CHAPTER 1

INTRODUCTION

This chapter begins with outlining the background of the research. It then presents information about the research question, research objective, operational definition, and significance of the research.

1.1 Background of The Research

Vocabulary learning constitutes the foundation of first (L1) and second/foreign language (L2) learning in that knowledge of vocabulary is essential to help L1 and L2 learners develop a high level of mastery in using the target language. With respect to L2 vocabulary teaching, there are several techniques that teachers can use to facilitate L2 vocabulary learning. These include, for instance, a visual technique, verbal exploration, use of definition, and use of games (Gairns & Redman, 1986). It is worth noting, however, regardless of which technique the teacher uses in teaching L2 vocabulary, the way that the technique is implemented in the classroom (or in other instructional settings) needs to ensure that it can help learners engage in deep processing for meaning. As Laufer and Hulstijn (2001) argue, deep processing of meaning is essential to help L2 learners be able to use target L2 words accurately and fluently in a wide range of communicative contexts.

There are many ways as to how deep processing for meaning may be facilitated in L2 vocabulary instruction. With young beginner-level L2 learners, however, a number of studies have indicated that the use of pictures and/or realia is effective to induce deep processing during L2 vocabulary instruction for

meaning for this particular group of learners (see e.g., Rasuki, 2017; Shintani, 2011). Furthermore, the use of these media (i.e., pictures and/or realia) in the context of L2 vocabulary instruction made more engaging through games (Allen, 1983).

There are many advantages of using games in teaching L2 vocabulary to young beginner-level L2 learners. According to Uberman (1998), games can lower anxiety and are highly entertaining for young beginner-level L2 learners. Furthermore, games can also provide ample opportunities for this group of L2 learners to practice using target L2 words in authentic ways (Rasuki, 2017; Shintani, 2011). With respect to L2 vocabulary learning, such a range of advantages can make target L2 words to which the learners are exposed during the instruction get processed successfully in their working memory before being stored in and/or recalled from their long-term memory (Lambert, et al. 2021).

To this end, good learning situations amount to situations where learners are enabled to process specific information in their working memory and are facilitated to store the information in their long-term memory for future recall (usage). In this way, the notion of "learning"--in its broadest sense--is largely governed by cognitive systems which involve, among other things, learners' working or short-term memory and long-term memory (Baddeley, 1997; N. Ellis, 2001; Robinson, 1995).

It is worth noting, however, that working memory is limited in its capacity to process information (Robinson, 2011; Skehan, 2018). Such limitation typically makes certain information that learners receive from their learning environments fail to be processed in their working memory. Likewise, although particular

information is successfully processed in the learners' working memory, the information may not be successfully stored in their long-term memory in ways that facilitate future recall (N. Ellis, 2019).

Within the context of L2 vocabulary learning, for instance, specific L2 words that learners encounter while engaging in *reading* or *listening* activities might differ to the extent of which these words are processed in their working memory before being stored in their long-term memory. Such a difference might be due to *the availability variable* (i.e., the extent of which target L2 words are present [or available] during the course of processing). In the case of 'reading', learners are usually able to spend as much time as they want to look at and process target L2 words as they appear on a page. Hence, processing is quite easy during reading. In the case of 'listening', on the other hand, learners do not have such resources. That is, L2 words that learners encounter during listening are usually present (or available for processing) only within a fraction of a second. Hence, learning new L2 words by way of listening is usually much more difficult than learning new L2 words by way of reading (see Rasuki, 2020, Ch. 3, for details).

In addition to 'the availability variable', researchers within the field of applied linguistics and educational psychology have also claimed that *the amount of information* to which learners are exposed during instructional activities can also determine the degree of success of their processing of target information or instructional materials (Robinson, 2011; Sweller, 2010). Within the context of L2 vocabulary learning, for instance, getting learners to process a range of linguistic features associated with the use of particular L2 words *simultaneously* (e.g., lexical, grammatical, phonological and semantic features) is likely to impose a

high level of processing load as compared with getting them to process this range of linguistic features *one at a time*. Sweller (1988) developed a Cognitive Load Theory to help account for these possible differences in the learner's ability to process certain information associated with certain instructional materials (see also Sweller, 2020; Sweller, et al. 2011, for the recent development of Cognitive Load Theory). Although the Cognitive Load Theory that Sweller developed proves useful in the process of designing and implementing instructional materials of various subjects, relatively few have been done to investigate how L2 instruction may benefit from this theoretical insight as well. The present study, therefore, aims to fill this gap by investigating whether differences in intrinsic cognitive load affects L2 learning differently as reflected in young Indonesian EFL learners' ability to recall English words in subsequent contexts of usage.

1.2 Research Question

Based on the background of the research above, the questions for this study are formulated as follows: Do levels of intrinsic cognitive load as manifested in the amount of information associated with the use of particular L2 words differ in facilitating L2 word (vocabulary) learning as reflected in young EFL learners' ability to recall target L2 words in subsequent contexts of use?.

1.3 Research Objectives

Based on the research question formulated above, the present study thus aims to examine whether differences in the level of intrinsic cognitive load affect young EFL learners' ability to recall and use target L2 words.

1.4 Operational Definitions

There are two terms that need to be operationally defined to provide clear illustration about the variables.

1.4.1 Intrinsic Cognitive Load

Intrinsic Cognitive load in this study refers to the ability of students to process the content of information received during the learning process. The element of interactivity in the content will provide a difference that affects the extent to which students are able to process the information received.

1.4.2 Short-term Memory Recall

Short-term memory recall is a memory system in which a small amount of information is stored and processed over a very short duration.

1.5 Significance of the Research

The result of the study is expected to be useful theoretically and practically.

1. Theoretical Benefit

The results of this study can be the basis for developing instructional media or further application of instructional media. In addition, it is also an added value for scientific knowledge in the field of education in Indonesia.

2. Practical Benefit

The results of this study can provide a new perspective for teachers in making instructional designs for young EFL students.

1.6 Scope of The Research

This research focus on investigate the effects of intrinsic cognitive load on young EFL learners' short-term English words memory recall. The reasearcher

use Elementary school students at SDN Slawu 02, Jember as an experimental class.