

CHAPTER I

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Assessment has been playing a crucial role in the educational field since it is highly needed in the teaching and learning process. In order to monitor their progress in learning a language and identify their strengths and weaknesses, Tosuncuoglu (2018) asserted that assessments were helpful for students. The purpose of assessment, especially when it comes to evaluate the cognitive domain, is to observe students' progress and achievement in relation to what they have learned, in accordance with Royer et al. (1993), who treated assessment as a cognitive-based system with significant objectives like product of learning that develops cognitive skill. Assessment becomes a crucial part of learning about the process of what the students learned because neither the teacher nor the students would be aware of the outcome or output of the students after learning such material.

In the 21st century, students must be equipped with skills that can promote their cognitive competence. The improvement of human cognition is one requirement for mankind to be ready for the 21st century. To strengthen this notion, Care et al. (2018) stated that the goal of putting an explicit emphasis on 21st century skills in education is for students to be able to apply these skills to real-world scenarios. Six countries were involved in the activity's research phase, which was sparked by an alliance of international business organizations. Each framework addresses the question of what people need in order to function

successfully in society. It adopts a variety of perspectives, ranging from high-level to detailed, and from taking into account a wide range of human qualities to focusing only on aptitudes or skills (Care et al., 2018).

Furthermore, 21st century assessment and teaching in the educational world must put a strong emphasis on the core 21st century skills in order to adequately prepare students to face contemporary society, particularly in terms of working requirements, and continue to survive. Students must have a wide range of perspectives in the twenty-first century, from high to detailed, from general characteristics to specific competencies. Therefore, they (Care et al., 2018) asserted that a framework to achieve 21st century skills for students is required given that the issue has become global and research on the topic has been conducted by six countries as these 21st century skills are crucial due to the shifting in this globalization era, and as humans, every person involved in educational settings should own those skills to cope with the current digital era. A test of 21st century skills, one of which includes cognitive competencies, will need to be included in every assessment and even the teaching curricula in this situation.

It is clear that a rubric or main core is needed when measuring cognitive ability. Thus, Brookhart (2010) asserted that the taxonomy can help teachers remember the many important learning objectives and critical-thinking abilities that they want students to acquire. For any subject area, some people may usually want students to know a certain set of facts and concepts as well as be able to use these facts and concepts to think and reason in some way. Students are

transferring and transforming what they learned each time they use their knowledge to solve new problems or think creatively, which leads to an increase in their understanding (Brookhart, 2010).

The Bloom's Taxonomy is the most widely used taxonomy in the US and some other countries, according to Brookhart (2010), but she also included other taxonomies because they are all helpful for classifying learning objectives and assessments based on level of complexity. Additionally, according to Brookhart (2010), the teachers' instruction and assessment should be in line with the intended learning target or goal in terms of both content (what the students learn) and cognitive complexity (what the students can do with the learning).

In addition, knowledge, which was the easiest step in Bloom's taxonomy, was followed by comprehension, application, analysis, synthesis, and evaluation, which are the six steps that make up cognitive performance, according to Brookhart (2010). Knowledge was the easiest step. In a later revision of the Bloom's taxonomy, Anderson and Krathwohl changed the order to "remember as the lowest, understand, apply, analyze, evaluate, and finally create as the highest" (Brookhart, 2010).

Covacevich (2014) urged the assessor to carefully plan and consider the assessment instrument that was being used in addition to using taxonomy as the measurement foundation when developing an assessment that evaluates students' achievement. According to Anderson (2003), the assessor must establish a logical justification for why the assessment is being conducted, what information the assessor needed, when the information was needed, and how the information is

being collected. These are the factors that should be taken into account before assessing. In order to assess these factors in a reasonable amount of time and in a reasonable manner that is suitable for the assessors' desire to track students' understanding in class, it is advised to exercise caution and take into account knowing what, why, who, when, and how to assess. The evaluation will therefore be beneficial to the organization, the teachers, the students, and their parents.

To learn more about the state of these instruments' application, it is necessary to have information on the most recent cognitive competence assessment tools. This study compared and divided the results of previous studies or common problems to determine the potential for creating a new product. This study began by using information from earlier ones. For instance, Dewi (2018) discovered that, even though multiple choice tests based on C1 were still necessary, need analysis had already identified the need for practical assessment tools rather than just written tests. On the other hand, Erna (2020) tried to keep the multiple choice distracter that concentrated on using the cognitive based instrument by making it more challenging. The majority of the evaluation tools used in South Sulawesi's bachelor programs, according to Erwin and Muhsin (2020), continue to use the written, conventional C1-C2 scale and do not include a higher order thinking scale. Due to the assessment instruments' underutilization of cognitive competencies and critical thinking, Sumarni et al.'s (2018) study, which attempted to develop cognitive-based assessment instruments for the senior high school level, was supported by their findings. Agustina et al. (2020), who discovered that the HOT assessment implementation had not been developed in

the school area, came to similar conclusions. Contrary to Misykah & Adiansha's (2018) study which claimed that students needed to master the HOT and cognitive competences in order to be ready for a 21st-century lifestyle.

On the other hand, Abosalem (2016) and Heong et al. (2011) asserted that the majority of assessments still focused on the level of remembering which required students to recall what they had learned. According to Abosalem (2016) and Heong et al. (2011), this type of output differs from high order thinking assessment, which covers the taxonomy level of analyzing, evaluating and creating. These kinds of assessment focuses on having students apply their knowledge in real-world settings or even create something by combining what they have learned. In addition, a study started in 2010 by Bell et al. (2010) and the majority of earlier studies on the advanced years up until the present still asserted the requirement for alternative assessment tools of the type that measure the high order thinking cognitive domain and an assessment activity that focuses on a real-life performance situation by practicing rather than using pen and paper or traditional assessment (Bell et al., 2010; Shenoy, 20).

To conclude, using previous studies as evidence, it is obvious that the majority of earlier studies on the external side made a clear recommendation in which they hoped that future assessment tools that aimed to gauge students' cognitive level, particularly high order thinking skill, would begin to involve students in applying and using what they had learned in a practical, real-world setting rather than just on the remembering stage. It can be seen from comparing and combining the aforementioned previous research that assessment instrument

infused with cognitive competences are still not being developed in English language education study program. When considering the needs, it becomes clear that written assessments are rarely thought to be able to accurately measure students' cognitive abilities, despite being the most popular instrument type in doing so. The improvement of assessment tools that do not rely on written tests, such as multiple-choice or essay questions, but rather on performance-based evaluations that are intended to gauge students' cognitive abilities is suggested by the studies mentioned above.

Based on differences from earlier research, this study aims to develop assessment instruments infused with cognitive competences that are targeted in grammar classes of English language education study program. The current study differs from earlier studies in that it was conducted in English language education study program and infused the Cognitive Domain Taxonomy. It also differs from earlier studies in that it used different instruments and participants. Since high order thinking skill as cognitive domain serves as the foundation for the cognitive competences aspect of critical thinking, problem solving and decision making, it is necessary to analyze the information about the existing assessment instruments in order to determine the factors of assessment instruments that should be developed.

1.2 RESEARCH QUESTIONS

To respond the explanation and situation of the background elaborated above, the researcher formulated research questions as main and sub-questions.

The research main question was: How were assessment instruments infused with cognitive competences for grammar classes of English language education study program?

Meanwhile, the sub-questions of the study were:

1. To what extents did the existing assessment instruments of Grammar classes in English language education study program infuse cognitive competences?
2. How were the designs of Table of Specification (ToS) of Grammar assessment instruments infused with cognitive competences in English language education study program?
3. How were the designs of Grammar Assessment Instruments infused with cognitive competences in English language education study program?
4. How was the validation of Grammar Assessment Instruments infused with cognitive competences in English language education study program?

1.3 PURPOSES OF THE STUDY

Based on the formulation of research questions presented previously, the main purpose of the study was: To design cognitive competences assessment instruments for grammar classes of English language education study program.

The sub purposes of the study were:

1. To analyze the infusion of cognitive competences in the existing assessment instruments of Grammar classes for English language education study program.

2. To design Table of Specification (ToS) of grammar assessment instruments infused with cognitive competences for English language education study program.
3. To design Grammar assessment instrument infused with cognitive competences for English language education study program.
4. To validate the Grammar Assessment Instruments infused with cognitive competences for English language education study program?

1.4 SIGNIFICANCES OF THE RESEARCH

Significances of this research were divided into theoretical and practical aspect as follows:

1. Theoretical aspects

- It was expected to be useful for information for the students who want to design the Cognitive Competences-integrated assessment instruments of standardized test in Grammar Classes of English language education study program.
- The result of this research was expected to Give contribute to the development and designing the Cognitive Competences-integrated assessment instruments of standardized test in Grammar Classes of English language education study program.

2. Practical aspect

- It can be references for the English teacher, especially in designing the Cognitive Competences-integrated assessment instruments of standardized test in Grammar Classes of English language education study program.
- The next researcher who wants conduct the similar research, it can be reference.
- It can add new experience for the students in learning process and result especially in designing the Cognitive Competences-integrated assessment instruments of standardized test in Grammar Classes of English language education study program.

1.5 SCOPE OF THE STUDY

This study focused on developing the assessment instruments infused with Cognitive Competences for grammar classes of English language education study program. This study was conducted to analyze the use of Cognitive Competences of the existing assessment instruments, to elaborate the procedures of the infusion of Cognitive Competences into assessment instruments both in Midterm Test and Final Test in grammar classes of English language education study program, To design the assessment instruments infused with Cognitive Competences in grammar classes of English language education study program.

The data was obtained from four English language education study programs in four different universities. The existing assessment instruments were then analyzed to identify the test format, test items level of taxonomy and

cognitive competences. After that, the gaps between the existing assessment instrument and the indicators of the Cognitive Competences which were critical thinking, problem solving and decision making were identified. The identification results were used to develop assessment instruments infused with cognitive competences for Grammar Classes of English language education study program. Developed assessment instruments were midterm and final test of Advanced English grammar course. The tests were then validated based on experts' judgement.

