CHAPTER I

INTRODUCTION

This chapter covers background of the study, research questions, objectives of the study, significance of the study, scope of the study, clarification of key terms, thesis organizations, and concluding remarks.

1.1   Background of the Study

Nowadays, the education field has been influenced by 21st Century development. The development's demands have changed the teaching and learning process, especially relating to the students' thinking skills to solve such challenges. These challenges mainly cover the thinking process at a higher level (Ibrar & Mukhaiyar, 2020). In achieving the 21st Century skills development, the government of Indonesia has realized the implementation of the 2013 Curriculum in which HOTs appears as one of these curriculum's demands (Setyarini, 2019; Wiyono, 2017). As an impact, there has been increased attention to enhance the students' HOTs in all curriculum areas. Accordingly, Ratnaningsih (2017) notes that regarding Ministry Regulation of National Education No. 65, the 2013 Curriculum covers a cognitive learning process to stimulate the students' intellectual development in the students' HOTs. Therefore, in Indonesia, HOTs as the basic implementation of the 2013 Curriculum becomes a primary concern to prepare the students to deal with the current demands (Al-Kindi & Al-Mekhlafi, 2017; Ratnaningsih, 2017; Sundayana, 2015; Wiyono, 2017).

To address this issue, all levels of education in Indonesia are focusing on achieving HOTs as part of 21st Century learning to meet the demands of the era. Teaching and learning have been linked to these skills as a result of this change (Ginting & Kuswandono, 2020). To attain successful educational achievement, it is not always necessary to have an up-to-date curriculum in order; rather, it is necessary to know how to implement the teaching and learning process in the classroom. As a result, the teacher needs to sharpen the students' critical thinking skills in the classroom through higher order thinking activities. These activities are

related to the teaching and learning process in class, which focuses on materials designed by the teacher based on HOTs, because those activities can help the students to develop skills in dealing with HOTS demands. In addition, Li (2011) clarifies that thinking skills become the most critical aspect in the classroom to allow the students to think, learn, and share the subject matter. These can be an extremely pivotal skill for every individual in any educational context (Yen & Halili, 2015). It can be said that it is critical to significantly improve learning outcomes in order to achieve its goal (Setyarini et al., 2018). Thus, this era's demands focus on leading the students to have a higher thinking level in learning practice as the central theme of education (Aliakbari & Sadeghdaghighi, 2013).

As explained above, the implementation of HOTs plays a pivotal role in achieving the 21st goal of learning (Ginting & Kuswandono, 2020); however, its realization does not show significant results. More specifically, the particular purpose of implementing the 2013 Curriculum is to build the students' thinking skills. In contrast, the fact reveals that integrating this current basis of teaching is quite hard to implement successfully (Al-Kindi & Al-Mekhlafi, 2017). Some barriers in promoting the students' HOTs deal with the teacher's difficulties in making distinctions of taxonomy levels in designing the materials, particularly at higher levels (Nagappan, 2000). Besides, the teachers still find particular challenges in designing and implementing materials covered by HOTs (Ginting & Kuswandono, 2020). Furthermore, it is also influenced by the teachers who have no appropriate methods, strategies, and practices in teaching (Cottrell, 2005) because most of the perspectives see that HOTs are only oriented for math and science teachers (Hashim, 2003).

Concerning this, focusing on improving the students' HOTs, especially for Indonesia's senior high school level, becomes an important aspect. This is essential in preparing the students with real-life skills that need the particular capability of creativity and innovative skills (Ibrar & Mukhaiyar, 2020). Accordingly, the Ministry Regulation of Education and Culture of Indonesia No. 69 in 2013 clarifies that the senior high schools' main framework and structure of curriculum are to prepare the students to have an ability of real-life skills as individuals and citizens

who are creative and innovative to provide a particular contribution to the society, state, and world civilization (BSNP, 2013). It can be said that the education institution at this level plays a pivotal role to provide and facilitate the students with the particular skills that are essential to face their future (Afandi et al., 2019).

Dealing with these phenomena, a tactful strategy to prepare the students to face the world demands are highly required. This strategy is metacognitive regulation. This term refers to an individual process of recognizing, monitoring, and controlling their thinking process internally, and organizing and evaluating their cognitive process (Kocak & Boyaci, 2010). Specifically, it covers three main points: planning, monitoring, and evaluating (Rahimi & Katal, 2012; Salmani, 2008). Planning here means setting specific goals, selecting particular strategy, and scheduling time. Besides, monitoring means monitoring and controlling the classroom process, and evaluating means evaluating the study's outcome (Balcikanli, 2011).

This metacognitive regulation becomes a significant factor that the teacher requires in order to regulate themselves in the instruction before, during, and after conveying the lesson in order to maximize the learning process (Hartman, 2001). Paying close attention to metacognitive regulation has emerged as an important educational field goal. It occurs because it is inherently linked to a more active cognitive process and a better understanding, both of which directly improve someone's performance (De Backer et al., 2016). The teacher has the opportunity to explore his actions in planning, monitoring, and evaluating to improve classroom practice in order to achieve the desired outcomes through his performance. It is possible to say that if the teacher can control his thinking process, he can improve his skills, abilities, and performance. This provides more opportunities to improve the students' academic performance, particularly their HOTs. According to Zohar (1999), promoting the students' HOTs integrates significant metacognitive components. It defines metacognition as a key to learning that consists of self-correcting thinking (Griffith & Ruan, 2005; King et al., 2012). Although this metacognition is critical for teaching practices, it is still rarely used (Curwen et al., 2010). As a result, to respond to 21st Century development, this teacher's teaching

strategy is critical in implementing HOTS to achieve the 21st learning goal. Thus, this strategy must be investigated further in order to improve the classroom practices and achieve the desired outcomes in the form of students' thinking skills.

In particular, the teachers' metacognitive regulation can be applied in several ways. One of them is through questions. The teachers' questions can beneficially stimulate the students' thinking process through their curiosity. As a tactful strategy to face the world demands of the 21st Century, HOTs-based questions can be an appropriate stimulus and a way to achieve its goal (Ginting & Kuswando, 2020). It becomes a critical way to give substantial attention to design the questions since these questions can help to enhance the students' thinking skills (Assaly & Smadi, 2015). In sum, the teachers' questions can help the teachers improve the teaching and learning process in their classrooms (Ahmadi & Kurniawan, 2020).

Relating to the metacognition phenomena and designing the questions to enhance the students' HOTs, it is essential to give substantial attention to the previous research related to these terms. Several studies have been done related to metacognitive regulation and HOTs. One of them comes from Hargrove and Nietfeld (2014). They focused on metacognitive instruction and creative problem-solving. Using an experimental study, they investigated an associative thinking in a problem solving. The associative concept here is closely related to a creativity. It described creativity as the associating of reciprocally distant associative elements of thought (Mednick's, 1962 cited in Hargrove & Nietfield, 2014). In line with this, De Backer et al. (2015) also provided a substantial attention to the metacognitive regulation through peer learning. Their study revealed that peer learning can potentially foster the students' metacognitive regulation, especially in their monitoring.

Furthermore, several researchers have also focused on the relation between the questions and thinking skills. For instance, Etemadzadeh et al. (2013) focused on examining whether asking questions significantly promotes the students' writing quality. Based on experimental research, this study revealed that the questioning technique remains effective in promoting the students to write and improve their

critical thinking through stages in organizing and developing their ideas. Then, Chen (2019) also examined the effects of pre-designed questions of the teachers as a tool to promote the students' development of critical thinking and their writing skills discourse level in English. From a sociocultural perspective, this study revealed that the teachers' questions significantly influence the students' necessary thinking development and increase their discourse level writing skills.

Based on the 21st Century demands that focus on thinking skills, it is essential to pay particular attention to them. In fact, most current studies mainly investigate the students' metacognition as the strategy to promote thinking skills (Anderson, 2003; De Backer et al., 2016; Rasekh & Ranjbary, 2003; Raoofi et al., 2014). However, there is limited inventory mainly referred to the teacher on examining their awareness of metacognition, such as how they think, talk, and write their thinking process (Zohar, 1999). Thus, focusing on the teacher's metacognitive regulation becomes an essential contributor to improve teaching and learning practices.

Specifically, several studies on the metacognitive regulation (De Backer et al., 2015; Bran & Balas, 2011; Hargrove & Nietfeld, 2014) are not emphasized to give substantial attention to the teacher's metacognitive regulation in designing HOTs-based questions. Therefore, to fill this gap, related to the 21st Century demands, it becomes essential to examine the EFL teacher's metacognitive regulation in designing HOTs-based questions. This study will suggest several stakeholders evaluate how the teacher's metacognitive regulation can promote the students' HOTs.

1.2   Research Questions

The research questions for this research were formulated as follows:

1) How is metacognitive regulation implemented by an EFL teacher in designing HOTs-based questions?

2) What are the challenges faced by the EFL teacher in designing the questions to enhance the students' HOTs?

3) What are the impacts of the teacher's metacognitive regulation in designing the questions on the students?

1.3 Objectives of the Study

The objectives of this research were formulated as follows:

1) To investigate how an EFL teacher's metacognitive regulation is implemented in designing HOTs-based questions.

2) To describe the challenges faced by the EFL teacher in designing the questions to enhance the students' HOTs.

3) To identify the impacts of the teacher's metacognitive regulation in designing the questions on the students.

1.4 Significance of the Study

This research will contribute many new insights relating to the EFL teacher's metacognitive regulation in designing HOTs-based questions, such as for English teachers, students, school, and future researchers as described below:

1) For English Teachers

It is hoped that this research serves as a reference for the teachers to regulate the process of planning, monitoring, and evaluating in designing HOTs-based questions to provide the best solutions to face the worldwide challenges of the 21st Century.

2) For Students

It is hoped this research will facilitate the students to enhance the thinking process in the form of HOTs. Specifically, they can think at a higher level of taxonomy level proposed by Anderson and Krathwohl (2001), which consists of analyzing, evaluating, and creating. Consequently, they can use this way to achieve the learning goals relating to thinking skills.

3) For School

It is hoped that this research will help many stakeholders, especially curriculum makers to improve the implementation of HOTs in the 2013 Curriculum by focusing on the teacher's metacognitive regulation.

4) For Future Researchers

It is hoped that this research will be used as one of the references to encourage future researchers to dig more about the teachers' metacognitive regulation in designing HOTs-based questions deeply.

1.5   Scope of the Study

This research focused on examining the EFL teacher's metacognitive regulation in designing HOTs-based questions, particularly the implementation, challenges, and impacts of the teacher's metacognitive regulation. Specifically, this research focused on implementing the teacher's metacognitive regulation proposed by Schraw (1998) as an arrangement of activities that is beneficial to maintenance, monitor, and control the learning process, including planning, monitoring, and evaluating.

This research was conducted in one of the senior high schools in Bandung involving one English teacher and 25 tenth-grader students. The main reason for the researcher in choosing senior high school is the students' HOTs in this level are essential to facilitate the students with real-life skills consisting of creativity and innovative skills (Ibrar & Mukhaiyar, 2020). Furthermore, the teacher was selected as the research participant due to the teacher's experience in teaching. This teacher's experience provided better instruction in the form of the questions to improve the students' HOTs in the classroom practice. Zohar (2013) stresses that the implementation of HOTs in classroom settings needs more substantial attention than adopting a new curriculum due to its requirement to change how teaching and learning practices are implemented. It requires the teachers' capabilities to deal with that phenomenon. To support this, most of the recent studies show that the experience of the teachers in teaching takes into primary consideration in building the teachers' metacognition (Lee & Teo, 2011). Lastly, the 25 tenth-grader students were selected because these tenth-grader students consisted of active students. The researcher believed that the active students were helpful for the teacher to implement this strategy in designing HOTs-based questions.

1.6   Clarification of Key Terms

1) Metacognition

Metacognition can be simply described as the process of "thinking about" (Adams & Mabusela, 2014). It refers to a recognition of what someone knows and it is followed by an understanding of the task and the required

skills and knowledge, and its implementation (Taylor, 1999 cited in Adams & Mabusela, 2014).

2) Metacognitive Regulation

Metacognition is divided into metacognitive knowledge and metacognitive regulation (Schraw, 1998). This research mainly focuses on metacognitive regulation. The metacognitive regulation itself is the actual activities that facilitate learning and memory and control an individual's thinking and learning. It covers several regulatory skills, such as planning, monitoring, and evaluating (Abdellah, 2015; Schraw & Moshman, 1995). These regulatory skills of metacognitive regulation are then classified into several parts, such as task analysis, content orientation, task perceptions, temporary planning, planning, comprehension monitoring, monitoring of progress, evaluating outcomes of learning, and evaluating the learning process and outcomes (De Backer et al., 2016).

3) Higher Order Thinking Skills (HOTs)

HOTs can be defined into three kinds of terms, such as transferring, critical thinking, and problem-solving. The transferring here means the students' process in constructing the meaning of what they have learned. Meanwhile, critical thinking means the students' process in reflecting thinking, and it determines what kind of actions they need to do. Then, problem-solving means the students' process in solving the problems or cases (Anderson & Krathwohl, 2001; Nitko & Brookhart, 2007 cited in Brookhart, 2010; Norris & Ennis, 1989 cited in Brookhart, 2010).

4) Teacher's Questions

Teacher's questions are an appropriate way to help students in several ways, such as reviewing the subject field, checking on comprehension, emphasizing points, controlling classroom practice, encouraging creativity, and stimulating critical thinking (Blosser, 2000). In classroom practice, the questions are seen as an instructional stimulation. It delivers

the learning contents and directions of the learning process (Cotton, 2001).

1.7 Thesis Organizations

Chapter I shows the background of the study, research questions, objectives of the study, significance of the study, scope of the study, clarification of key terms, thesis organizations, and concluding remarks.

Chapter II consists of the concept of metacognition, metacognition in language teaching, metacognitive regulation in language teaching, concept of higher order thinking skills, concept of bloom's taxonomy, development of bloom's taxonomy concept, relation between metacognition and higher order thinking skills, concept of teachers' questions, types of questions, dimensions of questions, characteristics of a good question, higher order thinking skills-based questions, importance of questions in teaching, previous related research, and concluding remarks.

Chapter III discusses the method that will be used in the research. It includes the research design, research site and participants, research instrument, data collection procedures, data analysis, and concluding remarks.

Chapter IV reveals the data findings of the study and its discussions, and concluding remarks.

Chapter V presents the conclusions of the study, pedagogical implications of the study, limitations of the study, recommendations, and concluding remarks.

1.8 Concluding Remarks

This chapter has mainly shown the introduction of the research. It covers several parts, such as the background of the study as the primary research basis, the research questions as the main point of the research investigation, which is inherently connected to objectives of the study, the significance of the study as new insights regarding the aims of the study, scope of the study as the central area of the study, clarification of key terms as the understanding of each term in this research,

organization of the paper as the arrangement of each part of this research, and concluding remarks which cover each point of this chapter.