

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

This chapter discusses some literature and theories related to the study. The theories included in this chapter are perception ChatGPT, learning English, and learning English using ChatGPT.

#### **2.1 Perception**

Perception is an important aspect of everyday life because it allows us to understand our surroundings. Perception is giving a response to an object through the five senses such as sight, sound, taste, touch, and smell. Robbins and Judge in Sharma (2019) define perception as the cognitive process through which individuals arrange and interpret sensory input to make sense of their environment. This sensory input is processed by the brain to interpret and use it to create a perception of the world.

Moreover, Walgito in Irawati et al., (2022) state that perception is a process that follows the sensing process, wherein individuals receive stimuli through sensory processes. It indicates that perception is formed from individual experiences in obtaining information from the surrounding environment through the five senses. Lara Herrera (2015) added that perceptions encompass emotions, beliefs, experiences, preferences, mental imagery, values, concepts, and knowledge depending on the subject and the area of study.

Based on the information provided above, it can be concluded that perception involves the interpretation and organization of sensory information that combines various psychological and cognitive factors to derive meaning from the environment. In other words, perception involves receiving sensory input and subsequent cognitive processing to understand the stimuli received and provide meaning in the context of the environment.

##### **2.1.1 Factors Influencing Perception**

According to Robbins and Judge in Sharma (2019), there are two factors that affect perception, including internal factors and external factors.

## 1. Internal Factors

Internal factors refer to factors originating from an individual. It depends on physiological factors such as thoughts, emotions, motivations, needs, gender, motivation, and attention. People have different characteristics, and temperament is also shaped by family and environment.

## 2. External Factors

External factors are factors that originate externally to an individual. External factors influence human perception. The stimulation process occurs through sensory organs, including sight, hearing, hearing, etc. From this, we can conclude that the personal sensory organs are the link between the individual and objects in the world.

### 2.1.2 The Process of Perception

Qiong (2017) states that perception consists of three steps, namely selection, organization, and interpretation.

#### 1. Selection

Selection is the beginning step in the perceptual process, transforming environmental stimuli into meaningful experiences. In everyday life, individuals are consistently subjected to a diverse array of information, and they may encounter these stimuli in an instant. For instance, people listen to the words they hear, and people hear loud and soft sounds, etc. This means that individuals instinctively prioritize certain senses in their attention and filter out irrelevant or less important information in order to focus on what they consider important or notable.

#### 2. Organization

After choosing information from external sources, they need to find patterns that make sense and organize the information in some way. Some researchers also call this stage of organization categorization because it is accomplished by classifying things and people. At this step of perception, the social and physical events and objects individuals directly encounter exhibit characteristics such as shape, color, texture,

size, etc. This allows individuals to structure and comprehend the information they choose mentally and to have a more coherent understanding of their surroundings.

### 3. Interpretation

Interpretation is the last step of perception, which entails assigning significance to chosen stimuli. Once the selected stimuli have formed structured and persistent patterns, individuals attempt to make sense of these patterns by attributing meaning to them. However, various individuals may interpret the same stimulus differently. People may interpret and understand the same information or event differently based on their experiences, beliefs, values, and cognitive biases. Therefore, interpretation is a subjective process influenced by individual perspectives, which can result in different understandings and different meanings of stimuli.

#### 2.1.3 Types of Perception

According to Irwanto in Mahreda (2017), there are two types of perception. The types of perception are negative perception and positive perception.

##### 1. Positive Perception

Positive perception refers to interpreting all information and knowledge, known or unknown, from a good perspective. It also applies to individual positive perceptions of their surroundings.

##### 2. Negative Perception

Negative perception refers to the interpretation of knowledge (known or unknown) in a negative, inconsistent attitude toward the experienced thing. In another way, negative perceptions are unfavorable appraisals of how people perceive their surroundings.

#### 2.1.4 Aspects of Perception

According to Walgito in Wulandari (2021), aspects of perception are divided into three: cognitive, effective, and conative.

##### 1. Cognitive

This aspect is related to cognition and includes components such as information, expectations, cognitive processes, and prior experiences that contribute to an individual's perception.

## 2. Affective

This aspect dives into a person's emotional disposition and attitudes toward numerous entities, including the evaluation of positive and bad traits based on emotional elements. An individual's emotions are connected with their personal needs; products that facilitate these requirements are favorably valued, while those that inhibit them are adversely appraised. As a result, evaluative tendencies are intimately related to the cultural values or systems in place.

## 3. Conative

This aspect includes the motivations and intentions underlying behavioral patterns observable in an individual's daily life, which are influenced by their perceptions of specific items or circumstances in their surroundings.

## 2.2 ChatGPT

According to Haque et al., (2022), ChatGPT is the latest edition of the GPT-3 (Generative Pretrained Transformer 3) application, which employs by OpenAI model for language processing to generate text that resembles human writing. Ouyang et al., (2022) also state that ChatGPT is a transformer-based language model previously trained based on a large corpus of text adapted to certain specific data. It indicates that ChatGPT can generate context-appropriate text, answer questions, generate texts, and participate in conversations with users using natural language. Haque et al., (2022) argue that ChatGPT employs deep learning methods to comprehend, analyze, and generate human speech that is highly sophisticated with moderate accuracy and functionality.

ChatGPT enables the production of text in any given context and topic because ChatGPT can create natural language and provide more accurate answers (AYDIN & KARAARSLAN, 2023). In addition, the use of Natural Language and generative AI in ChatGPT also relies on deep learning, which allows this chatbot to generate human-like text and conversation models that have realistic natural

dialogue (Tlili et al., 2023). This is due to the availability of computational tools for natural language computer-human interaction, which is increasingly similar to human interaction. Firat (2023) also added that using input from user computational tools, ChatGPT can reply and offer specific advice and assistance to its users.

### **2.2.1 The Origin of ChatGPT**

ChatGPT (Generative Pre-trained Transformer) is an AI chatbot released in November 2022 (Liebrenz et al., 2023). ChatGPT quickly obtained more than a million subscribers within the first week of its public launch (Farrokhnia et al., 2023). Ray (2023) states that ChatGPT is built upon the GPT-3.5 architecture, which is an updated version of the previous model, GPT-3, initially introduced by OpenAI in 2020. It means that ChatGPT is progressing from the previous version to the modified version. ChatGPT increased recognition because the OpenAI company, through its language model and user interface publicly available (AYDIN & KARAARSLAN, 2023).

### **2.2.2 The Strengths and Weaknesses**

As cited in Farrokhnia et al., (2023), there are several strengths and weaknesses of ChatGPT

#### **2.2.2.1 The Strengths of ChatGPT**

##### **1. Producing believable responses**

ChatGPT is an advanced language model employing a transformer architecture for a range of natural language processing tasks, including speech generation and language comprehension. The remarkable performance of ChatGPT primarily arises from its large dataset, which allows it to comprehend a wide range of language patterns and relationships. As a result, ChatGPT has a strong understanding of language and context and can generate responses that not only seem plausible but also appear more believable compared to similar AI tools.

##### **2. Self-improving ability**

In contrast to other AI chatbots, ChatGPT uses a more complex language processing model known as generative pre-training (GPT). This feature allows ChatGPT to customize and enhance responses using

feedback from human reviewers. Moreover, the continued expansion of its training dataset means that ChatGPT is always improved with new data.

### 3. Offering customized responses

ChatGPT has the ability to adapt as a conversational agent by learning from human interactions. Past conversations can be saved and incorporated into replies, preserving context and enabling natural and consistent discussions with users. Through comprehensive training on extensive datasets, ChatGPT possesses the capability to deliver responses to the particular context of specific prompts. In addition, ChatGPT may provide responses with a variety of tones and structures so users can tailor the response according to their preferences and requirements. It allows users to produce text that simulates a real-life interaction with a chatbot, adding a sense of personalization to the conversation with each interaction.

#### 2.2.2.2 The Weaknesses of ChatGPT

##### 1. Lack of deep understanding

ChatGPT has a limited understanding of the meanings of processed words. It can identify patterns and produce credible responses, but it lacks complete comprehension of the fundamental concepts. As a result, its responses may lack depth, insight, and relevance, especially when performing tasks that need a detailed understanding. This constraint can be addressed by a procedure that allows for a more significant, less general understanding. However, without such a mechanism, using ChatGPT can "desensitize" users.

##### 2. Difficulty in evaluating the reliability of responses

ChatGPT does not possess the innate human capability to evaluate the reliability of the training data. Moreover, ChatGPT does not have direct access to the internet, and its knowledge is confined to information available prior to 2021. As information progresses, this limitation may sometimes result in the delivery of outdated and inaccurate answers. For instance, when requested to offer current citations, ChatGPT might

generate references that seem credible but do not align with actual sources in the real world.

### 3. Lack of higher-order thinking skills

ChatGPT can help with complicated learning goals but falls short in processing content that requires higher cognitive skills, such as critical and analytical thinking. This shortcoming is mostly because AI tools rely significantly on data training and lack a thorough understanding of context, common sense, and emotions, which are crucial for advanced cognitive processes. For example, ChatGPT's capacity to produce questions that require critical thinking at a higher level is limited because it demands a greater comprehension of the subject matter.

## 2.3 Learning English

For many people all over the world, learning English is a necessary ability. Learning English is the primary language in many nations and the medium of all international communication. Rao (2019) states that English is spoken all over the world and has established its position as a global language. Learning English is essential because it allows someone to communicate effectively with people around the world. (Marzulina et al., (2021) also added that learning English is very important for the current generation because it can be used to adapt to global communications, literature, media, and work in the present and the future. English is considered a vital language for all kinds of professional and personal purposes (Nishanthi, 2018). Therefore, learning English is considered very important.

According to Wendiyarti (2022), learning English is a process involving acquiring the competence to use English accurately and appropriately in various situations and contexts faced by students in everyday life. Moreover, Nishanthi (2018) states that there are several reasons why people learn English; namely, English is the most common foreign language, education, the internet and press, resources make learning English easier, travel and business, the language of Hollywood and most movies are in English, speaking English delivers access to the world of entertainment, English help people understand other languages, languages are a hundred different ways of saying, flexible and easy to learn. Learning English can be defined as the process of acquiring knowledge and developing English skills

related to the English language, including vocabulary, grammar, pronunciation, and comprehension.

### **2.1.1 Learning English Skills**

English skills are very important to master because they are important in effective communication in this current era. This is because English is the common language in the world. Thus, having good English skills is essential for efficient communication. There are four English skills: speaking, listening, reading, and writing. These abilities must be tackled appropriately with the student's specified benchmarks and allow them to progressively improve their communication skills (Lorena & Sadiku, 2015).

### **2.1.2 Learning English Skill Components**

English skills include several key components that contribute to effective communication in English. These components include speaking, listening, reading, and writing. Moreover, these components are interconnected and play an important role in effective communication in English. By developing proficiency in each of the components, individuals can improve their overall language proficiency, broaden their opportunities for learning and development, and effectively engage in a variety of personal, academic, and professional contexts.

Speaking is a challenging component for language learners and is regarded as the most important of the four language skills in English (Bueno et al., in Rao, 2019). Speaking involves the process of transmitting thoughts, concepts, and information through oral words and vocal expressions. Chaney in Leong & Ahmadi (2017) states that speaking can be interpreted as creating and exchanging meaning through verbal and non-verbal symbols in various situations and environments. Brown & Yule in Darmuki et al., (2017) argue that speaking is defined as the ability to articulate spoken language sounds in order to vocally transmit thoughts, concepts, and emotions. Proper pronunciation, diction, and vocabulary can be a priority for people to speak in a good way (Lorena & Sadiku, 2015).



Listening is an important skill because it is present in most activities that people do every day. Listening refers to the ability to effectively absorb, interpret effectively, and understand spoken language and auditory information. Lorena & Sadiku (2015) states that listening is more than just hearing; it is a state of receptivity in which what is heard is understood, and the listener is fully involved in the communication process. On the other hand, Gilakjani & Sabouri (2016) argue that listening as the comprehension of spoken language entails assessing linguistic elements, including phonemes, vocabulary, and grammar, as well as considering factors such as prediction, context, prior knowledge, and the listener's perspective.

Reading is the cognitive process of interpreting and understanding written or printed text. Anderson et al., in Pourhosein Gilakjani & Sabouri (2016), define reading as a process of deciphering the meaning of a written text that requires harmonization from many relevant sources. In other words, reading is a cognitive process that involves both deciphering the meaning of written text and reconciling information from multiple related sources to achieve comprehensive understanding. Reading is the most evident language skill and may assist people (Lorena & Sadiku, 2015)

Writing is the process of using the written word to express and communicate thoughts, ideas, information, and experiences. Lorena & Sadiku (2015) defines writing skill as a tangible representation of an individual's intellectual depth or level of expression. This indicates the quality of a person's writing, which can signify the level of intellectual development, critical thinking skills, and proficiency in articulating thoughts and ideas. In addition, writing skills are the abilities and capabilities required to produce written material properly. It encompasses various aspects such as organizing thoughts, conveying ideas, structuring sentences and paragraphs, using acceptable vocabulary and language, and keeping to grammatical norms and traditions.

#### **2.4 Learning English Using ChatGPT**

ChatGPT is an artificial technology used in education to support teaching and learning activities because it produce personalized learning (Oranga, 2023). Learning English with ChatGPT can be enriching and interactive experience for

students. According to (Rahman & Watanobe, 2023) ChatGPT can be a tool that students can use as their assistant for learning. Students can interact with ChatGPT to ask questions, clarify language concepts, and get real-time feedback on their language usage. (Baidoo-Anu & Owusu Ansah, 2023) further stated that ChatGPT is highly engaging and can hold genuine, human-like conversations on a variety of topics while also producing compelling materials. This interactive and personalized learning experience allows students to take responsibility for their learning journey and successfully meet their specific learning needs.

