

CHAPTER I

INTRODUCTION

This chapter discusses the research background, problem identification, limitation of the problem, research question, research objective and the research significance.

1.1 Research Background

Reading comprehension is key to the students' reading skills development. Reading comprehension becomes the basic reading competence that attains the meaning or information through comprehending a text (Snow, 2002). Reading comprehension in language learning is essential to ease readers understand what they have read (Razalli et al., 2018). It is a process of constructing the meaning of written communication between text and readers (Broek & Espin, 2012; Ertem, 2010). Gilakjani (2017) has stated that the outcome of reading comprehension is the mental representation (understanding) of a text meaning which is associated with the readers' previous knowledge.

Reading comprehension can be achieved through several reading strategies. Those strategies, i.e., questioning, making inferences, making connections between the prior knowledge and text, visualization, and summarizing (McEwan, 2007; Shanahan, Callison, Carriere, Duke, Pearson, Schatschneider, Torgesen, 2010). From those strategies, visualization is one of the crucial strategies in achieving good reading comprehension.

Visualization becomes another essential component of reading comprehension as the construction of a mental image of a text. Since the early ages, humans use visualization as a significant way to express their needs and feelings (Bicen & Beheshti, 2017). In line with this statement, Ozdal and Ozdamli (2017) and Yildirim (2016) described that visualization helps students to grasp the information, attract students' attention, motivate students, facilitate complex and summarize ideas to be learned effectively, give interactive learning environments and help to recall information. It can be inferred that visualization is a meaningful strategy to visualize the information or ideas in constructing good reading comprehension.

In the 21st century, a lot of teaching media can be used to deliver and visualize information or ideas. One of them is an infographic. Infographics have become more popular in today's education field as the media of learning. It is because infographics help encouraging students' reading comprehension (Davis & Quinn, 2014). Peter Sullivan in 1970-1990s developed the term of infographics when the utilization of infographics increased for The Sunday Times Newspaper. The terminology of infographics derived from two words "information" and "graphics". (Bicen & Beheshti, 2017).

According to Davis and Quinn (2014), an infographic is a modern written artifact of collected information that is visually presented in the form of a modern design. Al-Mohammadi (2017) argues that an infographic is a medium to share complex information effectively. In the same line, Dahmash, Al-Hamid and Alrajhi (2017) state that an infographic is a visualization media of ideas in the form of pictures by combining design and information to transfer information understandably. An infographic is a combination of a brief explanation with

visualization to construct a message and easy to be understood (Alrwele, 2017; Naparin & Binti Saad, 2017). Thus, an infographic is a kind of medium with combining of information which is used graphics, arts or pictures to convey and deliver information concisely so that the reader can understand it easily.

Besides helping students understand the information, the integration of infographics has been proved to provide several benefits for teaching and learning activities. Yıldırım (2016) has mentioned the benefits of an infographic, i.e. (1) infographic can facilitate teachers to teach basic knowledge of the lesson; (2) learners are easier to understand information through visualization; (3) the learners take a short time to obtain information, and (4) infographic is more constructive rather than textual materials since it is also beneficial for students to organize the main idea and represent their understanding related to the text. Since students should organize complex information in the form of infographics, infographics are beneficial to improve students' critical thinking skills (Bocuru, 2015).

In the field of English language teaching, several researchers have also proved that infographics have a positive impact on and enhance EFL learners' reading skills (Cupita & Franco, 2019; Manowong, 2017; Kongwat & Sukavatee, 2019; Supraba & Silvana, 2020). Manowong (2017) has revealed that the use of infographic assignments by using Canva and Padlet enhances EFL students' comprehension and motivation. Kongwat and Sukavatee (2019) also conducted a study to investigate the effect of collaborative reading instruction using infographics at eleventh graders of public schools in Bangkok and found that infographics significantly impact students' reading comprehension. Cupita and Franco (2019) studied the use of infographics as learning media to engage the

reading process from literal to the critical reading of EFL university students in a rural area of Colombia. The result showed that infographics could engage students' reading skills. In the same line, Supraba and Silvana (2020) investigated the impact of infographics as summarizing media on EFL learners' reading comprehension in Indonesia and revealed that infographics motivated and improved students' reading comprehension.

In the context of the digital era, the utilization of infographics is appropriate to be integrated into the teaching and learning activities because it emphasizes on the use of technology. Bicen and Beheshti (2011) argue that the development of technology around the world changes students' learning styles to reach information. Most students are interested in reading information from social media (Bicen & Beheshti, 2017). The development of new technology has brought a new path of learning style, which allows different styles and structures in transferring teaching materials (Ozdamli & Ozdal, 2017; Papatga & Ersoy, 2016). Since today's students are known as digital natives who usually interact with technology in their lives, the use of infographics as a learning media seems to fit these students' characteristics.

Besides the use of technology, 21st-century learning is also demanded to promote and foster 21st-century skills, one of which is collaboration (Trilling & Fadel, 2009). Therefore, teachers are required to apply innovative teaching strategies that could engage students in collaborative activities. One of the innovative learning strategies is cooperative learning. According to Kagan and Kagan (2009; cf. Aronson, 2002), cooperative learning is a learning method that enables students to do collaboration to achieve their learning objectives. Cooperative learning is a teaching method which allows students to work in small

groups and help each other in their learning (Slavin, 2008). Specifically, related to EFL reading, Nakagawa (2006) mentions that cooperative learning in teaching reading for EFL learners creates meaningful learning to students' language acquisition.

Several types of cooperative learning could be applied in EFL teaching and learning activities; one of them is Jigsaw. Jigsaw is a specific type of group learning experience, where each student must cooperate and participate with his/her group's members to achieve the group's learning objectives (Aronson, 2002). In the context of EFL reading, several researchers have studied the effect of Jigsaw in various instructional modifications, different settings, different samples, and different reading topics (Kardaleska, 2013; Kazemi, 2012; Namaziandost et al., 2020; Nurbianta & Dahlia, 2018; Refai, 2012; Saputro, 2018; Surahmawati et al., 2016; Tahrin et al., 2017), and; the results of those studies have revealed that Jigsaw has a positive and significant effect on EFL students' reading comprehension. These results support Aronson's (2002) theory that Jigsaw has some learning benefits, i.e. encouraging listening, engagement, and empathy and help students to learn deeply about the lesson.

Aronson (2002) has mentioned several steps to implement Jigsaw in teaching-learning activities. The steps are: (1) divide the students into 5-6 people in a group; (2) appoint one student from each group as the leader; (3) divide the day's lesson into 5-6 segments; (4) assign each student to learn one segment; (5) give students time to read over their segment; (6) form a temporary "expert group"; (7) bring the students back into their jigsaw groups; (8) ask each student to present his/her segment to clarify the missing information; (9) float from group to group, observing

the process; and (10) give the quiz at the end of the lesson (Aronson, 2002). An interesting thing to point out is that Jigsaw has been implemented in various ways by different researchers and teachers (Mengduo & Xiaoling, 2010). Some modifications of the Jigsaw's steps could be done by considering the difficulties that teachers and students who participate in the classroom have (Mengduo & Xiaoling, 2010). Thus, it could be inferred that the implementation of Jigsaw in the classroom can be modified based on relevant objectives of teachers.

Furthermore, Kagan and Kagan (2009) has mentioned that Jigsaw's steps are flexible to be modified into several variations. Another variation of Jigsaw is that when the students have discussed their paragraph in their expert groups (step 8), the students return to their home group and they are given a worksheet or questions that demand them to synthesize or summarize the information of the whole paragraphs (Kagan & Kagan, 2009; Mengduo & Xiaoling, 2010). This flexibility of Jigsaw implementation opens an opportunity for the integration of infographics into this step of synthesizing and summarizing information. It is so since one of the functions of infographics is as media of visualization and summarization of data (Davis & Quinn, 2014).

However, the existing literature shows that there are still a few studies that have investigated the integration of infographics and other mind map-related learning media into Jigsaw. Among these few studies are Sulistiawati and Sriyati (2016) who investigated the implementation of Jigsaw with mind map assignment in improving the biology concepts and creative thinking abilities of senior high school students in Indonesia. Another study was conducted by Márquez, Llinas and Marcias (2017) in Spain who investigated the effect mind map integration in the

last step of the Jigsaw technique on pre-university secondary students' physics concepts. Next, Rahayu, Suma, and Arnyana (2018) investigated the effect of Jigsaw assisted with mind map towards seventh junior high school students' science learning outcome and self-efficacy. A quite similar study by Nashiroh, Ekarini, and Ristanto (2020) also found a significant effect of Jigsaw assisted with concept map on university students pedagogical concepts, ability and self-efficacy.

These studies have revealed that the integration of mind map-related learning media into Jigsaw has become an interesting research topic in the educational field; however, to the knowledge of the researcher no research on the same topic has been done in the context of English language teaching. Therefore the current study is intended to fill this gap by investigating the impact of the integration of infographics into the last step of the Jigsaw procedure, that is, summarizing information of the whole paragraphs (Kagan & Kagan, 2009) towards Senior High School Students' reading comprehension in one of the state Senior High School in Singaraja, Bali, Indonesia. The research was conducted in the middle of the covid-19 pandemic, where the teaching and learning activities were conducted online in the school.

1.2 Problem Identification

Related to the existing theories, Davis and Quinn (2014) state that an infographic is the learning media that can be integrated in the teaching reading to enhance students' reading comprehension. Moreover, Aronson (2002) argues that Jigsaw is an effective teaching strategy that employs collaboration to enhance students' reading comprehension. Kagan and Kagan (2009) further develop several variations of Jigsaw's steps. Another variation of Jigsaw is that when the students have discussed their paragraph in their expert groups, the students return to the

home group and they are given a worksheet or questions that demanded them to synthesize or summarize the information of the whole paragraphs (Kagan & Kagan, 2009; Mengduo & Xiaoling, 2010). Therefore, infographics could be inserted in this step since one of the functions of infographics is as a medium of visualization and summarization of data (Davis & Quinn, 2014). However, there are still a few studies have proved that the modification of Jigsaw with a learning media such as mind map has a positive effect on students' reading comprehension. For that reason, it is essential to investigate and confirm whether the integration of infographics into Jigsaw strategy has an impact on students' reading comprehension.

1.3 Limitation of the Problem

Based on the problem identification, the focus of the study is investigating the impact of infographic towards EFL Learners' reading comprehension in online Jigsaw-based reading instruction setting. Since the study was conducted during the Covid-19 pandemic, all of the settings employ online learning. The online Jigsaw-based reading instruction setting was aided with Schoology and integrated with infographics aided with Canva application. The sample of the study was Indonesian EFL at tenth-graders of SMA Negeri 1 Singaraja, and the learning material is about teaching recount text related to biography. Therefore, this research was limited by the setting, the learning media, the sample and the type of reading text which are used in this research.

1.4 Research Question

Based on the problem identification, the research question of this study can be formulated as follows:

"Is there any significant impact of infographic towards Indonesian EFL learners' reading comprehension in an online Jigsaw-based reading instruction setting at SMA Negeri 1 Singaraja?"

1.5 Research Objective

Based on the research question, the study aimed to prove whether infographic has a significant impact towards Indonesian EFL learners' reading comprehension in online Jigsaw-based reading instruction setting at SMA Negeri 1 Singaraja.

1.6 Research Significance

The results of the research are expected to have some contributions in both theoretically and practically. Its significance can be described as follows:

1.6.1 Theoretical Significance

The results of the study are expected to enrich the existing literature on theories of Jigsaw and infographics in the context of EFL reading instruction.

1.6.2 Practical Significance

1) For EFL Teachers

The results of this study are expected to enrich the information about the effect of infographics and its implementation for teaching EFL learners' reading comprehension of tenth-grade students. Moreover, English teachers know an innovative strategy to teach EFL reading comprehension skills.

2) For EFL Teachers' Educators

The results of the study are expected for the EFL teachers' educators to adopt infographics in online Jigsaw-based reading instruction for teaching reading comprehension to the teaching methodology courses.

3) For Materials' Developers of Online EFL Reading Lessons

The results of the research are expected to contribute and enrich ideas for material developers, especially in the context of teaching reading online to develop learning and teaching materials related to the EFL online reading lessons.

