

CHAPTER 1

INTRODUCTION

A. Background of the Study

The increasing use of Artificial Intelligence (AI) in our everyday lives has offered new possibilities for how people learn, especially when it comes to acquiring English language instruction. Accessible to students now are tools such as ChatGPT, Gemini and Perplexity which provide individualized explanations, instant feedback and flexible learning help that is frequently absent in a typical classroom setting. These are undergraduates in English Education. It is revolutionary for students in these programs to interact with the language not as passive recipients of instruction but as active respondents who can call for help and explore ideas and develop language skills in their own terms.

Yet, although AI-assisted English learning is becoming more accessible, students don't appear to profit evenly from it. Some claim significant advances in their abilities to interpret, apply and analyze their English language knowledge, while others report relatively modest gains. This variant poses a fundamental question: how much does a student genuinely profit from employing AI tools? The intuitive answer does not reside in the tools themselves, but in how learners feel when they use them.

Indeed, among the many elements influencing learning outcomes, affective variables especially interest and enjoyment have long been identified as significant facilitators of perceived cognitive development. Interest in the material is related to effort, persistence through difficulty, and more effective cognitive processing of knowledge (Renninger & Hidi, 2022). Interest, Harackiewicz et al. (2018) showed, is one of the most stable predictors of academic accomplishment because it renders learning personally relevant, rather than merely a task to be accomplished. Applied to AI-assisted

environments, this would suggest that students who are genuinely motivated to learn English by means of AI tools may be much more likely to use those tools in cognitively useful ways investigating, questioning, reflecting rather than merely doing tasks.

In addition, pleasure is a key determinant in how learners feel and gain from the learning process. Foreign language enjoyment is a unique positive sensation that is defined by feelings of pleasure, comfort and satisfaction in the language learning process (Dewaele & MacIntyre, 2014) and has been shown to be a strong predictor of motivation among students and active involvement. Students who like studying are less likely to drop out when confronted with challenging assignments and more inclined to face obstacles with an open attitude rather than avoiding them. In the setting of AI-assisted English learning where students generally self-regulate their involvement with technology, enjoyment may be particularly important for whether students engage with superficial or deeper cognitive connections with AI tools.

The cognitive aspect of what learners actually learn through these interactions is also worth a close look. According to Anderson et al. (2001), perceived cognitive development in EFL is the process of mental development in the use of language in learners, which begins with simple skills such as memorizing vocabulary, and understanding grammar rules, and ends with higher order skills such as using knowledge in new situations, critically analyzing texts, and evaluating the quality of information. Research repeatedly indicates that these higher order cognitive changes are not spontaneous but require learners to be involved in an active and meaningful way. Lin and Chen (2024) revealed that the incorporation of AI in learning environments may result in more profound perceived cognitive development, as long as students are emotionally engaged along with being cognitively active. However, the translation of emotive characteristics like interest and enjoyment into perceived cognitive development in AI-assisted settings is underexplored, especially in Indonesian EFL contexts.

In previous study interest and enjoyment have been treated as separate categories. Much of the research has been focused on generic learning outcomes such as achievement scores or classroom engagement, rather than on perceived cognitive progress specifically. As for the enjoyment of foreign language, Guo (2021) found that the enjoyment of foreign language was a good predictor of the EFL achievement of Chinese university students. Similarly, Sugianto et al. (2023) indicated that interest is one of the important factors in improving English learning results because learners with higher interest performed more difficult cognitive activities. “Technology-enhanced learning was also related to higher self-regulated learning and academic achievement in Indonesian EFL students (Supriyono et al., 2024). However, no study has yet studied the combined predictive effect of both interest and enjoyment on reported perceived cognitive development in AI-assisted English learning in the setting of Indonesian undergraduate students.

The present study aims to fill this gap. Therefore, the present study seeks to offer a more integrated understanding of how affective elements impact the cognitive learning experiences of EFL students. Specifically, we use learners’ interest and enjoyment as joint predictors of perceived cognitive development in AI-assisted English learning. This research uses a quantitative correlational design with multiple regression analysis including undergraduate students of the English Education program at Universitas Siliwangi, Tasikmalaya, who have experience with AI technologies in learning English. It is intended that the results would provide practical implications for educators and curriculum designers who wish to build AI-assisted learning environments that are not just technologically competent, but also emotionally engaging and intellectually enriching.

B. Formulation of the Problems

Based on these theoretical foundations, this study formulates the following research questions:

1. To what extent do learners' interest and learners' enjoyment significantly predict perceived cognitive development in AI-assisted English learning?
2. Which factor, learners' interest or learners' enjoyment, is the stronger predictor of perceived cognitive development?

C. Operational Definitions

1. AI-Assisted English Learning

Artificial intelligence (AI)-based technologies, such as generative AI platforms (e.g., ChatGPT, Gemini, Perplexity), intelligent tutoring systems, and automated feedback apps, are used to mediate or support English learning activities. Any instructional or self-directed learning activity in which students use AI-based technologies to get explanations, get feedback, or practice English language skills whether within or outside of the classroom is referred to in this study as AI-assisted English learning. This idea functions as the learning setting in which students' interest, enjoyment, and perceived cognitive development were examined rather than being quantified as a distinct questionnaire variable.

2. Learners' Interest

Learners' Interest refers to students' attentiveness, curiosity and personal relevance of AI-assisted English learning exercises. The interest of the learners was examined in this study by a questionnaire consisting of six items, which measure students' attentiveness to AI-assisted learning materials, curiosity about learning English with AI tools, and personal sense of relevance toward AI-assisted learning activities. Higher scores reflect a higher level of learners' interest.

3. Learners' Enjoyment

Learners' Enjoyment refers to the pleasant emotional experience of enjoyment, comfort and contentment of students during AI-assisted English learning activities. In this study, learners' enjoyment is measured by a six-item questionnaire that explores students' feelings of pleasure when interacting with AI tools, comfort during the learning process and satisfaction with AI-assisted English learning experiences. Higher scores represent higher levels of learners' enjoyment.

4. Perceived Cognitive Development

Perceived Cognitive Development refers to students' self-perceived improvement of cognitive processes in AI-supported English learning activities. The perceived cognitive development in this study is measured by a questionnaire with ten items measuring students' perceived enhancement in remembering, understanding, applying, analyzing, and evaluating English language knowledge during AI-assisted learning as conceptualized in Bloom's Revised Taxonomy (Anderson et al., 2001). Higher scores reflect higher perceived levels of perceived cognitive development.

D. Aims of the Study

This study aims to examine the influence of learners' interest and learners' enjoyment on their perceived cognitive development in learning English with artificial intelligence. It aims to study the direct correlations between learners' affective characteristics and perceived cognitive development in AI-supported English learning environments.

The purpose of this research is specifically:

1. To investigate whether learners' interest and enjoyment in AI-assisted English learning significantly predict their perceived cognitive development.

2. To determine if learners' interest or learners' enjoyment is the stronger predictor of reported perceived cognitive development.

E. Significance of the Study

1. Theoretical Significance

This work seeks to enhance the theoretical comprehension of the predictive functions of affective components (learner interest and enjoyment) in the reported cognitive advancements in English learning made possible by AI. This study contributes to the fields of positive psychology and second language acquisition by providing empirical evidence about the correlation between emotional experiences in technology-enhanced learning environments and learners' perceived cognitive development. Interest and enjoyment are important predictors of perceived cognitive development in English language learning, the results show.

2. Practical Significance

This study has practical implications for English teachers in that it helps them arrange their sessions to integrate both mental and emotional aspects. Teachers can use interest and enjoyment as a way to establish a classroom atmosphere that promotes active engagement and meaningful usage of artificial intelligence (AI) technologies. This information can also aid those who compose educational programs and administer schools to pick and implement AI-based solutions that help kids learn and perceived cognitive development.

3. Empirical Significance

This study provides empirical quantitative evidence for predicting correlations among learners' interest, learners' enjoyment, and perceived cognitive improvement in AI-assisted English learning. It provides data from EFL students in Tasikmalaya, Indonesia, an under-represented environment in earlier studies. The results can be used as a baseline data for future studies on

affective and cognitive characteristics in technology-enhanced language learning situations.