CHAPTER I
INTRODUCTION

1. 1. Research Background

Fake news or hoaxes are frequently found in media such as viral innovations without real realization. One of the examples is the flat earth phenomenon. This phenomenon is a form of great and widespread distrust of institutions and authorities which then triggers discussions of misinformation about science being spread through social media and how to deal with it. This phenomenon emerged through videos on the YouTube platform such as "Flat Earth Clues" by Mark Sargent and "200 Proofs the Earth is Not a Spinning Ball" by Eric Dubay. A study conducted by Landrum, Oshansky, & Richard (2019), reported the results of interviews to the Flat Earth Community at the First International Flat Earth Conference, that after seeing related videos on Youtube they conducted their own research and found that they believed we do not live on a "spinning ball" (Landrum et al,2019; Olshanky, 2018). Understanding biased information contributes to understanding the gaps between what scientists know and what the public believes, this is often a key issue in science communication research (Akin & Landrum, 2017). According to the scientific group, low scientific knowledge is the reason the public finds it difficult to accept established science that already exists (Bauer et al, 2007 in Landrum et al, 2019). Even though it is done clearly, the interpretation of scientific information often depends on the values, beliefs, and perspectives of the community (Brossard, Scheufele, Kim, & Lewenstein, 2009; Landrum, Hallman, & Jamieson, 2019; Landrum, Hilgard, Lull, Akin, & Jamieson, 2018; Nisbet & Scheufele, 2009; Yeo, Xenos,

Brossard, & Scheufele, 2015).Therefore, science needs to be communicated with a strategy to make science easily accepted and close to the community.

Science should not be exclusive in the present era. Science should be accessible and utilized by the public to support life, one of which is to make people who are reasoned and critical in receiving information. Also, the media can process science as a public discourse accurately and attractively. Further, Hin & Subramaniam (2014) explained the need of communicating science. Science and technology are factors in developing the socioeconomic of countries which fosters society with good standards of living. The rapidity of globalization has made science and technology very attached to and influenced social activities. Several developed countries such as Japan, Singapore, Canada, and the USA experienced good economic growth as a result of the recognition of the potential of science and technology in realizing national goals. Meanwhile, developing countries which are still struggling with poverty, low literacy level, and weak government, are related to low socioeconomic development. For the above reasons, science communication can bring its assistance.

Education is the main milestone in the progress of a civilization. Through education, science is spread. Therefore, in this day and age, communicating science to the general public is also the role of academics. Research and writing expertise should be delivered easily to the lay people or non-experts. Therefore, science communication needs to be understood and instilled in academics.

Communicating science can be done through popularization strategies of semi-popular articles. According to Goldman and Bisanz (2002) in Scharrer (2016),

popularization is conveying information to the general public which is adjusted to the level of previous knowledge. The popularized articles writers adjust their writing to lay society by presenting contents in simplified forms. Simplification can be created through translating technical jargon (Singer, 1990; Treise and Weigold, 2002; Zimmerman et al., 2011; Scharrer, 2016) and keeping out the complex information such as detailed information on the process of research and statistical information (Zimmerman, 2001; Scharrer, 2016).

Hyland (2010) in his study proposed the concept of proximity which can help us to see interpersonality as the rhetorical construction of proximity by understanding how writers position themselves and their work in relation to others. The term *'proximity'* explained the rhetorical features represent the authority both as an expert and an individual against issues in an unfolding text. He proposed five ways in achieving proximity. First is **organization**. The visual role or the way the genres are organized. In research articles, the main claim is found in the end of the paper following the methodological steps, meanwhile in popular science it can be found in the beginning to highlight the novelty and topic importance. The second is **argument** structures that are shaped differently to bring materials to the two audiences and were analyzed through dissimilar kinds of appeals, focuses, and framings. In the term of appeals, novelty urges those two genres as a key feature of academic progress and intellectual development. In research papers, novelty functions to integrate contributions with the connection of community knowledge, establishing local research to the wider concern of the discipline. On the other hand, the novelty is transformed into trustworthiness in popular science. Through trustworthiness, proximity is conducted by offering science and technocratic

ideology enthusiasm which scientific progress will invariably improve human lives. In the term of focus or researcher's concentration, research paper focuses on 'narrative of science' (Myers, 1990) which follows a particular conceptual structure, meanwhile popular science presents 'narrative of nature' focused on things that are studied. Third, **credibility**. The writers emphasize credibility of the source information reported to engage the incomplete knowledgebase of lay audience. Impersonalization is usually used in creating proximity in popular science articles. Next is **stance**. The proximity is created by establishing a clear stance of the writers. Modality is a feature of interpersonality which is frequently discussed and important in creating proximity by allowing the writers to take out positions, state a way of thinking, and claim their existence with the readers. The proximity then can be achieved by attributing attitudes or giving the lay audience what they might think or believe based on common sense and community recognition. Lastly, **reader engagement**. Creating proximity by acknowledging the readers using mainly two ways which are *readers pronouns* and *questions*, but there are three other features of engagement that will be mentioned in the following section. *Questions* only used in popular science. It functions to bring readers closer to the concerns of scientists and simultaneously make science real and clear.

In his study, Hyland (2010) examined how writers display their expertise and interactions with readers in a corpus of research articles and popular science articles. The results of the study reveal one of them is the statement that in popular science articles, proximity is achieved by making research more accessible to non-specialists, while in research science articles, the writers position themselves as competent colleagues through

familiarity presented by certain method and a literary discipline, represent research with caution, and provide evidence to sustain claims.

Other researchers who examine proximity in corpus are Qiu and Jiang (2021). The study analyzed the use of proximity which are stance & engagement in the speech text of Three Minutes Thesis Presentation (3MT). 3MT is a challenge for postgraduate students to present their research to the general public. A corpus was created from 80 3MT speech texts and then analyzed using the *AntConc* concordance software.

Research on the concept of proximity in the corpus has not been done much. From previous studies, most tend to explore research and popular science articles. Therefore, in this study, the researcher intends to explore the aspect of proximity, especially engagement markers in semi-popular articles. In addition, the topic of the language learning article was chosen because there has been no previous research related to this topic. Existing research is limited to applied linguistics.

In this study, the researcher will examine how the writers of semi popular science articles negotiate proximity through acknowledging and connecting to the readers.

1. 2. Research Problems

1. One of the causes of low literacy level is that science is not easily accessible and not close to its audience.
2. Readers must be approached and considered to exist by attracting them in a discourse and making them equal partners in the same understanding and goals.

1.3. Research Questions

The research question formulated is “How do the writers of semi-popular articles engage their readers in writing about language learning?”

1.4. Research Purpose

The purpose of the study is to examine the engagement markers that are used by the writers of semi-popular articles about language learning in engaging their readers.

1.5. Research Scope

The study was carried out based on analyzing the engagement markers in the corpus that is consisted of 81 semi-popular articles about language learning which were published on several universities' websites dan gathered in ScienceDaily website as a tool. The choice of the ScienceDaily website is because the website contains many semi-popular articles, especially with the topic of language learning compared to other websites.

1.6. Research Significance

1) Theoretical significance

   The results of this study are expected to be reference for the further researchers who conduct research in same field and topic.

2) Practical significance

   Information about the findings in this study can be applied by researchers, popularizers, or other semi-popular articles writers as a reference or additional strategy in writing semi-popular articles as well as engaging their readers.