>• Peer's</li> </ul>



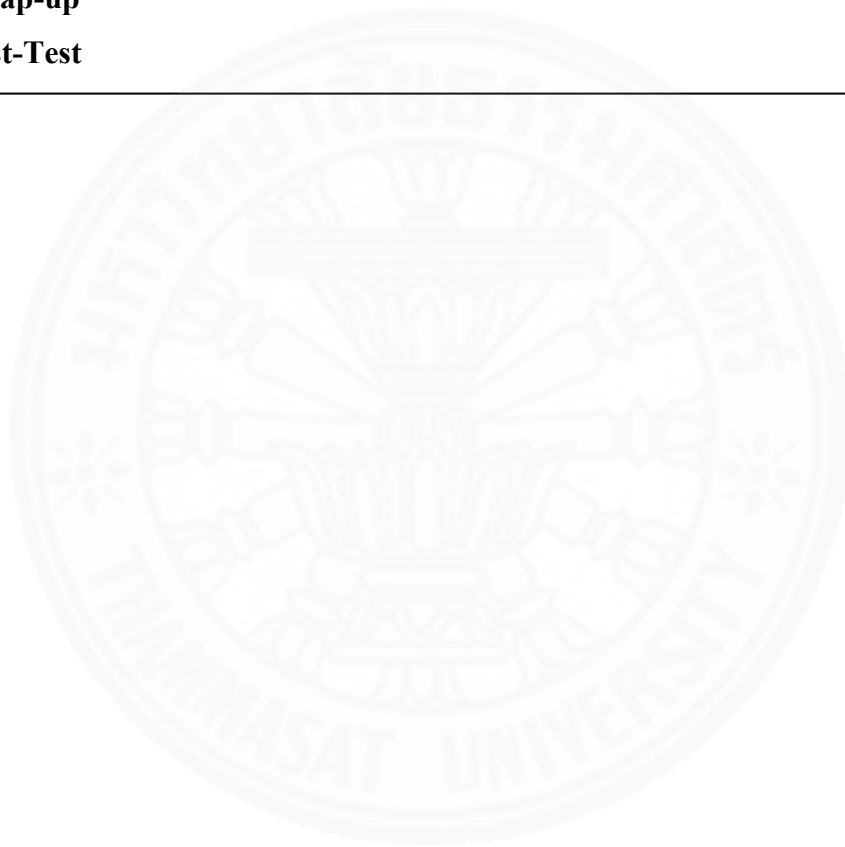
	teacher.		feedback
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### Lesson Plan for Week 17 (Th)

**Date:** 3 May 18

**Total time:** 75 minutes

- **Wrap-up**
- **Post-Test**



### Appendix E - The Validation Form of the Lesson Plans

Please mark  $\surd$  to give your comment on each statement.

-1 = revised      0 = average      1 = good

	-1	0	1	Comments/
<b>I. How well is the framework translated into lesson plans?</b>				
1. The knowledge processes are appropriately converted to the teaching procedures.				
2. The learning objectives are relevant to the knowledge processes of the framework.				
<b>II. How appropriate are the lesson plans written?</b>				
3. The learning objectives are realistic, appropriate, and clear.				
4. The teaching procedures are relevant to the learning objectives.				
5. Time is appropriately allocated to each stage.				
6. Required course materials are clearly indicated in each lesson plan.				
7. The teaching procedures help students develop critical reading ability.				
8. The teaching procedures prepare students for multimodal tasks.				
9. The teaching procedures are in logical sequence.				
<b>III. How appropriate are the multimodal tasks designed?</b>				
10. The multimodal tasks are practical and achievable.				
11. The multimodal tasks are designed based on the instructional goal and rationale of critical reading.				
12. The multimodal tasks enhance the development of critical reading ability.				
13. The multimodal tasks are suitable for students'				

level.				
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	-1	0	1	Comments/
<b>IV. How appropriate are the worksheets/ handouts designed?</b>				
14. Worksheets are clear and appropriate.				
15. Worksheets are suitable for students' level.				

**Other Comments/ Suggestions:**

.....

.....

.....

**Evaluated by**

\_\_\_\_\_

( )

### Appendix F - The Validation Result of the Lesson Plans

	Expert 1	Expert 2	Expert 3	Sum
<b>I. How well is the framework translated into lesson plans?</b>				
1. The knowledge processes are appropriately converted to the teaching procedures.	0	1	1	0.66
2. The learning objectives are relevant to the knowledge processes of the framework.	0	1	1	0.66
<b>II. How appropriate are the lesson plans written?</b>				
3. The learning objectives are realistic, appropriate, and clear.	0	1	1	0.66
4. The teaching procedures are relevant to the learning objectives.	1	1	1	1
5. Time is appropriately allocated to each stage.	1	1	0	0.66
6. Required course materials are clearly indicated in each lesson plan.	1	1	1	1
7. The teaching procedures help students develop critical reading ability.	1	1	1	1
8. The teaching procedures prepare students for multimodal tasks.	1	1	1	1
9. The teaching procedures are in logical sequence.	1	0	1	0.66
<b>III. How appropriate are the multimodal tasks designed?</b>				
10. The multimodal tasks are practical and achievable.	1	1	1	1
11. The multimodal tasks are designed based on the instructional goal and rationale of critical reading.	1	1	1	1
12. The multimodal tasks enhance the development of critical reading ability.	1	1	1	1
13. The multimodal tasks are suitable for students' level.	1	1	1	1

<b>IV. How appropriate are the worksheets/ handouts designed?</b>				
14. Worksheets are clear and appropriate.	1	1	1	1
15. Worksheets are suitable for students' level.	1	1	1	1

**Comments**

-



## Appendix G - Rubrics

### (Multimodal Tasks)

Dimension	Excellent (4)	Good (3)	Average (2)	Poor (1)
<p><b>(1) Inferences</b> <i>Students are able to use information given in the text to draw inferences and/ or form conclusions about the text effectively.</i></p>	- Students show great success in drawing logical inferences and/ or conclusions that relate to the text.	- Students show success in drawing general inferences and/ or conclusions with adequate connections from the text.	- Students show some attempts to draw inferences and/ or form conclusions with relatively vague connections from the text.	- Students show failure in drawing inferences and/ or conclusions about the text by providing information that is off-topic.
<p><b>(2) Evidence of Thoughts</b> <i>Students are able to deliberately express their own thoughts and/ or voices about the text.</i></p>	- Inferences and/ or conclusions are clearly made and reflect a great deal of originality.	- Inferences and/ or conclusions are made and reflect some originality.	- Inferences and/ or conclusions made are basic and do not reflect originality.	- Inferences and/ or conclusions are rarely made and do not present evidence of originality.
<p><b>(3) Delivery</b> <i>Students are able to effectively present their ideas through a well design of multimodal modes.</i></p>	- Students are able to present their ideas through a well design of multimodal modes effectively.	- Students are able to present their ideas through a simple design of multimodal modes.	- Students are poorly able to present their intended ideas through multimodal modes.	- Students fail to present their intended ideas through multimodal modes.

<p><b>(4) Use of Multimodality</b> <i>Students are able to combine a variety of multimodal modes for optimum effect and flow</i></p>	<p>- Various multimodal modes are combined and lead to an optimum effect and flow.</p>	<p>- Multimodal modes are appropriately combined but partially lead to an enhanced effect and flow.</p>	<p>- Multimodal modes are combined but rarely lead to an enhanced effect and flow.</p>	<p>- Multimodal modes are poorly combined and do not lead to an enhanced effect and flow.</p>
<p><b>(5) Knowledge Application</b> <i>Students are able to transfer and apply knowledge and concepts from the text to a real world scenario and vice versa.</i></p>	<p>- Students show a remarkable application of knowledge and concepts from the text to a real world scenario and vice versa.</p>	<p>- Students show a good application of knowledge and concepts from the text to a real world scenario and vice versa.</p>	<p>- Students show a basic application of knowledge and concepts from the text to a real world scenario and vice versa.</p>	<p>- Students show a poor application of knowledge and concepts from the text to a real world scenario and vice versa.</p>

**(Traditional Tasks)**

<b>Dimension</b>	<b>Excellent (4)</b>	<b>Good (3)</b>	<b>Average (2)</b>	<b>Poor (1)</b>
<p><b>(1) Inferences</b>  <i>Students are able to use information given in the text to draw inferences and/ or form conclusions about the text effectively.</i></p>	<p>- Students show great success in drawing logical inferences and/ or conclusions that relate to the text.</p>	<p>- Students show success in drawing general inferences and/ or conclusions with adequate connections from the text.</p>	<p>- Students show some attempts to draw inferences and/ or form conclusions with relatively vague connections from the text.</p>	<p>- Students show failure in drawing inferences and/ or conclusions about the text by providing information that is off-topic.</p>
<p><b>(2) Evidence of Thoughts</b>  <i>Students are able to deliberately express their own thoughts and/ or voices about the text.</i></p>	<p>- Inferences and/ or conclusions are clearly made and reflect a great deal of originality.</p>	<p>- Inferences and/ or conclusions are made and reflect some originality.</p>	<p>- Inferences and/ or conclusions made are basic and do not reflect originality.</p>	<p>- Inferences and/ or conclusions are rarely made and do not present evidence of originality.</p>
<p><b>(3) Delivery</b>  <i>Students are able to present ideas and elaborate details in a linguistically organized way.</i></p>	<p>- Students are able to present their ideas through words effectively so the ideas are easy to follow.</p>	<p>- Students are able to present their ideas through words quite well so the intended ideas are achieved.</p>	<p>- Students are struggle to present their ideas through words for the most part but the intended ideas can still be recognized.</p>	<p>- Students are poorly presented their ideas through words so the intended ideas are not achieved.</p>



<p><b>(4) Mechanics</b> <i>Students are able to write a well-constructed sentence structure with a clear and precise use of language.</i></p>	<ul style="list-style-type: none"> <li>- The sentences are well constructed and contain no errors in grammar, mechanics, and spelling.</li> <li>- The use of language is clear and precise so ideas are communicated successfully.</li> </ul>	<ul style="list-style-type: none"> <li>- The sentences contain few errors in grammar, mechanics, and spelling that do not interfere with understanding.</li> <li>- The use of language is good so ideas are communicated well.</li> </ul>	<ul style="list-style-type: none"> <li>- The sentences contain several errors in grammar, mechanics, and spelling that interfere with understanding.</li> <li>- The use of language is unclear so ideas are difficult to understand.</li> </ul>	<ul style="list-style-type: none"> <li>- The sentences are poorly constructed and contain numerous errors in grammar, mechanics, and spelling.</li> <li>- The use of language is poor so ideas are lost.</li> </ul>
<p><b>(5) Knowledge Application</b> <i>Students are able to transfer and apply knowledge and concepts from the text to a real world scenario and vice versa.</i></p>	<ul style="list-style-type: none"> <li>- Students show a remarkable application of knowledge and concepts from the text to a real world scenario and vice versa.</li> </ul>	<ul style="list-style-type: none"> <li>- Students show a good application of knowledge and concepts from the text to a real world scenario and vice versa.</li> </ul>	<ul style="list-style-type: none"> <li>- Students show a basic application of knowledge and concepts from the text to a real world scenario and vice versa.</li> </ul>	<ul style="list-style-type: none"> <li>- Students show a poor application of knowledge and concepts from the text to a real world scenario and vice versa.</li> </ul>

### Appendix H - The Validation Form of the Rubrics

**Directions:** Please read carefully through the evaluation criteria for multimodal tasks in this form. Kindly indicate the degree to which each item is congruent with the objectives of the task. If you have any comments on the congruence of each evaluation criteria, please record them in the space provided. Please tick (✓) to rate the congruence according to the scale below.

-1 = certain that the item is NOT congruent with the objective of the task

0 = uncertain that the item is congruent with the objective of the task

+1 = certain that the item is congruent with the objective of the task

	-1	0	+1	Comments
1. Is dimension (1) “Inferences” suitable for assessing students’ ability to make a prediction, interpret information, and/ or draw a conclusion, based on the text?				
2. Is dimension (2) “Evidence of Thoughts” suitable for assessing students’ in-depth understanding of a text?				
3. Is dimension (3) “Delivery” suitable for assessing the effectiveness of students’ overall expression of ideas through multimodal modes?				
4. Is dimension (4) “Use of Multimodality” suitable for assessing the effectiveness of students’ use of multimodal modes?				
5. Is dimension (5) “Knowledge Application” suitable for assessing students’ ability of transferring knowledge and/or concepts of a text to a new situation or real life/ out of class scenario?				

Are the evaluation criteria of both experimental group and control group equivalent in assessing students' performances in completing critical reading tasks?

Yes

No



### Appendix I - The Validation Results of the Rubrics

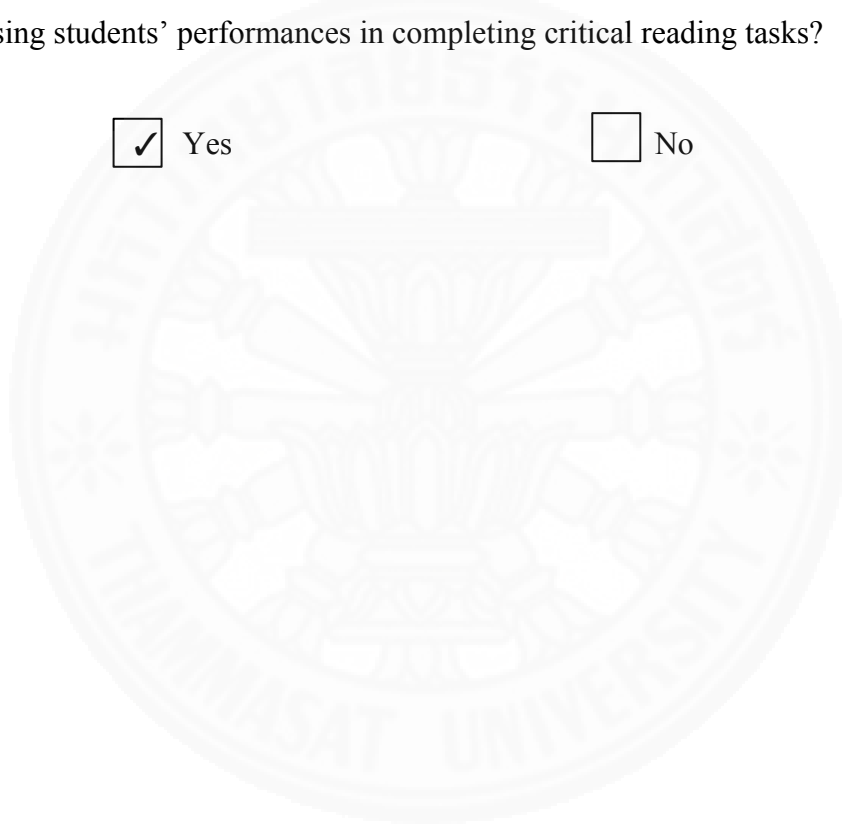
	Expert 1	Expert 2	Expert 3	Sum
1. Is dimension (1) “Inferences” suitable for assessing students’ ability to make a prediction, interpret information, and/ or draw a conclusion, based on the text?	1	1	0	0.66
	<b>Comments</b> - Some adjustment should be made to make it a little more specific about the criteria.			
2. Is dimension (2) “Evidence of Thoughts” suitable for assessing students’ in-depth understanding of a text?	1	1	1	1
	<b>Comments</b> - The descriptions for “excellent” and “good” are quite close. Some adjustment would make it rater-friendly.			
3. Is dimension (3) “Delivery” suitable for assessing the effectiveness of students’ overall expression of ideas through multimodal modes?	1	1	1	1
	<b>Comments -</b>			
4. Is dimension (4) “Use of Multimodality” suitable for assessing the effectiveness of students’ use of multimodal modes?	1	1	1	1
	<b>Comments -</b>			
5. Is dimension (5) “Knowledge	1	1	1	1

Application” suitable for assessing students’ ability of transferring knowledge and/or concepts of a text to a new situation or real life/ out of class scenario?				
	<b>Comments -</b>			

Are the evaluation criteria of both experimental group and control group equivalent in assessing students’ performances in completing critical reading tasks?

Yes

No



**Appendix J - Critical Reading Test**

**Read the text carefully and answer the questions 1-5.**

It seems to me that nothing of any importance is happening at Fit Wow, Inc. The company has just come out with a new sports watch that can monitor your heart rate and calculate calories burned. It's called "The Booster" and its slogan is "The Booster, the best calories burner watch." However, the truth is that the Booster is always neither accurate nor precise. I believe Fit wow wasted their two years designing the Booster. And if you are foolish enough to buy a Booster, it's my opinion that they'll be wasting yours, too.

1. What is the purpose of the text?
  - a. To inform the reader of Fit Wow, Inc.
  - b. To comment on the design of the Booster
  - c. To persuade the readers not to buy the Booster
  - d. To blame people for buying the Booster
2. How does the author feel about product?
  - a. Negative
  - b. Neutral
  - c. Positive
  - d. Mixed
3. From the text, it can be best inferred that \_\_\_\_\_.
  - a. the author thinks the Booster helps burn calories
  - b. the author works for Fit Wow, Inc.
  - c. the author wants to discredit the Booster
  - d. the author does not like the design of the Booster
4. Based on the text, the author thinks that the Booster is \_\_\_\_\_.
  - a. the best sports watch
  - b. for stupid people
  - c. a waste of money
  - d. good for burning calories
5. The text would most likely to be identified as \_\_\_\_\_.

- a. an advertisement
- b. a complaint to Fit Wow
- c. a product review
- d. a user manual

**Read the text carefully and answer the questions 6-9.**

Your brain can do so many more things than you could have imagined. So, if our brain is that much powerful, why aren't we all good at everything? Why are some of us forgetful? Well, this is because the brain differs from person to person. The development of our brain is based on how we learned when we were kids. However, this doesn't mean you cannot improve a mental ability. It's wrong to think that there's no point in trying to improve it just because you're not naturally gifted at something like doing math or reading. Your brain is as much as similar to any muscle in your body in a way that exercise can raise its ability. You can always keep practicing and expand your current brain potency.

6. Which of the following can be inferred about the brain?
- a. Our brain is so amazing that we can remember everything.
  - b. We cannot be good at everything unless we are gifted.
  - c. Education plays an important role in brain development.
  - d. Our brain can be improved if the body muscle is developed.
7. Which of the following CANNOT be inferred from the text?
- a. Gifted people have a powerful brain.
  - b. Exercises like swimming or running are good for our brain.
  - c. Mental ability can be strengthened.
  - d. People sometimes underestimate the brain capacity.

8. Why does the author mention “muscle in your body” in the text?
- To show that body and brain are related
  - To give a clearer picture of the brain’s functions
  - To inform that brains can be improved
  - To give an example of the muscle in our brain
9. What does the author try to tell the readers?
- We must admit that our brain is weaker when we are young.
  - We should develop our brain to be smart like gifted people.
  - We must imagine our brain can do everything.
  - We should never stop learning new things.

**Read the text carefully and answer the questions 10-13.**

Steve Jobs was the most innovative leader of our time. He gave a little secret of success that anyone can use. That is “do what you love”. Simply, it means you must follow what your heart tells you to do. Steve Jobs once told a group of employees, “People with passion can change the world for the better. It’s very difficult to come up with new and creative ideas unless you are passionate. Passion is like a fuel for a rocket. Passion is happening only when you actually love what you are doing.”

However, if you ask me, I think one of the worst pieces of career advice is “to do what you love.”

Here’s some of my practical advice: Do not do what you love; do what you are. It’s how I chose my career. I bought the book with that title and it is my favorite career book of all time. The book gave me a list of my strengths, and a list of jobs where I would likely succeed in based on those strengths. It’s a myth mostly propagated by people who tell you to do what you love. Doing what you love will make you feel fulfilled, but you may not get paid for it. So if you are overwhelmed with the task of “doing what you



love”, you should recognize that you are totally normal. I recommend you forget it and just start doing something that suits your strengths.

10. Based on the text, what is Steve Jobs’ opinion about passion?
- All employees must have passion to create new products.
  - New ideas can emerge easily without passion.
  - Rockets need fuel to take off.
  - Passion is important for success.
11. What does the author suggest us to do?
- To find a career advisor
  - To get a job
  - To do what you are good at
  - To build strengths
12. What does the sentence “So if you are overwhelmed...you are totally normal” mean?
- Many people are more special than others.
  - Many people know that they are wrong.
  - Many people do not love their jobs.
  - Many people face the same situation.
13. What can you infer from the text?
- We must choose a career that fits our personality.
  - Steve Jobs was lying.
  - The author feels passionate about his work.
  - People should read books.

**Read the text carefully and answer the questions 14-17.**

Not every one accepted the idea that chronic disease was a by-product of Western lifestyles and that the industrialization of our food was damaging our health. And this is such a tragic. One objection to the theory was genetic. That is to say, different races were apt to be susceptible to different diseases. For example, white people were disposed to heart attacks and brown people were disposed to things like leprosy.

However, those who think so might have forgotten to explain why blacks living in America also suffered from the same chronic diseases as whites living there. Simply by moving to places like America, it turned out that immigrants from nations with low rates of chronic diseases quickly obtain them.

The other objection, one you sometimes still hear, was demographic. That is, the reason we see so much chronic disease in the West is because these are illnesses that appear relatively late in life. With the medical development, people are simply living long enough to get them.

In this view, chronic disease is an inevitable price of a long life. Cancer and heart disease and so many of the other Western diseases are by now such an accepted part of modern life. Sadly, this makes some of us ignore to take a good care of our health and dietary.

14. What is the author's main purpose in writing the text?
- To blame people's lifestyle for causing chronic diseases
  - To argue against the idea of Western diseases
  - To inform that chronic diseases are a result of people's lifestyles
  - To show the relationship between lifestyle and chronic diseases

15. What can be inferred from the text?
- a. Chronic diseases can be easily obtained if you move to a new place.
  - b. Diseases are transmitted from ancestors' bloodlines to offspring.
  - c. The medical development makes people ignorant of their health
  - d. Good dietary can prevent all kinds of diseases.
16. What can be inferred about the Western lifestyle?
- a. It makes people more active.
  - b. It is a by-product of long lives.
  - c. It can cure heart attacks.
  - d. It is unhealthy.
17. Why people in the twentieth century are at more risk of chronic diseases?
- a. They are careless about what they eat.
  - b. They are moving to Western countries.
  - c. They die at young ages.
  - d. They have weak genetic traits.

**Read the text carefully and answer the questions 18-22.**

Jenny waited until the man had entered into the door, and then, after glancing up and down the street to make sure no one was keeping an eye on her, she went inside after him. Her instructions were not to let him out of her sight, and she had spent the whole day following him all over city. She was not tired but she had not eaten for hour and could not help thinking that a cup of coffee would go down well just now.

She selected a table right behind him to sit at, and congratulated herself on her choice when, almost immediately, he made a phone call and started speaking to someone. She could hear every word he said, and unobtrusively took out her notebook to jot down what she could.

“OK, what’s the news, Jack? ... The next cargo is arriving Friday? Well, that’s good ... No, the boys and me will be ready ... Usual place, then ... No problem about the cash? ... Well, as long as you are sure ...”

As she scribbled furiously in her notebook, she wondered how on earth he had got himself involved in all this. He had nice hair, she thought. His sunglasses were pushed up above his forehead, and he was wearing a well-cut blazer with jeans. He seemed like the kind of man who, under different circumstances, she might ... She sighed, and told herself firmly not to be silly. This was a job, after all, and the probability was that he would end up in prison.

Her pen ran out, and as she turned away from him to delve in her bag for another, he swiveled silently round his chair and gave her a long, critical look. By the time she turned towards him again, he was back in his original position, finishing his conversation and making another call, as if he were completely unaware of her presence. For a moment she relaxed back in her seat, letting her mind run over the events of the day while she sipped her latte. She did not notice two large strangers in dark suits enter the place, until they approached her table and one of them put a beefy hand on her arm.

18. What is Jenny’s job?

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19. In your opinion, what is she trying to find out?

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20. Based on the story, do you think the man is rich? Why?

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21. What is the location of the story?

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22. What will happen next in the story?

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**Read the text carefully and answer the questions 23-27.**

A: Is this the kind of thing you're looking for?

B: It's difficult to tell cause she's got very clear ideas about what she likes.

A: How about a nice little one over here?

B: Hmm, you'd think I'd know by now, but every year I have the same problem! These do look nice, but they look a bit old-fashioned.

A: Then what about these? They're classy.

B: No, no. She's not the classic type. Something more up-to-date ... like those over there.

A: These? Are you sure? Colours like these usually appeal to ... to younger women.

B: She's fond of colour. Always has been. Says I'm so dull in my suits. So... I'll take those.

A: Shall I gift wrap them for you?

B: No, that's not necessary. I'll just put the box in my pocket.

23. Where are these people?

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24. What is B looking for?

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25. What can you tell about A?

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26. What can you tell about B?

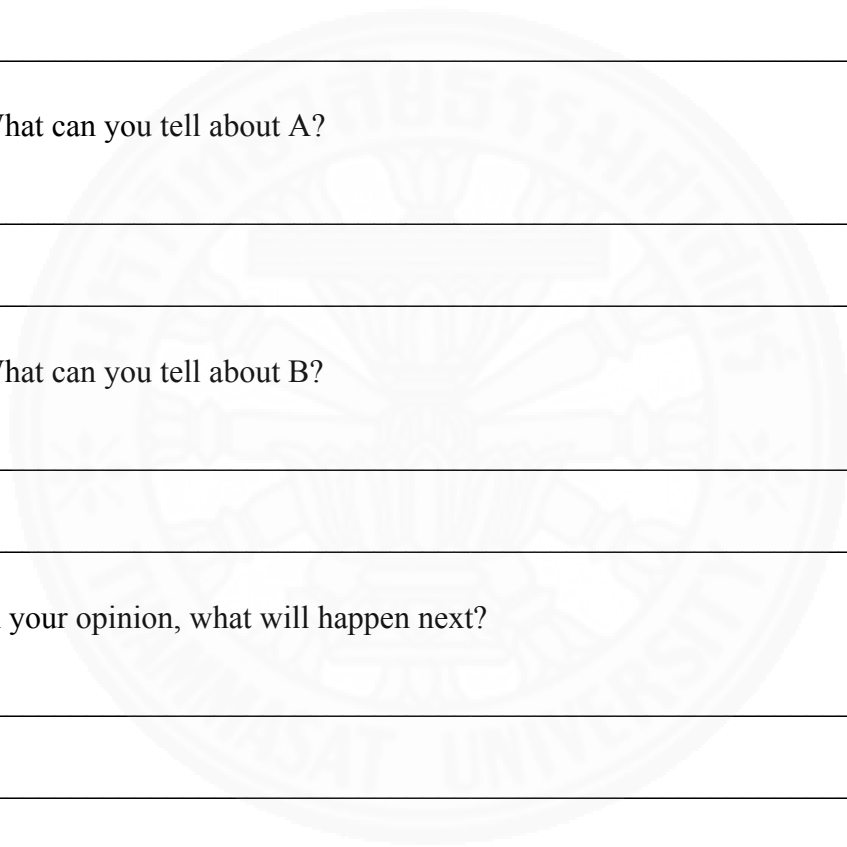
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27. In your opinion, what will happen next?

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**Read the text carefully and answer the questions 28-30.**

A new study predicts that snakes will disappear in many areas as a result of climate change. In the study, scientists looked at 17 species of snake populations in a variety of habitats on three tropical areas. They reported that there were fewer snakes in 11 species, while 5 remained the same, and only 1 showed a very small increase. The scientists believed that snake populations are declining globally as they cannot stand too much heat, and that this will have wider consequences because snakes are vital predators in many habitats, including rice fields.

28. What do you think will happen when the number of snakes decline? Why?

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29. Based on the text, how the climate has changed?

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30. Is the phrase “wider consequences” positive or negative?

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**-- THE END --**

## Appendix K - The Validation Form for the Critical Reading Test

### Guidelines for Validation

Please put a tick [✓] in the rating box (1, 0, -1) the score to which the items appropriate according to your opinion. Please also specify comments or suggestions for each item.

-1	means	incongruent
0	means	questionable or unclear
1	means	incongruent

<b>Question no.1</b>				
Items	-1	0	1	Comments/ Suggestions
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.2</b>				
Items	1	0	-1	Comments/ Suggestions
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.3</b>				
Items	1	0	-1	Comments/ Suggestions
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				



<b>Question no.4</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.5</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.6</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.7</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.8</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.9</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.10</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.11</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.12</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.13</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.14</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.15</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.16</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.17</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.18</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.19</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.20</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.21</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.22</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.23</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.24</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.25</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.26</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.27</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.28</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.29</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

<b>Question no.30</b>				
<b>Items</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>Comments/ Suggestions</b>
1. The question is appropriate for assessing the ability to make inferences.				
2. The language used in the question is appropriate for undergraduate students.				

**Evaluated by**

( \_\_\_\_\_ )

### Appendix L - The Validation Result of the Critical Reading Test

<b>Question no.1</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	0	1	0.66

**Comments -**

<b>Question no.2</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	3
2. The language used in the question is appropriate for undergraduate students.	0	0	1	0.33

**Comments**

- Revise choice a
- Change the word “indifferent”.

<b>Question no.3</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	0	1	0.66
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**



<b>Question no.4</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	0	1	1	0.66

**Comments**

- Simplify each choice

<b>Question no.5</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

<b>Question no.6</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

<b>Question no.7</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	0	1	0	0.33

**Comments**

- The sentence structure is a bit too complicated for the students' level.

<b>Question no.8</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	0	1	1	0.66

**Comments**

- Reconsider the word "lifestyle". It is too broad.

<b>Question no.9</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	-1	0	0	-0.3
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments**

- The question seems to assess vocabulary knowledge rather an inference skill.

<b>Question no.10</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

<b>Question no.11</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

<b>Question no.12</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	0	1	1	0.66
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

**Question no.13**

Items	Expert 1	Expert 2	Expert 3	Sum
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -****Question no.14**

Items	Expert 1	Expert 2	Expert 3	Sum
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -****Question no.15**

Items	Expert 1	Expert 2	Expert 3	Sum
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

**Question no.16**

Items	Expert 1	Expert 2	Expert 3	Sum
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	0	1	0	0.33

**Comments**

- The question is vague.

**Question no.17**

Items	Expert 1	Expert 2	Expert 3	Sum
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	0	0	0.33

**Comments**

- A little adjustment on the question would be better.

**Question no.18**

Items	Expert 1	Expert 2	Expert 3	Sum
1. The question is appropriate for assessing the ability to make inferences.	-1	0	0	-0.3
2. The language used in the question is appropriate for undergraduate students.	0	0	0	0

**Comments**

- The question is vague.

<b>Question no.19</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1

<b>Question no.20</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	0	0	1	0.33
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

2. The language used in the question is appropriate for undergraduate students.	1	0	0	0.33
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**Comments -**

<b>Question no.21</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	0	1	0.66

**Comments -**

<b>Question no.22</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	0	0	1	0.33

**Comments -**

<b>Question no.23</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

<b>Question no.24</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	0	1	0	0.33
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1

**Comments -**

<b>Question no.25</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1
<b>Comments</b>				

<b>Question no.26</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	0	1	1	0.66
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1
<b>Comments -</b>				

<b>Question no.27</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	0	1	1	0.66
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1
<b>Comments</b>				
- The question is too easy for the students.				



<b>Question no.28</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1
<b>Comments -</b>				

<b>Question no.29</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1
<b>Comments -</b>				

<b>Question no.30</b>				
<b>Items</b>	<b>Expert 1</b>	<b>Expert 2</b>	<b>Expert 3</b>	<b>Sum</b>
1. The question is appropriate for assessing the ability to make inferences.	1	1	1	1
2. The language used in the question is appropriate for undergraduate students.	1	1	1	1
<b>Comments -</b>				

### Appendix M - Passage for Critical Reading Task I

Debates over a proposal to legalize casinos in Thailand have begun to heat up. Proponents of casinos and their supporters argued that revenue from casino legalization could help prop up the national economy because now our neighboring countries all have casinos and they can make a lot of money out of it.

However, if money is the only reason to support this proposal, it is surely not enough to convince the majority of the public that Thailand also needs a casino.

First of all, we don't have to imitate other countries to earn more money. Small islands such as Macao may not have many choices but to lure tourists and gamblers by legalizing casinos. This is simply because they don't have the natural assets that we have. I think Thailand has much more potential to further develop its economy in a sustainable manner.

The other issue to be considered is whether Thais in general would be able to resist the temptations of legal gambling when many of them are already addicted to illegal forms of gambling. Advocates for the casino may argue: what's wrong with people going to relax at a casino and spending their money as they wish during their leisure time? Of course, there's nothing wrong with people with a sensible financial outlook wanting to spend some of their disposable income on such a leisure pursuit. But my question is whether the majority of us are equipped with such financial literacy. More importantly, another question that needs to be answered is that whether our legal enforcement is efficient enough to protect young people from the prospect of massive gambling addiction.

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#### Critical Reading Questions:

1. What is the author's standpoint towards the topic?
2. What do you think would happen if casino were legalized in Thailand?
3. What are other inferences/ conclusions you can make from the text?

**Appendix N - Passage for Critical Reading Task II**

Dear Grandmother,

This is Jerome, your loving grandson. Our family has finally moved to the new settlement. Although **it** is a small town, father says it will expand and develop in due time. Right now, if there is an item **we** need, we have to make it ourselves or trade for it. My mother says that eventually we will be able to buy things at a store, but currently, there is **none** nearby.

Our journey here was very lengthy and challenging. First, we traveled by wagon and then we traveled by boat. We placed all of our belongings in a large trunk, and **it** was extremely heavy. The trunk slid right off the boat, but luckily, **it** was constructed of wood, so **it** floated.

When we first arrived here, we didn't have a house, so we built one ourselves. We built our own furniture, too. That kept us all very busy. Although it is not a particularly large house yet, mother says we will expand by building additional rooms soon. Every day there is something to fix or build. Father goes hunting, and I help **him** by fishing. Every night we go to sleep tired from the many things we do all day long.

I remember fondly where we used to live. We could purchase all of our goods at the market, and we all had made several friends. But father said we would ultimately have a better life if we moved here. Still, I miss my old friends much. I have met some children **who** live close to our new home, and I hope that **we** can become great friends. Right now I am so busy helping my family, though, that I don't have the chance to play with **them**.

My mother recently had a new baby, so I am lending a helping hand with my infant brother. **He** cries loudly during the evenings, so I hold and rock him. This soothes and comforts my brother, so that he is able to calm back down. When he's content, he smiles really widely at me. **You** will be surely delighted to see him. Mother says **he** looks like grandpa.

Jerome

**Critical Reading Questions**

1. What do you think is the lesson or theme that the writer wants you to understand from this story?
2. What can you infer about the setting of the story?
3. What can you infer about Jerome? (How old is he?/ What does he look like?/ What can you tell about his character? etc.)
4. What can you infer about his family? /About his parents?



## BIOGRAPHY

Name	Miss Savika Varaporn
Date of Birth	October 30, 1986
Educational Attainment	2005-2009: Bachelor of Arts in English (First-class honours) 2010-2011: Master of Arts in English Language Teaching
Work Position	Lecturer Department of Foreign Languages Kasetsart University
Publications	
	Dhanarattigannon, J., Varaporn S., & Kongcharoen, P. (2017) Autonomous Learning through an Online English Learning Program by Low Proficiency EFL Students. <i>Chophayom Journal</i> , 28(3), 20-27.
Work Experiences	2011-Present: Lecturer Department of Foreign Languages Kasetsart University June 2010-October 2011: Part-time Lecturer Institute for English language education (IELE) Assumption University