

CHAPTER I

INTRODUCTION

This chapter describes the background of the study, the research question, the aim of the study, the scope of the study, and the significance of the study.

1.1 Background of The Study

The development of the 21st century requires learners to equip themselves with a vital knowledge insight within the era of world competition. As claimed by Tinio (2003), one amongst the abilities needed to face future challenges is a high level thinking skill (higher order thinking) or often called critical thinking skills. This skill is expounded to the power to identify, analyze and solve problems creatively and think logically so as to produce appropriate judgements and decisions. Thus, to enhance students' ability in thinking critically, higher order thinking skills must be incorporated in the learning process.

This commitment to HOTS is globally relevant to economic growth, the development of information and communication technology (ICT), a knowledge-based economy and a fast-moving world (Yen and Halili, 2015).

In fact, HOTS is an indispensable skill for any individual in any educational setting. Moreover, Fisher (1999) believes that the development of student

HOTS goes hand in hand with lifelong cultivation learn among them. In other words, we need “thinking” students who can continuously respond to the demands of the real world (Vijayaratnam, 2012).

Higher order thinking skills (HOTS) is a thinking ability that not only requires the ability to remember, but also requires other higher abilities, such as creative and critical thinking skills (Jaenudin, et al., 2020). Higher Order Thinking Skill (HOTS) also defined as a cognitive process which encompasses; analysis, evaluation, and create (Arif, 2019). HOTS assessment is now become the focus of government’s program in increasing students’ critical thinking, also one of the skills that required in this 21st century. In the research conducted by Arif (2019), stated that higher-order thinking skills is important to apply in learning, particularly in making questions tested to students. Especially for higher students, they must not only have a lower order thinking (LOT), but also have to reach a higher order thinking (HOT) (Kusuma et al, 2017).

The recent reform of our education system has witnessed, among others, the incorporation of higher order thinking skills (hereafter cited as HOTS) into curriculum at all educational levels (Jerome, et. al, 2017), but the implementation of this curriculum has been unsatisfactory because of the new and unfamiliar format that challenges students’ *conventional* way of thinking and learning (Othman, 2014).

As stated by Istiqomah (2019), the existence of Higher Order Thinking Skills was applied in tests on the higher level thinking of learners, due to one factor on the international test is caused by students' low thinking ability, this is also due to the various questions tested only supported students' memorization so that the students only on a *remember* domain. The Directorate of High School Development in the International Standard Preparation Guide (2015) explained that the most high school teachers only tended to measure lower-order thinking skills which focused on theories, not contextual knowledge, of which did not fit to the 2013 curriculum's requirements (Arif, 2019).

The present study focuses on the incorporation of higher order thinking skills based on Bloom's revised taxonomy in e-learning application. Some of relevant studies analyze higher order thinking skills based on Bloom's revised taxonomy on textbooks, for example is a study conducted by Apriani (2019) which aims to obtain empirical evidence from the distribution of higher order thinking skills based on Bloom's revised taxonomy on essay questions in reading exercises in the Pathway to English textbook used for the 10th grade of senior high school students. The result showed that the distribution of higher order thinking skills (HOTS) is lower than lower order thinking skills (LOTS). This is in line with Anasy (2016) who analyzed the distribution of HOTS based on Bloom's revised taxonomy

in essay question on textbook. The results were almost similar, the distribution of HOTS is lower than the LOTS.

From the examples of previous study that the author has given, the author assumed that the incorporation of higher order thinking in many textbooks is not yet evenly distributed. This problem also mentioned by Kusuma, et al (2017) that the problems in school are the questions used in the assessment of cognitive instruments tend to test more aspects on the memory aspect, meanwhile the questions that train students' higher order thinking skill are not quite available. For that reason, the author is curious about the incorporation of bloom's revised taxonomy in other media, in this case e-learning platform, since the research analyzed Higher Order Thinking Skills in technology area has not been done much.

Several developments in educational field have happened since the launch of the internet. Nowadays, learners have experience in using smart phones, text messaging and using the internet, so participating in and running an online course is easily use (Epignosis, 2014). The intended outcome of this increased IT-facilitated student engagement is to foster important skills such as higher order thinking skill used in both academia and workplace environments (Saadé, 2012). Thus, e-learning systems or platforms become popular among young learners, one of them is *Ruangguru* application.

This present study mainly discusses higher order thinking skills in e-learning application, particularly *Ruangguru* application. This application is one of the paid platforms for students from elementary school level to high school level. *Ruangguru* application or widely known as RuangGuru.com is the biggest and the most complete technology company in Indonesia focusing on educational-based service (Cahyani, 2019).

The data source of this study comes from English multiple-choice questions in *Ruangguru* application. Fatimannisa, et al. (2020) conducted a study which aimed at finding out the students' perception on the use of *Ruangguru* application in their English learning. The results showed that students' perception were positive about the use of Ruangguru application in their English learning. This learning platform combines various learning media, from video, infographic summary, quiz, and practice set. However, this study aims to focus on how higher order thinking skills are incorporated in English multiple-choice questions for tenth graders in the practice set namely *RuangBelajar* feature based on Bloom's revised taxonomy.

This study only focuses on the questions in "*Latihan Topik*" on the *RuangBelajar* feature. According to Permatasari and Soedarsono (2019), the effect of *RuangBelajar* feature on the level of understanding of students using *Ruangguru* application is quite influential with a fairly high percentage of results; the current technological developments becomes the

reason for using educational media, it easier and more sophisticated media for students, also they can study whenever and wherever.

A study conducted by Arif (2019) entitled Higher-Order Thinking Skills (HOTS) Analysis on Teachers' Questions in the final examination of Indonesian Language and Literature at SMA Negeri 7 Medan examined data on the odd semester final exam for class X and XI concluded that the questions did not entirely promote higher order thinking skills, including the cognitive process of *create*.

The integration of technology and Higher Order Thinking Skills also discussed in the study in Malaysia by Ramli et.al (2018), they investigated the use of E-HOTS in the teaching and learning practice of Arabic language trainee teachers in Universiti Pendidikan Sultan Idris (UPSI) throughout the teaching practice period. The term E-HOTS refers to the use of the electronic and technology elements involving the elements of Higher Order Thinking Skills (HOTS). The trainee teachers were to produce an E-HOTS and apply it in the Arabic language teaching and learning practice. The findings of the study showed that the use of E-HOTS in the teaching and learning practice of UPSI's Arabic language trainee teachers was able to establish a student-centred teaching and learning activity and indirectly able to produce trainee teachers with versatility in teaching and learning practice, in line with the teaching and learning practice of the 21st century.

The study conducted by Rahman, et al. (2020) aims to evaluate English material for secondary schools in the *Ruangguru* application based on standard criteria proposed by the Minister of Education and Culture in Indonesia in terms of standard objectives, content, processes and assessments set out in the national curriculum year 2013. The result shows that *Ruangguru*, as one of the biggest online learning platforms in Indonesia, is considered reliable due to most of the criteria in the 2013 curriculum the standard syllabus has been met in terms of content, process, assessment as well as goals.

Meanwhile, this present study focuses on how is the cognitive domain in English multiple-choice questions. It includes to analyze the incorporation of higher order thinking skills based on Bloom's revised taxonomy in the e-learning application. Then, it also focuses on how higher order thinking skills are incorporated in selected questions of English exercises in *Ruangguru* application, particularly in *Ruangbelajar* feature.

The discussion in this study is important compared to the previous studies, as it focuses to analyze the incorporation of higher order thinking skills in one of the biggest learning platforms in Indonesia (Cahyani, 2019) with more than 15 millions users (*Ruangguru* official website) and seeks to find out whether or not the higher order thinking cognitive domain based on Bloom's revised taxonomy are existed and distributed evenly in the

questions in order to improve students' higher order thinking skills, one the important skills in dealing with the 21st century.

1.2 Research question

Based on the background of study, the research question is as follows:

How higher order thinking skills are incorporated into English exercises in *Ruangguru* application for senior high school tenth graders?

1.3 Purpose of the study

This study aims to analyze the incorporation of higher order thinking skills in English exercises for tenth graders in *Ruangguru* application based on Bloom's revised taxonomy.

1.4 Scope of the study

The scope of this study is how higher order thinking skills (HOTS) are incorporated in selected multiple-choice questions (MCQs) in English exercises at *Ruangguru* application, particularly in *Latihan Topik* part of *RuangBelajar* feature for tenth graders. The selected questions will be analyzed by using analysis table of cognitive level from Bloom's Revised Taxonomy.

1.5 Significance of the study

The study will shed light on the representative of higher order thinking skills (HOTS) through English multiple-choice questions in *Ruangguru* application. The findings may help the writer herself as a prospective teacher and reader. The study is also expected to provide broader knowledge about e-learning

application, multiple-choice questions, and higher order thinking skills from Bloom's revised taxonomy, also to give valuable contributions for further researchers who have an interest in analyzing questions in e- learning platform.



*Mencerdaskan dan
Memartabatkan Bangsa*