

# CHAPTER I

## INTRODUCTION

The first chapter is an initial delineation that sets out the formulation of this study. This chapter consists of some subsections with the general explanation related to the problem raised in this study. The subsections include the background of the study, the research questions, the hypothesis the research objectives, the scope of the study, the significance of the study, and some definitions of the important terminologies.

### 1.1 Background of the Study

In this 21<sup>st</sup> century education, the sector of education around the world is challenging to improve their students' educational performance or skill to fully participate in this modern society. EnGauge (2003) - the north central regional educational laboratory - classified the skills that are required by the 21<sup>st</sup> Century students to be able to compete in the global job market; including digital-age literacy, inventive thinking, effective communication, and high productivity. Some skills which are requisite for emerging the educational domain are higher-order thinking and sound reasoning. These aspects relate to the ability of someone to solve the problems innovatively and logically until it creates the appropriate consideration and decision. Thus, to be able to solve the problem encountered innovatively and logically, it is important to provide the students the ability to think critically.

In an attempt to meet the society demands, Indonesia government through the education ministry brings out PERMENDIKBUD No. 20/2016 which is concerned with the standard of graduate performance. The regulation states that, at least, there are three dimensions that should be accomplished by the graduate students those are attitude, knowledge, and skill. One of the important skills that should be possessed by the students is to think and act critically. Think and act critically is also important to be accustomed from an early age. It also appeared as well on the standard competence of elementary school graduate performance, which requires the students to be

competent in developing knowledge factually, conceptually, critically, and conceptually (PERMENDIKBUD No. 20/2016). In the EFL context, critical thinking involves the activity which stimulates the students to do the interpretation, collaborate with practicing the English language, uses the convention in writing ability, implement the knowledge, solve the discussed problem, reflect the language use and create a topic.

Regardless of this continuous advancing world, people who are skillful in solving the encountered problems and generating new ideas from a large number of data and pieces of information will be more favorable than they who are incompetent to deal with the advancement. Thus, the demand for equipping learners with appropriate thinking tools is undoubtedly urgent. Corresponding to this demand, it is undeniable that critical thinking has a crucial role and may impact positively educational practice since the ability to think critically, however, can be assumed as the most noticeable and effective component in the educational system. In brief, to reach the target of this current society demands, paying attention to the critical thinking becomes one of the fundamental phenomena and dimensions.

Critical thinking can be defined as the ability to think rationally and logically. It is a process of actively involving, analyzing, studying, and surveying the problem to come up with a final conclusion (Fattahi and Haghverdi, 2015, p. 134). Critical thinking is one of the most thought-provoking methods of teaching, which can be implemented in any discipline since its implementation in the learning process can help students bring about positive changes in the way they think and expand the horizons of their knowledge. Thus, if it is well-developed in EFL class, it will not only build up students' English communicative competence but also their intellectual trait as well.

However, the result of the survey conducted by the Programme for International Student Assessment (PISA) - the ongoing program that offers the insights for education policy and practice which monitors the trends in the students' acquisition of knowledge and skill across countries - revealed the surprising fact on Indonesian students' achievement. PISA did the investigation on 2015 through the

core school subject assessment, including science, reading, mathematics which involves on approximately 540.000 students (of age 15). From the survey, the result showed that there were some improvements in the Indonesian students' score. Nevertheless, it has to be continually improved seeing that Indonesia ranks the 62<sup>nd</sup> from the 72 countries participated. Moreover, contrasted with the other Asian countries, Indonesia occupied the lowest rank perceived from the percentage of the share of top performers in at least one subject that reached level 5 or 6; Singapore (39.1%), Hongkong (29.3%), Vietnam (12.0%), Thailand (1.7%), and Indonesia (0.8%). In line with this result, Indonesia merely obtained below 400 of the reading scores as they were getting frustrated with answering the open-ended questions which need some or more reasoning and analyzing skills which necessitate them to think critically.

Previous studies also revealed the condition of Indonesian students' critical thinking abilities. Alwasilah (2008) conducted an investigation on Indonesian students' critical thinking skill. He found that the students of Elementary and Secondary level have less critical thinking skills (83%), college students (71%). It is assumed that there are at least three causes back on it, those are Indonesian culture influence (71%), the expertise of teachers and lecturers in learning the critical thinking (71%) and the low qualified lecturers and college students (25%). In addition to those three causes, he highlighted that the lower level of students' critical thinking skill is also caused by the teacher willingness to develop their competencies and the low habit to critical thinking. Another study also revealed that the students' critical thinking skills are still low. Almost in every indicator of critical thinking skill, the students only reached less than (30%). (28%) for the elementary clarification, (10%) for the basic for decisions or basic support, (6%) for inference, (6%) for advanced clarification, (4%) for strategies and tactics (Puspita et al, 2017).

In addition, Haridza and Irving (2017) also conducted the investigation on students' critical thinking skill in Public Middle School 3 Pontianak. Based on the performance test, the study showed that the students' critical thinking skills were at a low level, although their achievement scores were higher than the school standard.

This was caused by the huge implementation of traditional methods such as rote learning, memorization, and other students' passive activity or teacher-centered in the learning process. Thus, the impact of that continuous action made the students become inactive learners as they cannot develop higher order thinking skills.

Junining (2016) also conducted the investigation on Indonesian students' critical thinking skills. From the study, she acknowledged that the students' critical thinking skill, however, should be developed continuously in this globalization era, as she found that many Indonesian students did not master this kind of skill. There were still some constraints in applying this skill into action. Both teachers and students had the difficulties in implementing this skill into the teaching and learning process in the class.

A previous investigation on critical thinking skills was also done by O'Brien in 2013. From the study, he found that most of the students were taught to memorize the lesson. They were not given space to enhance their critical thinking skills. However, to make the students to be able to think critically, the teacher ought to facilitate the students a space, or an activity that could promote their thinking into the higher order level of thinking. Other researches on critical thinking was also done by Djwandono in 2013. The study showed that the students' critical thinking skills improved better through the process of learning. The improvement was indicated by the frequency of the questions that come from the students after they were given such stimulation.

In Indonesia, the critical thinking has been included in the education system. It should be widely implemented in the teaching and learning processes at all levels of education, because nowadays people are urged to have this skill to be able to compete globally. Indonesian ELT (English Language Teaching) can actually play a pivotal role in promoting critical thinking in education. However, the development of ELT in Indonesia since colonial up to this present era does not seem to facilitate the students' critical thinking skill (Ilyas, 2017). This is also in line with the preliminary studies which revealed that the Indonesian students' ability in seizing upon their critical thinking skills which did not well-developed yet. Nugroho (2008) cited in

Ilyas (2016) stated that, for decades, education in Indonesia has been dominated by teacher-centered instruction and rote learning (memorization technique based on repetition); where the students have to sit, listen, take notes, or memorize minister names for example. In addition, most of the students also are focused on linguistic factors rather than the higher level of thinking. Thus, the critical thinking skill development in EFL class seems to be a by-product of teaching and learning process as the students are not accustomed to thinking critically since the teacher applied the conventional teaching method (teacher-centered).

Those studies showed the importance of critical thinking incorporated into language learning to improve students' ability in thinking critically on every single information they read or hear. Therefore, they can compete with the people in the global and improve the rank of their countries. Regarding to the importance of students' critical thinking skills development in this 21<sup>st</sup> century education, the teachers are urged to promote students to use the higher order level of thinking. The teachers should rethink their teaching plans, models, methods and so on and so forth, which may support them in assisting the students to enhance their critical thinking skills. One of the alternative teaching methods is inquiry-based teaching. Inquiry-based teaching is recommended for the teacher since it is categorized into the student-centered learning. Besides, in inquiry-based teaching process, students are willy-nilly encouraged them to do the experiment or observation, collect and analyze the data, draw the conclusion, as well as to be objective, truthful, and critical in solving the problem given by the teacher. In line with this, Magnussen et al. (2000) expressed that the inquiry-based teaching method has been just like a problem-solving method, but more comprehensive and flexible that leads to critical thinking. In addition, Garrison & Anderson (2003) stated that the inquiry-based teaching model can improve students' critical thinking in students' mind, since it is known as a method of teaching that mandates the teacher to create a learning atmosphere which may promote the students as a scientist. The students are also stimulated to ask or question on a phenomenon initiative as well as proposing the hypothesis, doing observation, analyzing data, drawing the conclusion, and clarifying their discovery.

Nowadays, critical thinking skills become more and more essential to the educational system and culture in the worldwide. As an attempt to develop their countries, there have been a lot of researches of critical thinking skills especially in EFL/ESL educational programs. For instance, the researches on improving critical thinking skill (Yang et. al 2005, Jensen 2015, Zare 2015, Shamid 2016). Moreover, there were also some researches that attempt to improve critical thinking skill of students by maximizing the use of technology (Vidoni and Maddux 2002, Cavus 2009, Kong 2014, Mansbach 2015). Other researches on enhancing students' critical thinking skills were also conducted through implementing problem-based learning (Yuan et. al 2008, Chyn and Huijser 2009, Masek and Yamin 2011, Birgili 2015, Asyari 2016, Haridza 2017, Carbogim 2017), and environment-based education (Ernst 2004, Ernst and Monroc 2006, Ernst et. al 2007, Ernst 2007).

However, there has been no published study have been identified yet that focus on exposing and describing the process of how the students' critical thinking skills improved in the learning seen from their behavior during the class discussion, so that the other teachers, researchers, and stakeholder could consider to use it as an alternative way to improve students' critical thinking skills. Therefore, to have a clear depiction of the learning process, the researcher selected one of the best methods of promoting critical thinking skill, that was an inquiry-based approach. It was selected because of its potential in promoting critical thinking and could support the activities that stimulate the students' higher order thinking atmosphere in their learning (Sweetland, 2008), as we know that thinking is not congenital but habitual action. Indonesian proverb said that "*tajam pisau karena diasah*", that might be happened to the brain. The more we use our brain to think, the more incisive the intelligent. Thus, it is important for us to accustom the students to think. Then, based on the issues brought up earlier, the researcher attempts to investigate more on the implementation of one of the teaching methods (i.e. Inquiry-based approach) affects the students' critical thinking skill in English language learning. Thus, the research tittle in this present study is "improving students' critical thinking skill in English language learning through inquiry-based teaching". However, there were many studies

conducted on improving critical thinking, implementing inquiry-based teaching, also on the effect of inquiry-based teaching on students' critical thinking skills, but they did not explain how it was implemented, the way of how the inquiry approach could improve students' critical thinking skills.

## **1.2 Research Questions**

This study is guided by several research questions, those are:

1. Does the inquiry-based teaching improve students' critical thinking skills?
2. If there are improvements, how does inquiry-based approach affect the improvements?

## **1.3 Hypothesis**

Based on the first research question stated above, thus, the hypothesis of this present study is that "inquiry-based teaching effects significantly EFL students' critical thinking skills."

## **1.4 Research Objectives**

Based on the research background and research question stated in this present study, the objectives of this study are to recognize how the inquiry-based teaching improves EFL students' critical thinking skill in English language learning and how the inquiry-based approach conducted in the teaching and learning process.

## **1.5 Research Scope**

Based on the background of the research stated earlier, thus, this present study covers only some aspects, those are:

1. The independent variable is inquiry-based teaching method.
2. A dependent variable is a critical thinking skill.
3. This present study is conducted in junior high school on English subject which involves 36 students as research sample.

4. The sampling technique that is used in this is random sampling techniques. Random sampling is one of the sampling technique in which each and every member of the population has an equal and independent chance of being selected (Fraenkel, Wallen, and Hyun, 2012:94). They argued that this sampling technique is the best way yet devised to obtain a sample representative of the population of interest. For example, in this study, the random sampling itself was used in both quantitative and qualitative approaches in which the researcher selects the research sample randomly through lottery from the available population
5. The method applied in this study is mixed method research. This method was applied as the research necessary in gaining both quantitative and qualitative data. As Fraenkel, Wallen, and Hyun (2012:557) stated that “mixed-methods research is used when we use both quantitative and qualitative methods in a single study”. They also argued that the use of both methods provides a complete understanding of research problems than does the use of either approach alone (Fraenkel, Wallen, and Hyun, 2012).
6. The students’ critical thinking in learning English is measured through a reading test which was given before and after the treatment implemented, then scored by using critical thinking scoring rubric adapted from Facione and Facione (1994) named Holistic Critical Thinking Scoring Rubric.

### **1.6 Definition of Terms**

To prevent misunderstanding also misinterpreting of the terminologies used in this study, the writer equates the meaning of the terms as follows:

#### **1. Critical Thinking**

“Critical thinking can be defined as the ability to think rationally and logically. It is a process of actively involving, analyzing, studying, and surveying the problem to come up to a final conclusion” (Fattahi and Haghverdi, 2015, p. 134).



## 2. Inquiry-Based Teaching

Inquiry-based teaching is a pedagogical approach that invites students to explore academic content by posing, investigating, and answering questions (Sweetland, 2008).

### **1.7 Concluding Remark**

This part unfolds the burning issues which become the background of this study completed with research questions that steer the process of the data intake. The hypothesis, objectives, scope of the research is also included as well.

Meanwhile, as in the overview, this thesis will contain five chapters; Chapter I (Introduction), Chapter II (Literature Review), Chapter III (Methodology), Chapter IV (Findings and Discussion), Chapter V (Conclusion and Suggestion).