CHAPTER I

INTRODUCTION

This chapter presents introduction of the study, including background of study, statement of research questions, purposes of the study, scope of the study, significance of the study, clarification with related terms and state of art.

1.1 Background of the study

An assessment instrument is essential component in language teaching and learning. Assessment Instruments are designed as a part of an assessment tool to assess someone's performance after following a certain process in the classroom (Moran, 2017). Most of the instruction activities in the classroom were conducted in class in front of students and most of the assessment processes were performed in class with paper and pencil tests (Marina, 2015). The format frame considers a broad outline of the test is what skills that will be tested, and what the items will look like (Brown, 2004). It is offered as a model in which teacher can present overall information about test. The overall features of a test to provide of how specifications are used in practice (Cheng & Fox, 2017).

Tests are one important tool for gathering assessment information. There are many other information gathering tools, including projects, portfolios and written test as techniques of observation and oral questioning (Russell & Airasian, 2012). Each type of test items has its own unique characteristic, uses, and advantages, limitations, and rules of construction (Miller et.al, 2009). There are several types of test items to the simpler form of objective test items, such as short-answer items, true-false or alternative-response items, and matching

exercise. As teacher, it is important to know the categories of each type of instruments in order to understand the most appropriate for the assessment purposes (Covacevich, 2014).

The transformation of quality assessment for the 21st century underpin in three developments, such as; new thinking, new metrics and new technologies. New thinking relates to how assessment monitors learning. The fundamental purpose of assessment is to determine and understand where learners are in an aspect of their learning at the time of assessment. Assessment clarifies what the learner knows, understands or can do, and highlights what is needed to progress the learner to the specified standard of accomplishment at the end of the year or band of development. Then, new metrics represents assessment of a broader range of skills and attributes to address by most contemporary assessment practices (CSAWP, 2016). While, new technologies have the potential to transform assessment practices, for example is real-time interaction classroom assessment in online learning. In enriching assessment instrument, Marina (2015) suggests in supporting educational assessment practice is applied using Information and Communication Technology (ICT).

Nowadays in IR 4.0, ICT can be employed in addition to be used as a tool for traditional assessments exchanged into conventional assessment to increase the potential for assessing 21st century skills (Asri, 2019). The assessment instrument can be conducted using ICT tools in either the offline or online setting (Marina, 2015). ICT being applied to support instruction, learning and assessment processes (Shan Fu, 2013).It can help in scoring students' assignments, such as

multiple-choice tests and marking reports, essays and projects (Marina, 2015). However, ICT in assessment offers some benefits in many ways such as, saving time and paper, effective and efficient test administration and an automatic marking process. It also benefits students in that the test can be conducted at any available time. In the testing process are more feasible and efficient and test scoring more fair and accurate (Marina, 2015).

Since the rapid development of ICT is continuously transforming the way in which daily life, work and learns, specifically for education. The role of ICT in education is becoming more important and this importance will continue to grow and develop in the 21st century (Srivastava, 2016). Ferrari, Punie and Redecker, (2012) stated skills life in 21st century that students need to acquire such as problem-solving, reflection, creativity, critical thinking, learning to lean, risk-taking, collaboration and entrepreneurship are becoming increasingly important. ICT used as an assisting tool for these skills example while conducting research (Bhattacharjee & Ded, 2016).

Nowadays, research skills and ICT competences is inseparable. However, research skills are among the most necessary skills in the field of academic writing (Topalov and Bojanić, 2013). As stated in Policy Ministry of Education and Culture No 3 of 2020 as the new one the National higher education standard, students should be able to conduct a research and publish a paper as a part of the learning outcomes in a university with emphasize ICT (Tim Penyusun KKNI Dikti, 2020). In conducting research according by Sari *et.al* (2018), the development of research skills should be in line with the demands of the 21st

century, where components in learning that include knowledge work, thinking tools, digital lifestyles, and learning research. One of the first steps is finding references and relevant sources of information that will be of use as a foundation for the new research. Students use a variety of technological and information resources (e.g., libraries, data bases, computer net works, video) to gather and synthesize information and to create and communicate knowledge.

Research is motivated by curiosity or a need to know about how things are, and what they do or may do. Research skill required through a series of research activities in helping students to critically examine a problem, generating and evaluating data, ideas, and hypotheses of relevant data, forming and testing, and succeeding in producing a conclusion Sari *et.al* (2018). Moreover, a research consists of several components, namely: research background, procedure, collect data, research findings and discussion, and publication (Cryer, 2006). Research is conducted according to the researcher's goal, their purpose, and the paradigm they are operating from within.

On the other hands, several studies indicated skills emerge in some proficiency in educational field**.** These limitations are appropriate methodology concept, how to write academic paper, how to implement learning design, how to analyze the data, and lastly, how to investigate the data. Start from the study by Topalov and Bojanić (2013), they establish how developed students' research skills are in a university academic context. Students' academic research skills are much better understood if contextualized by their everyday habits in using the Internet, both for academic and non-academic purposes.

Prahmana & Kusumah, (2016) defined several limitations that students encountered in each phase were found to enhance students' skills and academic writing skills through the learning trajectory which has been designed previously using research-based learning model. Those limitations are: appropriate methodology concept, how to design a lesson and research instruments, how to implement learning design, how to analyze the data, and lastly, how to write academic paper.

Dowse and Howie (2013), conducted within the framework of design research, sought to design and develop an academic research writing intervention. They developed six indicators of research skills that are classified into 5 levels of research by Willison and O'Regan framework. This limitation make students research skills are still on level 1 and 2 based on the framework developed by Willison and O'Regan (2007).

The study comes from Ismail & Meerah (2011). This study describe here is to evaluate the outcome of doctoral students studying either locally or abroad competency in research. They classified research competencies into five grouped, such as; research capacity, reflection skills, problem solving skills, communication skills, and research methodology skills.

In addition, the continuous research by Meerah, Osman, *et.al* and Zakaria (2012) conduct the research in developing an instrument to measure research skills which is need to measure students' deficiencies in preparation to conduct doctoral research in order to provide guidance and training. This study was used a diagnostic instrument to identify the competencies in research knowledge and

skills. There were five ranges of skills necessary for learning research that should be constructed such as; statistical or analysis skills, information seeking skills, problem solving skill, communicating skills, and research methodology skills.

Moreover, another study is about Research Skills which the research was conducted by Ola (2018). In this research investigated the relationship between research skills and ICT application on sustainable library development. In terms of the extent of research skills of librarians in university libraries for sustainable library development, the study revealed that high level of research skills is needed by librarians. These include problem solving skills, information dissemination skills, analytical skills, critical thinking skills, computer skills and research data management (RDM) skills.

However, the skill of learning research is one of important component in improving students' learning to conduct research in academic word (Topalov &Bojanić, 2013). Research skills today must be developed in such a way that students in higher education will be enabled to make them their own for good (Martinez and Montoya, 2021). It is explicitly demand the undergraduate students to explore research skills competencies integrated ICT competences in learning. Thus, when students possess these skills, it would be easier for them to do a research. Therefore, this study attempted to reveal the research skills relevant in the assessment instruments of research methodology subjects offered for undergraduate students on ELESP.

1.2 Research questions

Based on the background of study elaborated above, this study formulates the research questions which is to what extent do the existing assessment instruments of research methodology subjects for undergraduate students of ELESP make use research skill indicators and ICT competences. The main research questions are elaborated into several sub-research problems, as follows:

1. What research skills indicators and ICT competences are relevant to be developed for of ELESP students?
2. Which research skill indicators and ICT competences have been integrated in the existing assessment instruments for the ELESP students?

1.3 Purposes of the study

Based on the research questions mentioned above, this study aimed at identifying relevant research skills indicators and ICT competences to be developed for undergraduate students of ELESP. The study was also meant to find out empirical data on the integration of research skill indicators and ICT competences integrated in the assessment instruments of research methodology subjects for undergraduate students of ELESP. In short the research purposes are stated as:

1. To identify the relevant research skills indicators and ICT competences relevant for undergraduate students of English Language Education Study Program (ELESP) proposed in the pertinent literature and references.

2. To analyze and describe the integration of research skills indicators and ICT competences integrated in the existing assessment instruments of research methodology subjects for undergraduate students of ELESP.

1.4 Scope of this study

This study focuses on identifying research skills and ICT competences in assessment instruments of research methodology subject for undergraduate English language education study program (ELESP). This study obviously conducted to identify and describe research skills and ICT competences relevant for undergraduate students on English Language Education Study Program (ELESP) and to reveal the research skills and ICT competences inserted in the existing assessment instruments of research methodology subject offered for undergraduate students on ELESP. This study employed descriptive qualitative with content analysis as research design.

1.5 Significance of the study

This study hopefully expects to give some contribution and consideration both practical and theoretical. From a practical point of view, this study will provide consideration for lectures of the English Education Study Program (ELESP) in identifying research skills indicators and with ICT competences. Whereas theoretically, this study will be one of the considerations as the reference in identifying ICT competencies integrated research skills assessment instruments for ELESP.

1.6 Clarification of related terms

Research skill required through a series of research activities in helping students to critically examine a problem, generating and evaluating data, ideas, and hypotheses of relevant data, forming and testing, and succeeding in producing a conclusion. The description of research skills indicators is thoroughly the explained by RSD from Willison and O'Regan, Research skill framework from University of OTAGO, and another framework by Thomas (Adapted from Easterby-Smith et al., 2002).

Assessment instruments often referred as the tasks to be administered to the student, the outline of the evidence to be gathered from the student and the evidence criteria used to judge the quality of performance in educational fields of classroom teaching and learning. For components of Assessment instruments, the components elaborated by the experts above there are 8 different components. The researcher simplifies become 5 main components such as; instructions, test format, administration, time allocation and scoring.

Information and Communication Technology (ICT) integration becomes an important role in education. Teacher should comprehend and literate in using ICT in teaching and learning process. UNESCO stated that technology integrated in education since 2002 in which the process of teaching and learning supported by ICT. The framework of ICT stated by UNESCO divided into three approach; technology literacy, knowledge deepening, and knowledge creation. Anoher framework is EPG that used in the key teaching competences. European Profiling Grid (EPG) is an instrument that is used to describe the main competences of

language teachers and presents in tabular form spanning six phases of development which are grouped into three main phases of development are novice teachers, experienced teachers, and expert teachers

1.7 State of the art

This study is expected to give contribution for the educational field especially in research skills competencies and ICT based development area, also the assessment instruments. This study focuses on identifying and research skills ICT competences in assessment instruments of research methodology subject for ELESP. This research will provide research skills framework and ICT competences as the main source in identifying assessment instruments of research methodology subject.