# CHAPTER I INTRODUCTION

This chapter consists of the background, research questions, research purposes, research significance, conceptual framework, and previous studies.

#### A. Background

The advancement of information and communications technology (ICT) have brought a new chapter to human civilization, and an expansive reach makes human interaction in the dimensions of space and time increasingly limitless. It is believed that the character of the 21st century is the growth of internet technology and the dissemination of information rapidly (Kiki, 2019). Technological advances provide two sides of a coin, namely positive and negative sides. The positive side of ICT now can offer more accessible access to information (Haile et al., 2019). For example, someone will get easier to communicate with others who are far away or from different countries. In other words, there are many benefits that is given by this era.

However, ICT also has a negative impact on life, and one of them is the spread of fake news (Korunka & Hoonakker, 2014). In fact, a hoax or fake news has spread to all countries (Kiwi, 2018). This condition makes fake information spread to almost all corners of life. Especially in this pandemic, many misleading information about Covid-19 spread around the public. For example, In Indonesia, The Ministry of Communication and Information has found 1,733 fake news about Covid-19 and Vaccines as of April 30, 2021 (Agustini, 2021). At least, this problem has become serious which must be resolved.

Besides, in preventing hoaxes, every country has differences; two of them is Brazil and Finland. Brazil has media analysis lessons in its national curriculum to fight fake news (Millenial, 2018). Meanwhile, Finland implemented the critical thinking (CT) lesson in its national curriculum to against fake news (Mackintosh, 2019). However, it is different from developing countries such as Indonesia,

students have not yet got lessons about the philosophy of logic and thinking pattern (Santosa in Andriani, 2017). Even though Indonesia has an Indonesian anti-slander community institution (MAFINDO); but, it does not touch directly with the school system (Weddiningrum, 2018). Therefore, this condition has produced a new challenge: how humans survive which surrounded by the outbreaks of information (Kurniawati et al., 2020). Moreover, this problem is triggered by online social media which becomes more prevalent, and the Internet becomes an ideal breeding ground for spreading fake news, such as misleading facts, fake reviews, fake advertising, rumors, fake political statements, satires, and other forms of misinformation (Zhang, 2019). In fact, the Indonesian people are said to be easily exposed to hoaxes (Aji in Baiduri, 2017).



Figure 1.1 Examples of fake news and fact news

One suggested way to differentiate between factual and fake news is that the readers must look from other sources to compare the news they read or called RADAR strategies (Mandalios in Neely et.al, 2018). For example, the first news (left) is considered as fake news, and the second (right) is fact news. In addition, Thompson Rivers University Library (2022) states the characteristics of fake news: a) clickbait: a story, often sensational or featuring a sensational headline, geared toward getting "clicks" (to generate ad revenue), b) sponsored content: a story that is made to appear as independent journalism when in fact it is public relations or advertising, and c) fabricated journalism: news stories that are

completely made up (including fabricated quotes and sources. Finally, to deal with this phenomenon, everyone must have the CT skills in warding off misleading news.

Regarding CT, Maslakhatin (2016) states that to meet the 21st-century learning skills effectively, students' CT skills must be enhanced, particularly in higher education, and specifically related to survival in this massive information era. Hence, in the 21st century, CT has been needed as the primary goal of today's curricula (ŽivkoviŁ, 2016). Despite this pressing need, CT is not taught as a separate subject in schools in the Indonesian context (Kurniawati et al., 2020). In reality, this disruption era requires schools to have skills and teach with CT and problem solving, creative thinking, communication, and collaboration or what is called 4C (Septikasari & Frasandy, 2018).

A limited observation conducted by the researcher in one of the senior high schools in West Java - Indonesia, shows that students had difficulty in differentiating factual and fake news/information they found in the texts, such as analyzing the text, finding the bias in the text, making inference, and differentiating between factual and fake news. This problem could be seen when the teacher asked questions about the news "what is the difference problem between fact and fake news? what central point the author or speaker is trying to make? and who stands to get benefit from this message?" to students that require their analytical thinking skills. The result showed that only 2 out of 36 students could use their analytical thinking skills. Besides, the interview was conducted with the students. From the interview, the students admitted that they did not get any lessons about how to handle text critically. Consequently, these problems will be more severe if students are not taught to read the text actively and comprehensively. To deal with this phenomenon, the researcher proposes to teach students in differentiating factual and fake news by using CT skills; so, students could not be easily exposed to fake news that can mislead them.

There are several studies about teaching CT skills. The first comes from Widyastuti (2018), who fosters students' CT skills through argumentative writing.

The data were taken from an essay written by the fourth-semester Indonesian taking the writing class. In her study, the researcher used Stapleton's criteria of CT as the analysis instrument, such as claims, kinds of reasoning, the extent of evidence, recognition of opposing arguments and refutations, and fallacies. According to the findings, incorporating CT features into EFL argumentative writing has aided students in developing critical thinking skills and English language competency. Without proper critical thinking exercises, EFL students may lack confidence in their academic lives and miss out on opportunities to move up the ladder in the increasingly tricky global workplace.

The second comes from Apsari (2016), who investigated teachers' ways to foster critical thinking in the classroom. In her research, the researcher used critical thinking in an argumentative essay. In addition, she researched at the Senior High School level. The participants of her study were a teacher and students. Observation and interviews were used for the data collection. The finding shows that the teacher had been fostering critical thinking in each stage of the teaching-learning process through her instruction and activities related to the argumentative essay. Besides, the teachers suggested developing an awareness of critical thinking with the intention of encouraging students to become critical thinkers.

To fill the gap, this study focuses on identifying the text, identifying bias, and making inferences from the text to reveal students' CT skills in to distinguish factual and fake news. However, this research nurtures high school students, especially students who will continue their college education about differentiating factual and fake news and providing them with the ability to think critically. Also, this research could foster students to be ready to face the post-school world.

#### **B.** Research Questions

Based on the background of the problem above, the researcher formulates the research questions as follows:

- 1. How is the process of teaching CT skills implemented by the teacher to foster EFL students' ability in differentiating factual and fake news?
- 2. What are the cores of critical thinking skills achieved by the students seen from students' answers related to the factual and fake news?

### C. Research Objectives

Based on the research questions above, the objectives of this research are described as follows:

- 1. To find out the process of teaching CT to foster students' ability in differentating factual and fake news.
- 2. To explore the cores of critical thinking skills achieved by the students seen from students' answers to the factual and fake news.

### D. Research Significances

Based on the research problem above, this research is expected to help:

1. Theoretical Significances

This research is expected to make teachers and students get information about differentiate factual and fake news in the academic field by using CT skills.

## 2. Practical Significances

a. Teachers

This research will contribute to teachers in teaching students about CT in differentating factual and fake news.

#### b. Students

This research is expected to increase students' ability of CT to read and differentiate factual and fake news. Till, the students will not easy to exposed by fake news.

### E. Conceptual Framework

CT is a mindset that every individual should have, especially in education. The advancement of industrial technology 4.0 makes people more careful in analyzing information. Therefore, students who are the fields for the most internet users should be taught how to think critically to avoid the danger of misinformation. Hence, this study describes how the process of learning carried out by teachers to senior high school students is to guide them to improve their CT skills in reading news or articles.

Regarding CT, Fisher (2011) clarifies the skill of CT: interpret, analyze, evaluate ideas and arguments. Furthermore, Facione (1990) states the skills of CT include interpretation, analysis, evaluation, and explaining. However, in the world of education at the school level, it is recommended to teach about HOTS (Higher Order Thinking Skills) in the revised Bloom Taxonomy, which has a thinking level: Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating (Widana, 2017). On the other hand, Erstad in Fatiha et.al., (2021) categorizes six cores of CT skills: identification, research, identifying biases, inference, determining relevance, and curiosity. Therefore, this study will take three cores of CT skills: identification, identifying bias, and inference.

Moreover, CT is a way of thinking using reasoning, reflective, and responsible skills to believe in accepted things. To support students' ability to think critically, this study will use the Critical Thinking Question (CTQ), which Paul & Elder (2019) have adopted: a) what is the author's goal? b) what is the author's target? c) what is the problem raised, d) what data is the evidence in the text? e) what is the author's view of the world? f) does the author justify the evidence as we think? g) how does the writer justify his point of view? Finally, this research will take points in critical thinking questions: a) the problem raised, b) the author's purpose, and c) fact and opinion.

In addition, this research uses a fact and fake news as authentic material. Facts are things, circumstances, or events that actually exist or actually happened (Afroni, 2019). In other words, fake news is a news that presents information about the truth of something. Moreover, Pangesti (2021) makes the criteria for fact news: a) can be proven true, b) have accurate data both time, date, place, and event, c) collected from trusted sources, d) are objective, e) usually can answer the question formula 5W + 1 H, and f) states events that are or have occurred and have occurred.

Meanwhile, a fake news is information that is claimed to be a hoax. Another definition says fake news is information that is misleading or contrary to facts (Gelfert, 2018). On the other hand, fake news contains controversial content so that readers will raise critical questions related to the content. According to Grinberg et al. (2019), fake news is intentionally created for monetary purposes that will be spread through social media because media production and distribution are still considered obstacles. Added by Bakir & McStay (2018) categorizes the content in fake news: a) The production of fake news about misinformation for the public, b) the information provided is not relatable, c) fake news can trigger people to become antagonistic so that it has a provocative nature. In creating fake news, writers will spend time on the pages of their online sites. At least, it can be concluded that fake news is information spread through social media with misleading content and can invite chaos.

## F. Previous Studies

There are several kinds of research related to the topic of this study. The first comes from Maslakhatin (2016), who investigates students' CT by teaching critical reading strategies (CRS). He uses an argumentative text as the material. Moreover, his research was conducted in the library review. As a result, the researcher found that teaching CRS is expected to build up students' CT skills. As a tool to teach the students, the teacher could use these steps: a) annotating, b) previewing, c) scanning and skimming, d) fact vs opinion, e) drawing conclusion, f) questioning, g) summarizing, and h) paraphrasing. Finally, the researcher concludes that teaching CRS may be able to help the student increase their deep understanding beyond the text.

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The second study of Sabet (2017). He investigated the effect of teaching critical thinking on the ability of male and female EFL students to solve problems. His study selected twenty men and two recovered women, and the mean age of the participants was between seventeen and twenty-six years. The approach used in this research is quantitative with a quasi-experimental method. The researcher also divided the control group into two, and the experiment was conducted by conducting pre-test and post-test. The results show that teaching CT affects the reading comprehension of Iranian EFL students. However, the data showed no significant effect on the CT knowledge of male and female students. Last but not least, this study proves that CT and gender do not have a contrasting relationship.

The third study of Machete (2020), who explores the approaches to identify fake news by using systematic literature review (SLR). The researcher writes some approach to identify fake news: a) language approach, b) topicagnostic approach, c) machine learning approach, d) knowledge-based approach, and e) hybrid approach.

The fourth study of Husna (2019), who teaches an integrated extensive reading program to develop students' CT skills. Her research uses a mixed-method. The main instrument was a text students' CT that given before and after the program. The students were also asked to share their perception about the program after it ended by writing a reflection. The researcher explains if the students get positive influence on their critical thinking.

However, this research has difference from those researches above. This study focuses on teaching critical thinking skills to foster students' ability in differentiating factual and fake news. As authentic material, this research uses factual and fake news. The ability to analyze or differentiate news with critical thinking skills is believed so that someone is not exposed to misleading fake news.