

CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 Students' Perception

Perception is the mental and emotional response to an experience someone sensed. According to Efron, perception is the human ability to perceive sensory information that is considered the fundamental means of cognitive interaction with the external environment, given that all conceptual knowledge is derived from this fundamental state of consciousness (1969). Segal (2014) stated that “perception is defined as an experience occurring in a response to a physical stimulus.” Based on the Longman Dictionary, perception is defined as “1. The way you think about something and your idea of what it is like; 2. The way that you notice things with your senses of sight, hearing etc.; 3. The natural ability to understand or notice things quickly.” By the definition provided above, it can be said that perception is the mental response of external physical stimulus consciously in which experienced by the person (“Longman Dictionary,” 2023). Therefore, based on the three definitions above it can be said that perception is the human ability to process the input from external stimuli and turn it into understandable knowledge.

Perception process, according to Qiong (2017) is divided into three phases as follows:

1. Selection

"Selection is the first stage in the perception process, where we transform environmental stimuli into meaningful experiences" (Qiong, 2017, p. 18). In daily lives, people always get exposed to different kinds of information sensed by five senses simultaneously. When someone writes a thesis in a cafe, for example, her/his eyes see what she/he is writing on the laptop, the nose smells a calming scent, the skin feels the fresh air, and the ears hear music. Nevertheless, people can only engage in some things at a time, so paying attention to what is essential is the priority. In this case, she/he only pays attention to thesis writing and ignores everything else.

2. Organization

After getting information, the second process is to put it in order by looking for relevant patterns. In this organizing stage, things or people are put into groups; recognizing shape, color, texture, size, etc., of people, places, and things that are being seen. For example, when opening the QuillBot app, we can tell what it looks like by the color, font size, font, column layout, features, logo, etc. Even if we do not open the web, we can imagine QuillBot's visualization. At this stage, perception has two features. First, human perception is structured through organizing in which we always combine external stimuli into meaningful experiences. Second, the process shows how people see things stay the same over time. Once we choose certain things and put them in a category, they remain longer.

3. Interpretation

Attaching meaning to selected stimuli is the third stage of perception. After categorizing the selected inputs into structured and recognizable patterns, we attempt to understand these patterns by assigning meaning to them. However, various people may process the same stimulus differently.

Although perception happens to be everyone's natural event, they respond differently to the same experiences based on their capability. It happens for two reasons: students' perceptions directly affect how they know about something and do not always match the perceptions of professionals or founded theories (Faber et al., 2020). Therefore, students' perception can be considered as something dynamic that cannot stick to one thing; rather there are possibilities offered as the result of the experience they had and interpret based on their background knowledge.

2.1.2 Academic Writing Overview

Academic writing is a process whereby a scholar analyzes, interprets, and critically evaluates a subject matter to generate an original idea. Ariyanti (2016) stated that academic writing reviews how a writer thinks, analyzes, proves, and communicates factual and academic information. It implies that to produce academic writing, a writer must thoroughly understand the issue, locate all relevant resources, evaluate and interpret the data, and present it in the most effective way

possible. Ariyanti argued that academic writing's final product is analysis, and a writer is advised to ask "HOW" and "WHY" inquiries rather than "WHAT" queries (2016). Therefore, the result could show the writer's understanding of the most complete data possible and provide it to the readers.

Some forms of academic writing include papers, notes, reports, projects, essays, and dissertations/thesis. Bailey (2015) defines those terms in his book by stating that a note is a student's private record of the essential information presented in a textbook or lecture. A report is a descriptive summary of a student's accomplishments, such as organizing a survey. A project is a student-driven investigation (individually or in small groups) on a topic of his or her choosing. The essay is the most typical form of written work, often ranging in length from 1,000 to 5,000 words and having a title assigned by the teacher. Meanwhile, a dissertation or thesis is the most extensive academic paper a student writes (often 20,000 words or more), often in completion of a graduate degree. It can be said that each kind of writing has its purpose. It could be to report on a piece of study that the writer has completed, to answer a question that the writer has been given or selected, to analyze a topic of common interest and express the writer's position, or to combine with other done research on a specific topic. Therefore, to avoid misunderstanding, effective academic writing is achieved by carefully considering the link between the form of writing and its purpose.

Apart from that, before producing academic writing, according to Ningrum, Latief, M.A., and Sulisty (2016), pre-writing or planning is the first and most critical phase in the writing process. Students might benefit from prewriting activities by learning more about a topic, narrowing their focus, generating ideas, and outlining their drafts (Ariyanti, 2016). Besides, Ariana (2017, p. 4) stated that students should identify "(i) understanding the topic or subject matter, (ii) the topic focus or aspect required for answering the question, (iii) specifically identifying instruction word(s) in the question, and (iv) decide on the necessary rhetorical strategy (essay-type) for answering the question." Therefore, pre-writing makes an essential move before writing because it will tell the pictures of how the topic is

going to be explained and make a path for the author to write. So the writing will have a clear purpose and description towards the topic itself.

After deciding the topic Ariana (2017) stated that the next step is writing organization, which are divided into three part as following:

1) The introduction

In this paragraph, the writer is required to set the background of the topic, explain the topic selection and focus, mention the outline, define special terms related to the topic, write down the purpose, and clarify the thesis statement at the end of the paragraph.

2) The body

The paragraph of the body depends on the rhetorical strategy used, for example, sequence essay, description essay, cause and effect essay, or comparison and contrast essay. The sequence structure is based on the order of time, numbers, or space. The description structure is used to talk about a subject's unique qualities and events. Reports that describe things can be set up according to groups of related attributes, going from broad groups of features to more specific ones. The cause-and-effect structure is used to show how two events are related. It is also identical with words like "if...then," "as a result," and "therefore." The compare and contrast structure shows how two or more things, events, or points of view in an argument are the same or different. Words like same, different, alike, in contrast, similarities, differences, and, on the other hand, can be used to compare and contrast organizational structures. The problem and solution structure requires writers to describe a problem and provide the solution.

3) The conclusion

The ideal conclusion should summarize the key arguments, and the conclusion should give a straightforward solution to any questions raised in the title. In addition, it may feature a closing statement emphasizing its meaning.

As a college student, the skill must be able to write academically, as a thesis is required for graduation. Not only should students be able to write, but they should also be sensitive to the phenomena occurring in their surroundings to affect social change. Additionally, academic writing requires the ability to paraphrase so that the

writer can elaborate on his or her findings, which are supported by previous research findings. Apart from that, this technique can be used by writers to help explain the findings with the writer's views.

2.1.3 Paraphrasing Overview

Paraphrasing is restating someone's utterance without changing the idea's original meaning with personal understanding. According to Miranda, it is the action of taking another person's words and restating them using one's own language without modifying the utterance's meaning (2021). Shi, Fazel, and Kowkabi (2018) found in their study that paraphrasing entails rearranging, analyzing, and narrating the original text in a way that makes sense for the new text. For example, participants in hard (more scientific, such as physics, chemistry, engineering, or mathematics) and soft (more social, such as humanities-oriented, such as sociology, psychology, literature, or philosophy) disciplines employed different strategies. Hard discipline participants tended to closely copy or slightly modify the source text, whereas soft discipline participants were more likely to restructure the paraphrases syntactically (Shi et al., 2018). Further, students frequently add their own ideas or interpretations, leave out specific details, and paraphrase by combining multiple ideas from the original paper to support their writings. Thus, this process enables individuals to convey their personal perspectives and create novel insights within their academic papers.

The paraphrasing process is align with the theory of Grammatical Metaphor from Systemic Functional Linguistics. Grammatical metaphor is the representation of meaning by changing the grammatical structure. It entails changing words or sentences from one grammatical category to another, like changing an adjective into a verb or a verb into a noun (Walsh Marr, 2019). This concept is the core idea of the paraphrasing process. It involves an expression of meaning through a change in grammatical form, which is an important part of paraphrasing. Grammatical metaphor facilitates the expression of complex ideas as well as the reduction, generalization, and integration of information from the source text to perform.

The Grammatical Metaphor concept was introduced by Halliday in Systemic Functional Linguistics (SFL) theory (Halliday and Webster, 2009). Systemic Functional Linguistics (SFL) examines how language creates meaning in various contexts. SFL examines language through three lenses: ideational, interpersonal, and textual (Gebhard and Accurso, 2022). The ideational metafunction, including constructs ideas and experiences. The interpersonal metafunction on the other hand, related to enacts social roles and power dynamic. While the textual metafunction, focus on managing the flow of information to make extended discourse coherent and cohesive. SFL has impacted many areas of applied linguistics, including paraphrasing. Thus, to paraphrase, in-depth comprehension to know a lot about language and how it works is needed based on the grammar metaphor concept in systemic functional linguistic theory.

Although there are many strategies for paraphrasing, basically paraphrasing is using indirect and direct sentences, types of comparative sentences about adjectives and adverbs, types of sentences expressing wishes and conditional sentences (Truong, 2021). Moreover, another strategy was introduced by Akbar (2020) in his study about paraphrasing strategy. The first is to rearrange certain words and adjust the structure of the sentence. But, frequent use of this method may result in a decline in the quality of one's rewording. In some cases, it may be considered an act of plagiarism despite the presence of quotation marks enclosing the rephrased content. Students often resort to this strategy due to a need for more vocabulary. The second is modifying the sequence of the utterance while retaining the original meaning. Third, remove the unnecessary words and make them into shorter paragraphs. The last is to transform the general idea into a specific idea with another form of sentence. But, the most important step in paraphrasing is to comprehend the meaning of the notion. Paraphrasing the notions or utterances without comprehending the text first will cause misunderstanding and misleading. Once the students understand the text, they are freely restating it in any form as long as it contains the same meaning.

Specifically, Sun and Yang (2015) show the findings reveal 30 distinct paraphrase techniques, the most popular of which were direct quotation and word-

for-word replication. Sun and Yang (2015) divided paraphrasing into two levels: single paraphrasing strategy and integrated multiple paraphrasing strategy. The single strategy revealed eight key types: copying verbatim, substitution, insertion, deletion, citation modification, reordering, combination, and separation (Alvi, Stevenson, and Clough, 2021; Sun and Yang, 2015). Sun and Yang (2015, p. 6) said, "The substitution paraphrasing strategy was further divided into eleven subcategories, including substitution through the use of synonyms, syntactic changes, auxiliary verb changes, singular/plural changes, adding information, pronoun/antecedent changes, generalizations, part of speech changes (e.g., from verb to noun), definite/indefinite article changes, transitions, and antonyms." Meanwhile, the insertion strategy was broken down into a total of eight subcategories, which included the following: adding more information; transitions; definite/indefinite articles; synonyms; pronouns/antecedents; definitions; instances; and generalizations.

Additionally, integrating multiple paraphrasing strategy, based on the study conducted by Sun and Yang (2015, pp. 8–10) at least there are six types of this strategy which are following:

- 1) Substitution using syntactic changes + synonym substitutions + deletions
- 2) Reordering + syntactic changes + synonym substitutions + copying verbatim
- 3) Substitution using pronoun and antecedent changes + insertions + deletions + syntactic singular/plural changes + copying verbatim
- 4) Substitution using syntactic changes + deletions + pronoun/antecedent changes + copying verbatim
- 5) Separation substitution using transitions/connections synonyms deletions punctuation changes copying verbatim
- 6) Substitutions + insertions + copying verbatim

Based on the strategies given by researchers above, students can use many possible ways to paraphrase text. However, comprehending and proficiently applying grammar rules is the highest priority when engaging in paraphrasing, as it prevents potential reader misinterpretations. In addition, possessing a broad range of vocabulary can aid students in avoiding plagiarism.

2.1.4 QuillBot as an AI Tools for Paraphrasing

Artificial intelligence, or AI, is a term for computer technologies that have traits similar to human intelligence, like the ability to reason, learn and adapt, understand sensory information, and interact (Banner, 2018). As Coppin's definition, artificial intelligence refers to the capacity of machines to quickly adapt to novel circumstances, address developing situations, resolve difficulties, respond to inquiries, create strategies, and execute a range of other tasks that demand a certain degree of intelligence commonly observed in humans (2004). Based on the definition above, AI has been broadly used in many human sectors, including education. AI in education is used to adapt, resolve, and help students with their difficulties in the process of learning. For instance, students could receive 21st-century skills such as scientific literacy, critical thinking, problem-solving, initiative, persistence, adaptability, etc. (Luckin et al., 2016). According to Chen et al., AI has been implemented in various ways within educational institutions. These include the automation of administrative tasks and processes, the development of curriculum and content, the facilitation of instruction, and the enhancement of students' learning experiences (2020). Therefore it can be said that AI is the computer intelligence to help humans in facilitating many sectors in the most effective way possible. One of the AI products that help students in their learning process, especially in writing, is QuillBot.

QuillBot is very popular among students while paraphrasing English utterances. It can be used to enhance grammar, avoid plagiarism, summarize lengthy passages, and paraphrase writing in order to make it more exact and appear more competent (Fitria, 2021). QuillBot provides a solution that makes suggestions for paraphrases by utilizing AI if scholars lack paraphrasing competency (Dale, 2020; Kusuma, 2020). Deep learning and natural language analysis are both used in the AI technique. It automatically removes, inserts, or replaces words to make a whole new phrase (Fitria, 2021).

According to Kinkead (2015) there are two texts that can be utilized with the paraphrase generator: the one you copied and the one you want to paraphrase.

After processing the input text, then press the “rephrase” button and the AI produces a freshly new phrase that conveys the same meaning (Kinga and Gupta, 2021). Besides the paraphrasing tool, QuillBot also offers other features such as grammar checker, plagiarism checker, co-writer, summarizer, citation generator and translator. Additionally, Kurniati and Fithriani (2022) said “QuillBot also provides automated writing evaluation (AWE) on the grammar checker features.” This software also provides extensions to link your Chrome and Word and make ease of your work without always opening up the website.

However, specifically the paraphrase tool, QuillBot provides several features to help the users find the most needed one. There are seven main modes available which are Standard, Fluency, Creative, Simple, Expand, and Shorten modes. According to Fitria (2021) standard mode serves to balance the modifications you apply to the text by preventing it from altering its true meaning and making it appear more original; Fluency mode emphasizes natural writing and English grammar. This feature modifies the text slightly yet retains its meaning; Creative mode adjusts the inputted text as much as possible. This may change the results' meaning or clarity. If your text is considerably different from the original, this mode can help. Additionally, Miranda (2021) also discusses in her study about the features in QuillBot. She explained the formal mode modifies the mood of the text so that it will be read more appropriately to more sophisticated audiences. It is very helpful while writing academic papers and reports for businesses. The simple mode is created to provide the opportunity to make as many edits to the text that you enter as possible. Yet it is potential that this will have an effect on the text's relevance and coherence as a whole. Expand mode attempts to make the text longer by including as many more words as is reasonably possible and it works best with papers that require a high total word count. Last but not least, is shortened mode, which minimizes the length without affecting its meaning; this is very helpful when you need to cut down on the overall text size or the number of words used. Furthermore, each mode provides three rephrase attempts so the reader can choose the best phrase possible.

Besides, QuillBot also allows its users to modify the synonyms and fillers provided of every word after being paraphrased by themselves. Additionally, every mode has three levels of accuracy in which the lower the level means the more accurate the text to the original, since it will change more words which can affect the text's meaning. However, only standard and fluency modes are available for free, the rest modes need a subscription to upgrade into premium ("QuillBot," 2023).

2.1.5 Study of Relevant Research

There are various studies conducted by researchers on QuillBot's use to find out its' impact on students' writing skills, such as the study by Rakhmanina (2021) that aimed to demonstrate how to use QuillBot Paraphraser to prevent plagiarism in students' academic writing. The result shows QuillBot's performance in paraphrasing: The sentence begins differently; important information might be listed in several orders and with rearranged words, phrases, or clauses; Select synonyms (words or phrases with the same meaning); changing phrase structure: Break longer sentences into two or more phrases.

Miranda (2021) conducted another study to look into how students perceived paraphrasing tools and how that affected their paraphrasing abilities. This study also identifies QuillBot as a tool for students to improve their paraphrasing ability. This study reveals that there are two-sided point of view: the students who believe that paraphrasing tools, specifically QuillBot, definitely help their work in writing their assignments; the students who believe that paraphrasing tools, specifically QuillBot, definitely help their work in writing their assignments; and the students who believe that paraphrasing tools are making them dependent on technology and that it is a different kind of plagiarism. However, the paraphrasing tools' impact also has pros and cons. First, positive impact. Students believe that paraphrasing tools are beneficial in improving their writing abilities. At least, there is positive feedback from the participants towards paraphrasing tools, such as

comprehending the text better, students' vocabulary enrichment, guiding the student towards the proper paraphrasing method, and avoiding plagiarism.

Last but not least is the study by Kurniati and Fithriani (2022), which aimed to investigate post-graduate students' perceptions of QuillBot as a digital tool for English academic writing. The result shows that 75% of 20 participants are recognized and usually use QuillBot to help them write their papers. Besides, post-graduate students find QuillBot to be very beneficial in encouraging an optimistic attitude among students regarding their writing, giving a wide range of user-friendly writing capabilities, and aiding students in developing their language skills. In short, post-graduate students used QuillBot as a digital tool to enhance their academic writing, with a favorable view of the application as a digital aid for producing high-quality writing.