

NATIONAL UNIVERSITY OF CHEASIM KAMCHAYMEAR

KAMPONG CHAM CAMPUS

Faculty of Arts, Humanities, and Languages



**STUDENTS' PERCEPTION OF THE IMPACT OF AI
GENERATIVE TOOLS IN LEARNING THE ENGLISH
LANGUAGE**

ON SREYLET

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of

Arts in Teaching English to Speakers of Other Languages

Kampong Cham, Cambodia, 2025



**STUDENTS' PERCEPTION OF THE IMPACT OF AI
GENERATIVE TOOLS IN LEARNING THE ENGLISH
LANGUAGE**

ON Sreylet

Supervisor: EM Sereyrath, PhD

2025

DEDICATION

This thesis is devoted to my special and cherished parents. Their unwavering dedication and support, as essential people in my life, have given me the confidence and enabled me to compose and finish this work.

I adore and respect them.

STATEMENT OF ORIGINAL AUTHORSHIP

I certify that, except for a few specific instances where it is stated otherwise, the undersigned is the only author of this thesis. Additionally, the results were presented impartially and truthfully. In addition, I declare that this thesis has not been submitted to another university to receive credit toward another degree. I hereby declare that should this turn out to be untrue, I am not either not granted a degree or, should it turn out to be untrue at any point in the future, this degree is revoked and withdrawn.

Signature:

On Sreylet

Date:

Supervisor' approval:

Signature:

Dr. Em Sereyrath

Date:

THESIS APPROVAL

Faculty of Arts, Humanities, and Languages

Master of Arts in Teaching English to Speakers of Other Languages

Topic: **Students' perception of the impact of AI generative tools in learning English language**

On Sreylet

Graduation Year

Name

2024

Accepted by the Faculty of Arts, Humanities, and Languages, the National University of Cheasim Kamchaymer, Kampong Cham Campus, Kampong, Cambodia, in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Teaching English to Speakers of Other Languages.

Thesis Committee

Chairperson

Name: Signature:

First Evaluation Committee

Name: Signature:

Second Evaluation Committee

Name: Signature:

Member

Name: Signature:

Member

Name: Signature:

ACKNOWLEDGEMENTS

I am a second-year Batch 1 of the Faculty of Arts, Humanities, and Languages, specializing in Teaching English to Speakers of Other Languages (TESOL) at the National University of Cheasim Kamchaymear, Kampong Cham Campus. I want to sacrifice physical strength and spiritual strength to study and conduct research to get knowledge regarding **“Students’ perception of the impact of AI generative tools in learning the English language”** to round up knowledge and use it for our interest and develop ourselves as human resources.

First of all, I would like to express my most thanks to my parents, who have done me a lot of favors and have brought me up to be a full man. They have always offered everything as physical strength, spiritual strength, and things to me, and they have tried to do everything without thinking about tiredness or difficulty.

Second, I would like to express my gratitude to the school principal for his permission for the study and the students at the National University of Cheasim Kamchaymear, who attended my study. Without their volunteering to join the study, my project would not have been worked on and appeared.

I acknowledge my thanks to my supervisor, Dr. **Em Sereyrath**, who has guided and taught me to know what the research is and how to write the thesis.

I also wish to extend my thanks to all the lecturers of every course who have helped and taught me with great care all the time, especially for having encouraged me to work hard.

Third, my special gratitude is due to all our classmates who have given me suggestions during the writing of this thesis.

Finally, I also pay my thanks to the future researchers and the readers who will be kind enough to read and comment on the entry thesis and who have made an enormous contribution to the clarity, accuracy, and completeness of this thesis.

ABSTRACT

This study investigates how the National University of Chearsim Kamchaymear students perceive the effects of AI generative tools on their English language instruction. Data was gathered from 120 students using a quantitative method to evaluate the advantages, disadvantages, and moral dilemmas related to the use of AI. The results show that students favor AI technologies for independent learning, enhancing macro skills, and group projects. Obstacles like security threats, privacy concerns, and restricted access to technology and online resources hamper effective implementation. The study emphasizes that to foster confidence and enhance the use of AI in education, ethical standards encompassing unrestricted access, privacy protection, and open policies are essential. Future research should concentrate on improving accessibility, resolving technological issues, and creating AI solutions that are culturally sensitive. The research seeks to provide insightful information on how to integrate AI in educational contexts successfully.

Keywords: Perception, Artificial intelligence, ChatGPT, Generative AI, Self-studying, Ethics.

មូលន័យសង្ខេប

ការសិក្សានេះពិនិត្យមើលពីទស្សនៈរបស់និស្សិតនៅសាកលវិទ្យាល័យជាសៀមកំប៉ាយមានចំពោះឥទ្ធិពលនៃឧបករណ៍បង្កើត AI លើការបង្រៀនភាសាអង់គ្លេស។ ព័ត៌មានត្រូវបានប្រមូលពីនិស្សិតចំនួន 120 នាក់ ដោយប្រើវិធីសាស្ត្របរិមាណ ដើម្បីវាយតម្លៃអត្ថប្រយោជន៍ ផលលំបាក និងទ្រឹស្តីសីលធម៌ដែលទាក់ទងនឹងការប្រើប្រាស់ AI។ លទ្ធផលបង្ហាញថា និស្សិតពេញចិត្តនឹងបច្ចេកវិទ្យា AI សម្រាប់ការរៀនដោយឡែកដោយខ្លួនឯង ការអភិវឌ្ឍជំនាញភាសាដែលមានសារៈសំខាន់ និងគម្រោងក្រុម។ ឧបសគ្គដូចជាហានិភ័យសន្តិសុខ ការព្រួយបារម្ភអំពីភាពឯកជន និងការចូលប្រើតិចតួចនៃបច្ចេកវិទ្យានិងធនធានតាមអ៊ីនធឺណិត បង្កបញ្ហាចំពោះការអនុវត្តប្រកបដោយប្រសិទ្ធភាព។

ការសិក្សានេះលើកសំឡេងថា ដើម្បីលើកទឹកចិត្តនិស្សិត និងកែលម្អការប្រើប្រាស់ AI នៅក្នុងការអប់រំ វត្តមាននៃស្តង់ដារសីលធម៌ដែលផ្ដោតលើការចូលប្រើដោយគ្មានការរឹតត្បិត ការការពារព័ត៌មានលម្អិត និងគោលការណ៍បើកចំហចាំបាច់។ ការសិក្សានេះអំពាវនាវឱ្យមានការស្រាវជ្រាវបន្ថែមដើម្បីលើកកម្ពស់ការចូលដំណើរការបច្ចេកវិទ្យា ដោះស្រាយបញ្ហាបច្ចេកទេស និងបង្កើតដំណោះស្រាយ AI ដែលឆបគ្នាផ្នែកវប្បធម៌។ ទស្សនៈដែលទទួលបានលើកដាក់នូវការណែនាំអំពីវិធីនាំចូលឧបករណ៍ AI ទៅក្នុងបរិបទអប់រំនានា ដើម្បីលើកកម្ពស់លទ្ធផលការរៀនឱ្យកាន់តែប្រសើរ។

ពាក្យគន្លឹះ៖ ទស្សនៈ, បច្ចេកវិទ្យាបញ្ញាសិប្បនិម្មិត, ChatGPT, Generative AI, ការរៀនដោយខ្លួនឯង, សីលធម៌។

TABLE OF CONTENTS

DEDICATION	i
STATEMENT OF ORIGINAL AUTHORSHIP	ii
THESIS APPROVAL	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT.....	v
មូលនិធិសង្គម.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES.....	x
LIST OF FIGURES	xi
LIST OF ABBREVIATIONS	xii
CHAPTER ONE	1
INTRODUCTION	1
1.1. Background of the study	1
1.2. Problem Statement	3
1.3. Purpose of the study	4
1.4. Objective of the Study.....	4
1.5. Research Questions	4
1.4. Significances of the Study.....	5
1.5. Key terms definition.....	5
1.6. Scope and limitation of the study	6
1.7. Summary	7
CHAPTER TWO	8
LITERATURE REVIEW	8

2.1. English language learning in digital program	8
2.2. Impact of AI generative tools in education	10
2.3. Students' opportunities to use AI tools	12
2.4. Challenges of AI generative tools	16
2.5. Ethics of AI generative tools	17
2.6. Empirical study	19
2.7. Research gap	23
2.8. Summary	26
CHAPTER THREE	27
METHODOLOGY	27
3.1. Research design.....	27
3.3. Data collection and procedure.....	28
3.4. Research instrument	28
3.5. Validity and reliability	30
3.5.1. Validity.....	30
3.5.2. Reliability.....	31
3.6. Data Analysis	33
3.7. Ethics of research	34
3.8. Summary	34
CHAPTER FOUR.....	36
FINDINGS.....	36
4.1. Demographic Information of the Samples	36
4.2. Opportunities of using AI tools for learning the English language.....	37
4.3. Challenges of using AI generative tools in learning the English language.....	38
4.4. Ethical of using AI generative tools in learning the English language	40

4.5. Summary	42
CHAPTER FIVE	44
DISCUSSION	45
5.1. Summary of finding	45
5.2. Comparison of Current Findings with the Previous Studies	45
5.2.1. Opportunities of using AI generative tools in learning the English language	45
5.2.2. Challenges of using AI generative tools in learning the English language	46
5.2.3. Ethics of using AI generative tools in learning the English language	47
5.3. Summary	48
CHAPTER SIX	49
CONCLUSION	49
6.1. Conclusion	49
6.2. Recommendation and implication	50
6.2.1. Ministry of Education of Youth and Sport	50
6.2.2. Educational Institute	50
6.2.3. Educators	51
6.2.4. Implication	52
6.3. Summary	53
REFERENCES	54
APPENDIX	64

LIST OF TABLES

Table 3.1. Reliability of the Indicators According to Cronbach's alpha's Analysis	36
Table 3.2. Selection of the Alpha Coefficient.....	37
Table 4.1. Demographic Information of the Samples (n = 120).....	42
Table 4.2. Opportunities of using AI tools for learning the English language	43
Table 4.3. Challenges of using AI generative tools in learning the English language	45
Table 4.4. Ethical of using AI generative tools in learning the English language.....	47

LIST OF FIGURES

Figure 1: Conceptual Framework	15
Figure 2: Data collection and procedures	34

LIST OF ABBREVIATIONS

AI	= Artificial intelligent
EFL	= English as a Foreign Language
ELL	= English Language Learner
ESP	= English for Specific Purposes
ICT	= Information and Communication Technology
IWB	= Interactive Whiteboard
LLM	= Large Language Model
NUCK	= National University of Cheasim Kamchaymear
QCA	= Quantitative Content Analysis
SD	= Standard Deviation
SPSS	= Statistical Package for the Social Sciences
TESOL	= Teaching English to Speakers of Other Languages

CHAPTER ONE

INTRODUCTION

The impact of AI programs has commonly increased throughout the era on society worldwide. Therefore, AI plays an important role in education as well. It provides many benefits for teaching and learning. The following parts will explore every AI tool in this study. The first thing is defining the background of the study, the problem statement, the research purpose, the objective of the study, the research question, the significance of the study, the definition of key terms, and the summary of the chapter.

1.1. Background of the study

Artificial intelligence (AI) is growing and finding applications at a startling rate; it is now a part of our everyday life. In actuality, artificial intelligence has altered how individuals learn. Nevertheless, its implementation in the educational field has been fraught with difficulties and moral dilemmas (Gökçearsan et al., 2024). A growing number of organizations are offering AI technology solutions, with categories including text, image, code, video, audio, and business. These tools are meant for a variety of uses. (Sánchez & Duque, 2024).

Moreover, the study by Epstein et al. (2023), the capabilities of a new class of tools, informally known as generative artificial intelligence (AI), is the subject of intense controversy. One notable application thus far has been the creation of high-quality artistic media for visual arts, concept art, music, and literature, as well as video and animation. Diffusion models, for example, may generate high-quality photographs (1), whereas large language models (LLMs) can generate convincing prose and verse in a variety of scenarios (2).

Development of chatbots and robots that enhance learning for students in all educational settings, including higher education. Thus, chatbots and other forms of artificial intelligence in education have been integrated into teaching and administration. Students at lower educational levels are frequently taught common tasks like pronunciation and spelling using artificial

intelligence (applied to chatbots/robots, or robots). Notably, there is growing interest in using artificial intelligence in education (Oranga, 2023). Creation of policies about the use of GenAI technology in higher education. Policymakers may develop educated rules and methods for the appropriate and successful use of GenAI tools by first understanding students' perspectives and resolving their concerns. This will ultimately improve teaching and learning experiences in higher education. (Chan & Hu, 2023).

On the other hand, the significance of technology in schools should not be underestimated. The introduction of computers in education has made it easier for teachers to convey knowledge and for pupils to absorb it. The usage of technology has made teaching and learning a more delightful experience. (Raja & Nagasubramani, 2018). Teachers and students have varying perspectives on employing AI writing correction tools in the classroom, with some commonalities and variances. Surprisingly, most teachers and students did not consider using AI writing correction tools a violation of academic integrity. (Putra, 2023).

They are using generative artificial intelligence (AI) to improve the academic writing skills of a large student cohort at a distant learning institution (Maphoto et al., 2024). Personalized and interactive learning is one of ChatGPT's many advantages. Another is that it generates prompts for formative assessment activities, which give continuous feedback to improve instruction (Baidoo-Anu & Ansah, 2023). Outside of the classroom, AI-based podcast listening exercises for engineering students appear to be an effective tool for boosting students' listening comprehension abilities while stimulating curiosity and drive for further growth (Chaikovska et al., 2024).

However, bias, unfairness, and a lack of transparency and accountability in Artificial Intelligence (AI) systems, as well as the possibility of predictive models being abused for decision-making, have raised concerns about the ethical impact and unintended consequences of new technologies for society across all sectors where data-driven innovation is taking place.

(Ayling & Chapman, 2022). These tools have unquestionable merits, but also flaws that must be addressed. In this squib, we investigate how users might use these tools for individual learning and knowledge production to stimulate a collaborative effort to discover new insights (Cress & Kimmerle, 2023).

1.2. Problem Statement

AI generative tools quickly impact the universe right away. This program was created to work as humans to complete numerous things instead of people. AI provides a lot of crucial for people; therefore, for education, teachers and students can use it to process their teaching and learning easily and quickly to offer notions, do tasks, discuss, interact, and so on.

However, during the program, students face many troubles with these new AI generative tools that make them use with concern and worry. In reality, the English learner language at the National University of Chearsim Kamchaymear complains about this problem that they don't trust this program yet even though, the government has advertised these AI generative tools widely to apply in their field. Therefore, Sarin & Kimkong (2024) Mentioned the need for academic integrity policies in higher education, particularly in Cambodia, to address the unethical use of AI. It highlights the need for a comprehensive approach to address these concerns, urging stakeholders to take action and discuss implications for future research on AI use in Cambodian higher education.

In addition, the reason for this matter because students may not know how to access this program, they never joined to trainee any course before, and they feel insecure about the security and privacy when connected to process the generative tools for personal usage. Moreover, this AI generation needs a large amount of internet access every time, so students may not be comfortable with it. Another challenge is to run up with new technology changes every single day and demands user needs to update their ability with the new version and technical.

Throughout all this matter, a researcher should be solving and overcoming this problem by studying the student's perception of the impact of AI generative tools on learning the English language to prove and develop the program with security, trust, and confidence in the future.

1.3.Purpose of the study

The purpose of this study is to explore students' perception of the impact of AI generative tools in learning the English language focusing on opportunities, challenges, and ethics of using AI tools in the future.

1.4. Objective of the Study

The objectives of this study are to explore the following statement:

1. To examine the impact of AI tools on learners' independence, skill development, and task efficiency in learning the English language.
2. To identify the key challenges learners face when using AI generative tools in learning the English language.
3. To explore the ethical considerations for using AI generative tools in learning the English language.

1.5. Research Questions

To conduct this research study successfully, As the researcher, I decide to use three questions as the following:

1. How do AI tools impact learners' independence, skill development, and task efficiency in learning the English language?
2. What are the key challenges learners face when using AI generative tools in learning the English language?
3. What are the ethical considerations for using AI generative tools in learning the English language?

1.4. Significances of the Study

The significance of this study examined the students' perception of the impact of AI generative tools for learning the English language. This study will provide many things for the institute and involve the stakeholders in education. They gain numerous things such as developing the curriculum with the new method of understanding the student's needs and running with the new technology of AI generative tools by exploring the student's opportunities, challenges of using tools, and ethics for future usage. Besides this, to increase instructor and learner in using the new tools more deeply for interactive teaching and learning for education with new strategies smoothly.

Therefore, the new generation of researchers will gain a lot of knowledge from this study that they can follow up on this outcome and they may try to research extra about some parts that lack dealing or search in the familiar concern to this study in other era and problems in their context to join developing research in the future and share the new solution as a great document to each other.

1.5. Key terms definition

There are some specific key terms of this study include:

- **Perception:** refers to how sensory information is organized, interpreted, and consciously perceived (OpenStax & Learning, n.d.).
- **Artificial intelligence (AI)** is the ability of a digital computer or computer-controlled robot to execute tasks that are typically associated with intelligent beings. (*Artificial Intelligence (Ai) | Definition, Examples, Types, Applications, Companies, & Facts | Britannica, 2024*).
- **ChatGPT**, OpenAI's text-generating AI chatbot, has taken the globe by storm since its release in November 2022. What began as a tool for increasing productivity by

producing essays and code with brief text prompts has grown into a monster used by over 92% of Fortune 500 businesses (Stringer, 2024).

- **Generative AI** techniques are specifically designed to create completely new assets or drastically improve current ones. The tools we'll look at below are all excellent at creating original material, whether it's text, graphics, audio, or a combination of all of these. (*The 20 Best Generative Ai Tools in 2024 | Zapier*, n.d.).
- **Self-studying** is the process of teaching oneself. It is a learning environment in which students, rather than teachers, direct their progress. This is in contrast to the traditional paradigm of classroom instruction, in which teachers lead the lessons. (AdmissionSight, 2021).
- **Ethics** refers to logical rules of good and wrong that outline what people should do; these rules are typically expressed in terms of rights, duties, benefits to society, justice, or certain qualities. Examples of standards that impose reasonable responsibilities to abstain from rape, stealing, murder, assault, slander, and fraud are referred to as ethical standards. Loyalty, honesty, and compassion are often considered ethical norms. Furthermore, rights-related criteria like the right to privacy, the right to life, and the right to be free from harm are included in moral standards. Because they are based on consistent and solid justifications, these norms constitute suitable ethical benchmarks (University, n.d.).
- **AI tools** is a piece of software that solves issues and complete tasks by using artificial intelligence algorithms (*What Is an Ai Tool?*, n.d.).

1.6. Scope and limitation of the study

This research study will be conducted on the bachelor academic English students from year 2 to year 4 of the National University of Chearsim Kamchaymear Only because the time, material, and situation are limited. The study will develop the students' perception of the

impact of AI generative tools in learning the English language focusing on opportunities, challenges, and direction future.

1.7. Summary

In conclusion, this chapter provides a lot of main notions of the topic that can assist readers in understanding clearly the background of the AI generative tools in education, the benefits of AI generative tools for use, and why they are essential for teaching and learning. Furthermore, it guides us to obtain about the problem, purpose, objective, research questions, significance of the study, key terms, and limitations of the study. All of this may be useful for us to get information about the whole chapter is talking about.

CHAPTER TWO

LITERATURE REVIEW

The AI generative tools hit so badly in learning and teaching. Mostly educators and learners use this program to support their work effectively. Therefore, this chapter will guide you to know how the impact of AI generative tools affect education in the English language that developed from English language learning in digital programs, the impact of AI generative tools on education, students' opportunities to use AI tools, challenges of using AI generative tools, ethics of AI generative tools learning English language, empirical study, research gap, conceptual framework, and summary.

2.1. English language learning in digital program

The digital world presents new challenges for instructors. Teachers who were introduced to digital technology later in life struggle with it, whereas youngsters are familiar with it before the age of six. Technology can increase self-directed learning, a vital aspect of lifelong learning. Particularly, outside of educational contexts (Sert & Boynuegri, 2017).

The use of current technology marks a big step forward in contemporary English language education and learning. Most current English language teachers are actively utilizing a variety of technological devices aimed to improve instruction delivery. In terms of language teaching and learning, digital media has entered the classroom. In general, the use of technology has made teaching and learning more fascinating. They developed an image of being creative and, most importantly, inventive in their approach. "E-learning" or "Technology in Education" has become an important term in every educational setting. With the education system, 21st-century learners meet their technological needs. Traditional approaches are primarily lecture-based, but today's learning technologies are interactive. Recent Blogs, the Internet, Interactive Boards, Mobile Phones, Skype, Twitter, YouTube, and many other technologies have increased not only stimuli but also learner engagement and involvement in the classroom (Dash, 2022).

AI language learning tools use AI algorithms to increase users' foreign language skills. These technologies offer numerous benefits, including time-saving and tailored learning experiences, as well as exposure to diverse cultures. (Rebolledo Font de la Vall & Gonzalez Araya, 2023).

The impact of digital technology on English major programs in Cambodia. This article focuses on the use of technology in language acquisition. It also demonstrates that many programs, like Facebook, Telegram, Quizlet, and Flipgrid have been used to enhance language education, especially in English major programs. The chapter explores how digital technology has been used to teach English as a foreign language. (Heng et al., 2021).

The Digital Learning Classroom has the potential to improve academic learning for ELL students compared to those in traditional classrooms (i.e., without IWBs). Using a quasi-experimental methodology, the findings strongly suggest that IWBs can promote performance parity, reducing the achievement gap between ELL and ordinary students while enhancing ELL students' achievement. The paper presents pedagogical implications for ELL instructors in the context of the Digital Learning Classroom project implementation, as well as recommendations for further research on the Digital Learning Classroom in ELL classrooms. (López, 2010).

English language teachers are increasingly using technology to enhance their teaching methods. Digital media has significantly impacted language teaching and learning in classrooms. Modern technology has made teaching and learning more engaging. They established a reputation for creativity and innovation. The term "e-learning" or "Technology in Education" is often used in educational settings. 21st-century learners prioritize technology in education. Traditional teaching methods rely on lectures, but interactive learning tools are more prevalent today. Technological advancements such as blogs, the internet, interactive boards, mobile phones, Skype, Twitter, and YouTube have significantly enhanced communication (Dash, 2022).

English Language Learners (ELLs) require assistance in developing digital literacies in preparation for a future in which mastering new technologies is a natural process. Over the last few decades, technological innovations have altered how information is created, conveyed, and interpreted. The Internet and digital settings have provided more options for literacy practices to take place. Technology has altered social practices and literacy definitions, with transformational implications for the teaching and learning situations that ELLs encounter. (Yuan et al., 2019).

English Language Learners (ELLs) require support to build the obstacles that impede the establishment of successful programs are then addressed. These include a concentration on standards and testing, a lack of primary language assistance, a failure to differentiate between types of English learners, and a scarcity of teachers trained to work with English learners. Four keys to academic success for English learners are presented: engage students in a challenging, theme-based curriculum to develop academic concepts; draw on students' backgrounds—their experiences, cultures, and languages; organize collaborative activities and scaffold instruction to build students' academic English proficiency; and cultivate confident students who value school and themselves as learners (Freeman & Freeman, 2007).

Consequently, Artificial discretion is based on political viability, manageability, equity, efficacy, and efficiency. Artificial discretion can enhance administrative discretion at the task level in three main ways: enhancing scalability, lowering costs, and enhancing quality are the three main goals. However, there are also significant issues with equity, manageability, and political viability when it comes to artificial discretion (Young et al., 2019).

2.2. Impact of AI generative tools in education

The impact of artificial intelligence on higher education is growing. As essential drivers of student retention and learning achievement, generative AI tools such as translators, paraphrasers, and, most recently, chatbots can help students with their learning processes

(Delcker et al., 2024). Computers have been used in teaching for more than 20 years. Computer-based training (CBT) and computer-aided instruction (CAI) were the first technologies used to teach with computers. In these methods, instruction was not tailored to the learner's needs. (Beck et al., 1996).

Artificial intelligence (AI) has been increasingly popular in education in recent years. Specifically, educators have given mixed responses to generative AI chatbots that construct essays depending on student prompt input. Plagiarism, academic dishonesty, and a lack of critical thinking are examples of poor learning outcomes associated with generative AI chatbots. Positive learning and teaching approaches have an impact on informational literacy skills, including brainstorming, sentence structure, key ideas, supporting evidence, and references. These abilities can assist struggling writers overcome the fear, difficulties, and frustration they face in class. With conflicting perspectives in the research on the use of generative AI chatbots in education, their impact on student learning, and their success with informational learning skills, Christian schools can assist students in critically discerning AI chatbot responses. (Mason, 2024).

AI has been widely accepted and applied in education, particularly by educational institutions, in many forms. AI began as computer and computer-related technologies, progressing to web-based and online intelligent education systems, and finally to the use of embedded computer systems, along with other technologies, humanoid robots, and web-based chatbots to perform instructors' duties and functions independently or with instructors. Using these platforms, teachers have been able to execute various administrative responsibilities, such as reviewing and grading students' assignments, more effectively and efficiently, resulting in higher-quality teaching activities.

On the other hand, because the systems utilize machine learning and flexibility, curriculum, and content have been modified and individualized in line with students' needs, which has

fostered uptake and retention and improved learners' experiences and overall learning quality. (Gökçearslan et al., 2024).

The study by Owoc et al. (2021) Stated the benefits and obstacles of applying artificial intelligence in education, preceded by a brief review of AI principles and their progression over time. Furthermore, we examined recent AI technologies for learners and educators now available on the software market and evaluated their utility. Finally, we created a strategy implementation model with a five-stage generic procedure and related setup guide. To check and confirm their idea, we created three implementation techniques for three different higher education institutions.

Moreover, Artificial intelligence (AI)-based techniques and widespread access to vast volumes of urban big data enable the performance of novel analyses that were previously unfeasible because of data scarcity or high aggregation. The application of geo-localized big data and artificial intelligence-based techniques is examined, together with the implications for planning practice and specific research concerns in the field of urban planning and design. (Kamrowska-Zaluska, 2021).

Knowledge of how artificial intelligence (AI)-powered language learning tools can be used to enhance foreign language learning, as well as an evaluation of the opinions of language experts regarding the integration of AI into language learning and the limitations of AI models in foreign language education (Zaghlool et al., 2023).

2.3. Students' opportunities to use AI tools

There are numerous crucial for users in artificial intelligence including improving the learning experience, problem-solving in class, cooperative learning, independent learning, and so on.

The study of Namjoo et al. (2023) Highlighted students' experiences with AI-assisted self-study, with an emphasis on their use of AI tools, learning outcomes, perceived hurdles, and limitations, available assistance and resources, and overall views of AI in education. However,

a study by Dafoe et al., (2020), cooperative AI is a branch of artificial intelligence that studies and innovates to address cooperative problems. The research focuses on developing machine agents with essential capabilities, encouraging population collaboration, and performing AI research to gain insights. It combines previous research in multi-agent systems, game theory, human-machine interaction, natural language processing, and social tools.

Collaboration plays a crucial part in generative AI, allowing for different features such as grammar checks and innovative content development. This study helps academics and professionals select strategic tools and emphasizes the need for educated decision-making in collaborative initiatives. Integrating AI and NLP improves scholarly work, emphasizing the importance of efficient content creation in the digital era. (Malakar & Leeladharan, 2024). The project intends to develop a coherent theory and language, connect with people working on cooperation, and investigate essential cooperative skills such as understanding, communication, commitments, and institutions. Artificial intelligence (AI) and machine learning (ML) are set to alter medical practice, thanks to remarkable advances in data aggregation and deep learning algorithms. Orthopedics, in particular, is especially suited to harnessing the power of big data and, as a result, providing essential insight into improving the many parts of care given by orthopedic surgeons. (Helm et al., 2020).

The current study evaluated how people's risk and opportunity perceptions influence their readiness to employ AI. In addition, we looked at people's confidence in their risk and opportunity perceptions as a potential moderator. To that purpose, we carried out two online tests with $N = 246$ and $N = 495$ (representative) people to measure (i) risk and opportunity perception of AI, (ii) confidence in risk and opportunity perception of AI, and (iii) readiness to employ AI. As expected, the risk-opportunity perception of AI (opportunity minus risk perception) was positively connected with the likelihood of using AI. Contrary to our expectations, people's confidence in their risk and opportunity perceptions had no significant

effect on the strength of this link. Exploratory analyses revealed that the chance of using AI also depended on the circumstances of AI applications (medical, transportation, media, psychology) (Schwesig et al., 2023).

The most important educational opportunities will come from helping students learn with AI that is, supporting students in using AI tools to imagine, create, share, and learn rather than teaching them about AI. Learning with AI can also be the best way for students to learn about AI. (Resnick, 2024).

Generative AI in education also involves difficult ethical, social, and pedagogical issues that must be carefully negotiated to enable responsible and equitable implementation. Generative AI presents enormous promise for personalized learning, providing learners with educational experiences that are tuned to their specific requirements, interests, and talents. By using powerful algorithms, using machine learning techniques, AI systems can evaluate massive amounts of data in real-time to change training, curate information, and provide tailored support. This tailored approach increases learner engagement, motivation, and retention, resulting in better comprehension and mastery of academic concepts and abilities. Furthermore, Generative AI has the potential to democratize access to quality education on a worldwide scale by breaking down geographical, social, and physical obstacles. Online learning platforms, smartphone apps, and Virtual tutoring systems with AI-driven personalization features provide learners with adaptable and accessible pathways for skill improvement, professional success, and personal enrichment (Malik & Noul, 2024).

Neumann et al. (2021) Emphasized that most humanities and social science programs, as well as pre-service teacher preparation in educational sciences, include time-consuming reading and writing exercises that necessitate timely and high-quality help and evaluation. One-on-one mentoring is a popular technique to provide this help to pupils. However, due to time and

resource constraints at German universities, the benefits of individual feedback must be scaled successfully.

There are a lot of advantages to AI generative tools in learning the English language. Therefore, AI language learning tools use AI algorithms to increase users' foreign language skills. These technologies offer numerous benefits, including time-saving and tailored learning experiences, as well as exposure to diverse cultures. (Rebolledo Font de la Vall & Gonzalez Araya, 2023).

Artificial intelligence can help people learn from their experiences, digest large amounts of data, and manage tasks more effectively. However, there are differing perspectives on artificial intelligence's ability to govern student conduct and direct learning, increase educational system efficiency, provide notes and evaluations, minimize reliance on teachers, and promote social interaction. Several students also voiced concern about the potential loss of traditional educational professions, the price of installing artificial intelligence systems, programming, and error-processing mistakes, and the absence of human relationships in the classroom. (Al-Tkhayneh et al., 2023).

Artificial intelligence (AI) systems have transformed many parts of our daily lives and industries by providing unparalleled capabilities in automation, data analysis, and decision-making. Users/people are becoming addicted to AI tools and losing their ability to use their brains effectively. While AI technologies are tremendously useful when used, they can appear passive if we/the public stop communicating with them. This essay exposes the concepts of the pros and demerits of employing AI tools regularly (Thippanna et al., 2023). AI helps boost customer satisfaction, promotes employee retention, and may result in worker learning (Brynjolfsson et al., 2023).

According to Khanzode (n.d.) stated that artificial intelligence has significant benefits, including the ability to adapt and advance the history of robots. The following are the primary benefits of artificial intelligence (AI) Completed tasks faster than humans, easily did stressful

and complex tasks, completed difficult tasks in a short period, performed multiple functions at once, high success rate, minimal errors and flaws, increased efficiency in a short period, reduced space and size, calculated long-term and difficult circumstances, and explored unknown areas, such as space.

Here are some of the biggest drawbacks of using Artificial Intelligence (AI) in our daily life.

Misuse can result in large-scale destruction, program mismatches may occur when done against the directive, impact on human jobs, increased unemployment, dependence on programmers for creativity, lack of human touch, laziness among younger generations, and high time and cost requirements.

2.4. Challenges of AI generative tools

Artificial intelligence (AI) has begun to impact instruction and student learning, particularly in EFL classes. On the other hand, there have been discussions on whether or not AI could help kids study. Examining this matter from the viewpoint of the pupils is one way to look at it. (Sumakul et al., 2022). Recent advances in Artificial Intelligence (AI) have raised high expectations for AI's future impact on education and learning (AIED).

Frequently, these expectations have been founded on misunderstanding current technical possibilities, a lack of information about cutting-edge AI in education, and very restrictive perspectives on the functions of education in society (Holmes & Tuomi, 2022). Deep learning (DL), an algorithmic system of deep neural networks, is a type of artificial intelligence (AI) that exacerbates these worries because, for the most part, it is opaque or concealed from human comprehension.

AI tools have an impact on many different vocations, bringing up moral and societal issues. There was a clear need for responsible AI integration due to concerns about privacy, ethical use, and the displacement of jobs caused by AI. Reskilling initiatives to prepare the labor force for an AI-driven future as well as moral standards to guarantee the appropriate development

and application of AI tools. Knowledge of artificial intelligence's place in contemporary work environments provides legislators, educators, and business executives with useful information (Marquis et al., 2024).

In AI, this circumstance is frequently referred to as the "black box problem." It remains to be seen how much we can trust AI systems if we don't comprehend how they make their decisions. The need for trust grows as we entrust AI with more and more decision-making and depend on it more and more to protect important human goods like safety, security, and healthcare. (Von Eschenbach, 2021). Using the systematic review approach, a comprehensive analysis of pertinent and already available literature was conducted to determine the present area of study, give educators a thorough grasp of AI technology in the classroom, and suggest future lines of inquiry.

The implementation of AI in education has evolved in industrialized nations, according to the findings, and the majority of the study gained popularity during the Industry 4.0 era. (Gökçearsan et al., 2024). The study by Fitria (2023) Stated that students and teachers are concerned about Privacy and Security Concerns, Cost, Potential Bias, Ethical considerations, Transparency, and Fairness during their performance on learning and teaching in the class.

2.5. Ethics of AI generative tools

Large language models (LLMs), a type of generative AI, are fast revolutionizing both academic research and practical applications. However, talks on ethical principles for generative AI in science are still scattered, highlighting the urgent need for consensus-based standards. This paper provides a framework that covers five key themes: understanding model limitations and bias, respecting privacy, confidentiality, and copyright, avoiding plagiarism and policy violations, ensuring applications provide overall benefit, and using AI transparently and reproducibly. Common situations are presented to illustrate potential ethical transgressions. (Lin, 2024).

This study provides a complete overview for scholars, practitioners, and policymakers, covering ethical arguments on fairness, safety, harmful content, hallucinations, privacy, interaction hazards, security, alignment, societal implications, and more. We examine the findings, identify gaps in the literature, and investigate unsupported risk scenarios. (Hagendorff, 2024).

Generative AI techniques open up new and accessible media creation opportunities for young people. They pose ethical questions about fake media, data protection, privacy, and ownership of AI-generated art. As generative AI becomes more prevalent in adolescent products, they need to grasp its functionality and potential misuse. Students used prompt engineering to create future dreams, gained technical knowledge about generative AI's capabilities, limitations, and applications, and identified potential societal benefits and harms. (Ali et al., 2024). Over the last five years, business firms, academic institutions, and public-sector organizations have developed principles and standards for ethical artificial intelligence (AI).

However, despite an apparent agreement that AI should be 'ethical', there is disagreement regarding what constitutes 'ethical AI' and whether ethical constraints, technical standards, and best practices are required for its implementation. To see if there is a global consensus on these issues, we mapped and analyzed the present set of ethical AI principles and standards. Our results reveal a global convergence emerging around five ethical principles (transparency, justice, and fairness, nonmaleficence, responsibility, and privacy), with substantive divergence in terms of how these principles are interpreted, why they are deemed important, what issue, domain, or actors they pertain to, and how they should be implemented. Our findings emphasize the need to combine guideline creation with substantive ethical analysis and effective implementation techniques. (Jobin et al., 2019).

EbD-AI is an approach to AI system development that emphasizes ethics by design. The method describes recommended processes and actions at various stages of AI development that

aim to incorporate six ethical ideals or principles: agency, privacy, fairness, well-being, openness, and accountability. (Brey & Dainow, 2023; Dara et al., 2022).

The increasing use of AI, particularly machine learning, has led to a growing awareness of ethical issues. Existing legislation provides insufficient protection from AI harm, leading to the development of principle-based ethics codes. However, there is a gap between AI ethics theory and practical AI system design. Existing translational tools are either too flexible or too strict, making it difficult to embed AI ethics in algorithmic design. This raises the question of whether pro-ethical design efforts are futile and how AI ethics can be useful for practitioners (Morley et al., 2021).

2.6. Empirical study

There are numerous articles study that are relevant to this research. They have already found similar purposes but in different situations and contexts including the following:

The factors influencing IA perception among university students were identified through a literature review and previous studies on the IA perception of university students. Based on these findings, online questionnaires were developed and used to collect information from a sample of 120 students about their experiences with AI through an experiment, their thoughts about its use, and their concerns about the use of AI in the future. The findings could be valuable for universities and firms involved in the development of artificial intelligence tools (Sánchez & Duque, 2024).

OpenAI's new generative language model, ChatGPT, has received widespread criticism. A questionnaire was provided to 200 students via an online survey, and 30 students participated in semi-structured interviews to assess their perceptions of utilizing ChatGPT for learning. Overall, students rated ChatGPT's application positively. ChatGPT benefited students by saving time, offering knowledge, personalized teaching and feedback, and inspiring writing ideas. There were also various impediments to using ChatGPT Several methods were proposed

to enhance the use of ChatGPT in educational settings. Students reported difficulty assessing the quality and dependability of sources, appropriately citing sources, and correctly replacing words and idioms when using ChatGPT. To address concerns, potential solutions include verifying ChatGPT responses with reliable sources, using it as a reference or consultant tool, providing guidelines, and promoting academic integrity to ensure ethical use in academic contexts (Ngo, 2023).

Another relevant study mentions that the purpose of this survey is to look at Cambodian university students' experiences, perspectives, and attitudes concerning the use of Artificial Intelligence (AI) in English language instruction. According to the results of an online questionnaire administered to 328 Cambodian EFL university students (57% of whom were female), the majority of students had used AI tools or applications for English language acquisition. However, over 70% of them received no training on how to utilize AI for English language learning, leaving nearly half (44.51%) feeling just moderately prepared to use AI for English language learning. The biggest challenges in using AI tools or applications were worries regarding data privacy and security while engaging with AI. Major opportunities were linked to AI can help students complete class tasks, improve their learning gains, and learn a language via language translation tools (Sol et al., 2024).

Besides this, the purpose of this study was to learn more about how high school students view and feel about AI. Research regarding AI was conducted among 124 high school students in classes I through IV (aged 15 to 19). Although new technologies are Students accept that no AI system can replace human beings in education. Despite their differing opinions, they are positive about emerging technologies and believe that AI tools will benefit future teaching and learning (Baksa et al., 2024).

This study investigates university students' perspectives of generative AI (GenAI) technologies such as ChatGPT in higher education, with an emphasis on familiarity, willingness to interact,

potential benefits and obstacles, and effective integration. A survey of 399 undergraduate and postgraduate students from diverse disciplines in Hong Kong found a generally positive opinion toward GenAI in teaching and learning. Students saw the value in tailored learning support, writing and brainstorming assistance, and research and analysis capabilities. However, worries about accuracy, privacy, ethical issues, and the impact on human development, career possibilities, and societal values were raised. This study's findings can help inform policy decisions about the incorporation of GenAI technology into higher education. Understanding students' impressions and concerns allows policymakers to develop well-informed rules and policies for the responsible and effective use of GenAI tools, thereby improving teaching and learning experiences in higher education (Chan & Hu, 2023).

With its current breakthroughs, Artificial Intelligence (AI) has begun to influence how teachers teach and students learn, particularly in EFL courses. However, there have been disagreements about whether AI can help pupils learn or not. One approach to view this issue is from the eyes of the students. As a result, the purpose of this study was to investigate how students perceive the usage of artificial intelligence in their learning. Semi-structured interviews were conducted with eight EFL students at an Indonesian institution who had used AI software in their writing lessons. The findings revealed that pupils had good attitudes concerning the use of the AI app. The pupils enjoyed it. The children improved their writing skills thanks to the AI app. Furthermore, this study reveals that there are various factors to consider while integrating AI into writing classes (Sumakul et al., 2022).

Artificial Intelligence (AI) has grown ubiquitous in a variety of disciplines, including education. Many studies have proven value in the application of AI, notably in education because it adjusts to students' learning styles. Twenty-six teachers and 68 high school students took part in an online survey with two questionnaires to collect data. The findings revealed that, while teachers' and students' attitudes on the employment of artificial intelligence (AI)

tools in education differed, they generally agreed. While teachers answered that AI tools may help them run their classes more successfully and provide their students with more feedback, students stated that AI might assist make learning more efficient and enhanced through understanding and retention of material. On the other hand, there are certain drawbacks, such as the potential for misuse of cheating tools, diminished human ties, and job displacement for teachers and other educational professionals (Alcantara-Ebuena, n.d.).

Technology may increase self-directed learning, which is essential for lifelong learning. This is especially true outside of classroom settings. The study aimed to compare the perceptions of technology use skills among 5-8 graders in low- and high-income groups, as well as those of their English teachers. The study examined the relationship between self-directed language learners' views of their technology skills and those of their English teachers. The population of the study comprised 145 pupils. Inter-group comparisons and correlational research methodologies were used. The study found no significant difference in poor and high-income students' assessments of their own and English teachers' technology use skills. There was no association found between low/high-income judgments of technology use skills and those of English teachers. Finally, there was no correlation between self-directed learners' perceptions of their technology use skills and those of their English teachers. The educational ramifications of these discoveries were examined, with suggestions for creating more effective learning settings (Sert & Boynuegri, 2017).

This study looks at the parallels and variations in teacher and student opinions, the issue of academic integrity, and the feasibility of introducing AI writing correction tools into language teaching and learning. To answer the research questions, eighteen instructors and thirty-nine graduate students completed a closed and open-ended questionnaire. The data were gathered from the TESOL program at St. Andrews University's International Education Institute. The questionnaire was analyzed using Qualtrics to identify patterns from the Likert scale, and

thematic analysis was used to predict the themes obtained from the open-ended questionnaire. The findings reveal that teachers and students have varying perspectives on employing AI writing correction tools in the classroom, with some parallels and variances (Putra, 2023).

The purpose of this study is to determine the extent to which English as a foreign language learners use technology for self-directed language learning outside the classroom. The study uses a cross-sectional survey design and focuses on learner characteristics. It begins by looking into the existing language learner profiles of 512 English major university students, namely their autonomous language learning and out-of-class technology involvement. The findings revealed that more autonomously engaged pupils tend to have higher language learning proficiency versus the less independent group. Students who were more autonomously engaged spent more time each day and used more digital tools than those who were less autonomously engaged with technology (Dincer, 2020).

This study seeks to investigate learners' actions, perceptions, and attitudes toward ChatGPT use in English language acquisition. Participants were 120 I.T. students from Vietnam's Korea University of Information and Communication Technology and the University of DaNang, who were studying English as a non-specialized course. Data was gathered via multiple-choice questions, a 4-point Likert scale questionnaire, and in-depth interviews. Even though ChatGPT is effective for ESP vocabulary acquisition, translation, grammar checking, and paraphrasing, the findings emphasize the need for teacher training and a real classroom for students (Phuong, 2024).

2.7. Research gap

This current study tries to deal with students' perceptions of the impact of AI generative tools in learning English language performance in real class situations. Therefore, this study has developed three categories from the previous researchers that have found but in different fields and contextualized. It is extremely important to effect positively to educators and learners to

be involved in the era to take the opportunities that have been using AI generative tools; AI generative tools also provide the chance to develop their potential knowledge of this technology better in the future to people. Thus, the obstacles that are faced when accessing the tools put humans in challenges and stuck, yet they can handle and win that by learning this new digital that allows people to use it. In addition, it explores the ethics of using AI tools that make the user more trust and feel secure in the process. This facilitating makes AI tools widely opened around the world.

Moreover, the outcome of this thesis will align people with new theories to comprehend AI generative that create to help people in the era of 4.0 to work instead of many things such as completing tasks, writing assignments, running a business, creating programs or content that can work all era and so on. And then, AI works as humans like this: they can speak, ask, and answer people and do the job in the restaurant as well or other options that people need as well. To be sure, the field of this study focuses on learning the English language, The AI generative tools offer a lot of benefits to students by doing homework, discussing studying, cooperating in learning, supporter to students 24/7, guiding students as a map, asking and answer all the question, free programming using and so on. Throughout these experiences, students may obtain clearly about this finding and they will use new materials of AI without worrying anymore and can connect it to account accurately.

Furthermore, the framework is highly motivated for new researchers to study in other eras to find out the different methods of problems that that place is not solved or something is interesting to look up with new strategies.

The studying is developed variable as the following tools to measure the students' perception of the impact of the AI generative tools on learning the English language by finding out the opportunities, challenges, and ethics for students when using these tools on their studying. All of these frameworks are followed in Namjoo et al. (2023) investigated students' experiences

with AI-assisted self-study, focusing on its application, learning outcomes, perceived barriers, available resources, and general attitudes about AI in education; Fitria's 2023 study highlights students' and teachers' concerns about privacy, security, cost, bias, ethical considerations, transparency, and fairness in their learning and teaching performance; The technique outlines proposed processes and actions at different phases of AI development that try to incorporate six ethical values or principles: agency, privacy, fairness, well-being, openness, and responsibility (Brey & Dainow, 2023; Dara et al., 202)

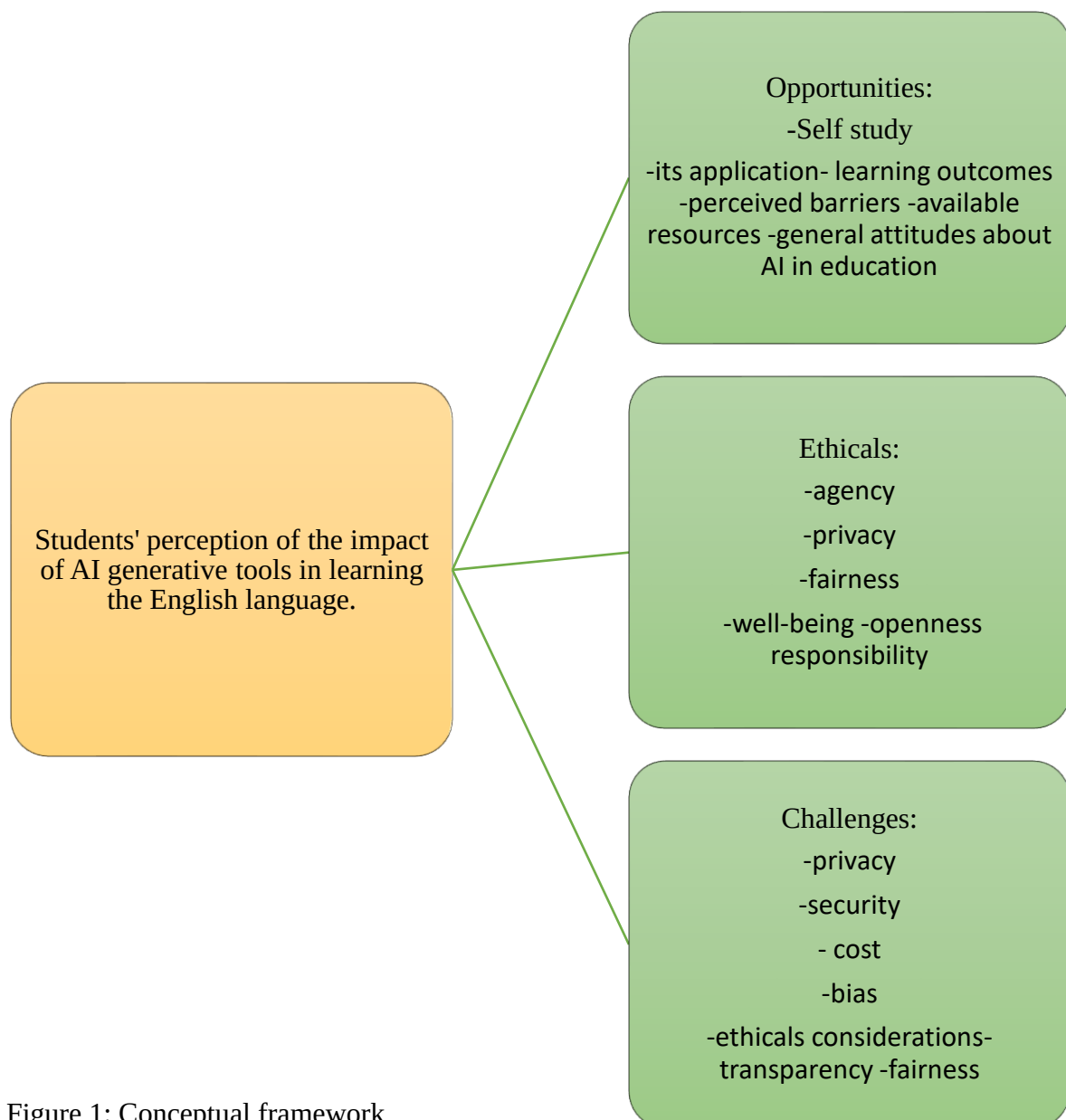


Figure 1: Conceptual framework

2.8. Summary

In the overview of chapter two, the researcher explored the concept from the previous study conducted by different researchers and places similar to this topic. It also emphasizes the correlation notion involved to the topic including English language learning in digital programs applied in learning and what is the benefit for students from these strategies, the impact of AI generative tools on education; and the pros and cons of this new program for the whole in education, students' opportunities of AI generative tools; how many students know about this digital program, challenges of using AI generative tools that user concern when they access to their field, and ethical of AI generative tools in the future process with quality of confidence and trust. Research gaps as a map for dealing with these issues, a conceptual framework to explore the variable that will be investigated in the real era.

CHAPTER THREE

METHODOLOGY

In the overview of this chapter, the researcher will define some techniques as a map to find the way to succeed in research by recovering the kind of paper, research site, participants, sampling method, data collection and procedure, and research ethics. All of these will help researchers or other guys who view the study more easily and know the way that research goes on their road to finding the result. The following are the concepts of this main content:

3.1. Research design

This study was developed using the quantitative approach in descriptive design that is evaluated as a logic number, scored, mean, percentage, skewness, kurtosis, and deviation to investigate students' perception of AI generative tools in learning the English language. The study also clarifies students' opportunities to use AI generative tools, The key challenges faced when using AI generative tools, and the ethics of using AI generative tools in the future.

3.2. Population and sampling

The National University of Cheasim Kamchaymear in Kampong Cham Branch was chosen to conduct this research that explored students' opportunities to use AI generative tools, the Challenges of AI tools, and the ethics for using AI generative tools for future utilization. Bachelor students of the department in English major (year 2 till year 4) in CSUK joined in this study to provide answers for the questionnaires that were prepared via Google form. The student must offer the logical answer of students' opportunities of AI generative tools in English language learning, the key challenges that they faced when using AI generative tools, and the ethical for improving AI tool's work in the future.

The researcher used probability random sampling technique to select the participants to collect the information for this study to answer the questionnaires that investigated students' opportunities, challenges, and ethics of AI generative in learning the English language.

3.3. Data collection and procedure

The study will examine students' perceptions of the impact of AI-generative tools on learning the English language and examine their opportunities, challenges, and ethics regarding AI-generated tools.

Initially, the research required a permission letter from the school director to facilitate me to conduct this thesis. Then select the day I go to the survey and request the contact of students in each class to make it easy to drop the questionnaires in the group. And the researcher goes directly to assist this survey smoothly. Ather researcher collected the data by allowing the participant to fill out the questionnaires via Google form for around 20-30 minutes to offer the answer in each class, so that, the information was saved. And then, the information will be evaluated after the required amount of data has been collected. Therefore, the result will be present from the information collected. The process of this collection acts as the following diagram:

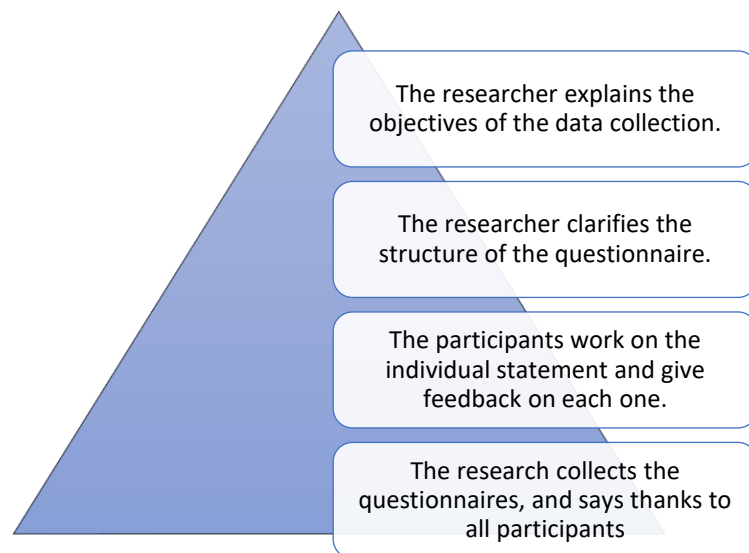


Figure 2: Data collection and procedures

3.4. Research instrument

To conduct this research, the following will be used as tools in collecting data, surveys, and questionnaires will be shown. Also, the researcher will use Google Forms to survey the college students in the English program at the National University of Cheasim Kamchaymear in

Kampong Cham province. As data has been collected, the obvious way to analyze is content analysis. Hence, we have to arrange the data in some short-order fashion that will make the data easy to analyze.

To examine the impact of AI tools on learners' independence, skill development, and task efficiency in learning the English language, the researcher decided to select the questionnaire to collect the data. The tool of the questionnaire is developed into four parts. The first part is relevant to student information such as age, gender, career, education, and marriage status.

The second part explored the students' opportunities to use AI generative tools in learning the English language through a rating scale ('Strongly disagree=1', 'Disagree=2', 'Ungiven=3', 'Agree=4', and 'Strongly agree=5') to investigate student opportunities of using AI generative tools to learn the English language. Tools developed by Namjoo et al. (2023) investigated students' experiences with AI-assisted self-study in their learning.

The next part is the key challenges of AI generative in learning the English language via a rating scale as well ('strongly disagree=1' 'disagree=2' 'ungive=3' 'agree=4' 'strongly agree=5'). To find out the challenges of using AI generative tools to learn English. Tools to mismeasure students' challenges to follow up Fitria's 2023 study highlights students' and teachers' concerns about privacy, security, cost, bias, ethical considerations, transparency, and fairness in their learning.

The last part is to survey the ethics of AI generative tools on learning the English language in the future by rating scale answering ('strongly disagree=1' 'disagree=2' 'ungive=3' 'agree=4' 'strongly agree=5'). To explore the ethics of using AI generative tools in learning the English language in the future. Tools for investigation of these categories are approved from the technique outlines proposed processes and actions at different phases of AI development that try to incorporate six ethical values or principles: agency, privacy, fairness, well-being, openness, and responsibility (Brey & Dainow, 2023; Dara et al., 2022).

3.5. Validity and reliability

3.5.1. Validity

Validity is an absolute requirement in quantitative research. Because an invalid test or instrument is useless, validity is critical to doing worthwhile analysis. The ability of an instrument to calculate is a quality indicator. A key component of ensuring the study produces positive results is the validity and reliability of the scales utilized. As a result, it helps to know how the researchers accurately estimate validity and reliability. This study's primary goals are to supply resources for further research as well as details on how the researchers plan to assess the validity and reliability of the scales they employ in their empirical investigations. To achieve this, the study introduces the concepts of validity and reliability and provides thorough descriptions of the primary techniques utilized in their evaluation along with examples drawn from the literature. It is estimated that this compilation study will draw on the (Register-Brown & Hong, 2014).

Educational technologists have been experimenting with quantitative content analysis (QCA) as a research technique for the past fifteen years. Despite being described as an objective and methodical process for characterizing communication, published reports do not provide readers with enough proof of either quality. This paper makes the case that QCA ought to be thought of as a type of measurement and testing. If this reasoning is persuasive, many of the issues surrounding QCA studies can be categorized under the clear-cut category of test validity. There are two sets of processes offered for determining a QCA coding protocol's validity: (a) creating a theoretically sound protocol and (b) conducting an empirical investigation to confirm the correctness of the protocol (Rourke & Anderson, 2004)

Compared to qualitative research investigations, quantitative studies provide more evidence of validity. There is a lack of widely agreed upon standards to evaluate the validity of qualitative studies due to the range of qualitative research methods and procedures; the use of these

investigations is also called into question. As a result, we contend in this work that, rather than being the result of a single test or research phase, qualitative research should embrace a processual view approach to validity. Processual validity aids in the reflection and direction of good research as well as its support. We offer the procedural technique used by one of the coauthors when developing a research project to demonstrate our methodology (Junior et al., 2019). Three experts in the related fields confirmed using the current study tools. Thus, the tools used are valid and useable (see Appendix).

3.5.2. Reliability

The reliability of data and results is critical in any research process. Replicability, correctness, stability, and trustworthiness are all factors that contribute to the analysis's reliability. This reliability implies that the analysis would yield the same results if it witnessed the same event twice or more. An online survey was used to gauge the produced model. The validity and reliability of the questionnaire as a measuring tool were assessed using multiple correlation, factor analysis, and Cronbach's alpha. Factor regression coefficients were used to objectively determine the weights of the criteria (Bassioni et al., 2008).

There were nine devices found that were meant to measure DUP. Although extremely variable, their inter-rater reliability was judged to be adequate to exceptional. The scant data that is currently available does not rule out the potential that any one instrument was distinctly superior to the others, although this investigation did not demonstrate this. A variety of outcomes were also substantially correlated with DUP, albeit primarily with modest impact sizes. Ad hoc clinical interviews without the use of instruments, however, continued to be the most popular method for determining DUP. Studies varied in their definitions of when psychosis and treatment began (Register-Brown & Hong, 2014).

There are insufficient research providing data on clinical samples. It should be, "Twenty-four studies included clinical samples, and eight studies included nonclinical samples," instead of,

"Four studies included clinical samples, and eight studies included nonclinical samples."] We statistically assessed the relative validity and reliability of continuous (i.e., dimensional) and discrete (i.e., categorical) measures of psychopathology in 2 meta-analyses with 58 studies and 59,575 participants. Overall, the results point to a predicted rise in validity and reliability of 37% and 15%, respectively, when a continuous rather than discrete measure of psychopathology is used. There is minimal evidence of exceptions to this rise, which is seen in all sample types and manifestations of psychopathology (Markon et al., 2011).

Table 3.1. Reliability of the Indicators According to Cronbach's alpha's Analysis

Constructs	Number of Statements	Cronbach's alpha
Opportunities	10	0.87
Challenges	10	0.76
Ethics	10	0.90

Table 3.1 presents the reliability analysis of various constructs as measured by Cronbach's alpha, detailing the number of statements associated with each construct and their corresponding alpha values, which indicate internal consistency. The construct of "Opportunities" includes 10 statements and has a Cronbach's alpha of 0.87, falling within the "Good" range ($0.9 > \alpha \geq 0.8$) and indicating a strong level of internal consistency among the items. The construct "Challenges" also consists of 10 statements, with an alpha value of 0.76, placing it in the "Acceptable" range ($0.8 > \alpha \geq 0.7$), suggesting a decent level of internal consistency but indicating room for improvement. Meanwhile, the "Ethics" construct, which also contains 10 statements, achieves a Cronbach's alpha of 0.90, categorizing it in the "Excellent" range ($\alpha \geq 0.9$) and demonstrating a very high level of internal consistency among its items. Overall, the alpha coefficients highlight that the constructs of opportunities and ethics

are measured reliably, while the challenges construct is acceptable but could benefit from further refinement to enhance its internal consistency.

Table 3.2. Selection of the Alpha Coefficient

Cronbach's alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Adapted from Siswaningsih et al. (2017, p. 7).

The table shows the ranges of Cronbach's alpha values and the accompanying internal consistency levels. An alpha of 0.9 or higher is regarded as exceptional, and values in the range of 0.8 to 0.9 are classified as good in the table. Alpha values that fall between 0.6 and 0.7 are deemed worrisome, whereas those that fall between 0.7 and 0.8 are deemed acceptable. Any Cronbach's alpha value between 0.5 and 0.6 is regarded as poor by the researcher, and any number below 0.5 is deemed unacceptable. This approach of classification helps researchers evaluate the validity of their measurement instruments and guarantees an adequate assessment of the internal consistency of the items.

3.6. Data Analysis

For the result of a questionnaire that was obtained from respondents, the researcher used SPSS Version 27.0 in the descriptive approach. This method generates the logic number, mean, score, percentage, skewness, kurtosis, and deviation of the finding. It focuses on providing a

comprehensive and precise representation of the data collected, which can be valuable for generating hypotheses, exploring trends, and identifying patterns in the statistics.

3.7. Ethics of research

This ethical viewpoint was gathered from the Institute of Foreign Languages at the National University of Cheasim Kamchaymear. The formal letters were written by the Institute of Foreign Languages at the National University of Cheasim Kamchaymear. The subjects are offered the option of participating or not participating from the start of the project. Students must have entire freedom in deciding whether or not to participate. All participants are assured that they will stay anonymous and that no information from the surveys will be used to identify them. Several ethical issues were taken into account to ensure that the study was conducted properly. To adhere to ethical issues when conducting the study, all participants gave verbal consent to be interviewed and participate in the research. As a result, after the researcher approached them and described the research goal and process, the participants freely agreed to participate in the study. While it is normal practice to get written consent, experts believe that excessively formalized methods of obtaining consent should be avoided in favor of cultivating relationships that maintain ongoing ethical considerations for participants. The consent form that served as a guideline for the research/consent process is included as an appendix. The goal of the research will be conveyed to the participants, along with the fact that their information will be kept confidential and that the exact content of individual interviews will only be reviewed with the supervisor. The supervisors and participants were completely unfamiliar to one another. It is the secret for participants to complete a questionnaire.

3.8. Summary

To conclude, the recap for this chapter involves the research designed to collect the data from the study field such as defining the kind of paper as a quantitative approach in descriptive design, research site refers to the place to study in is NUCK Kampong Cham province,

participants included 120 of bachelor students of English major, mean multi-stage cluster sampling method, data collection, and procedure by using questionnaires via google form, data analysis using SPSS 27.0, ethical research for participation for trust in joining.

CHAPTER FOUR

FINDINGS

The overview of this content will explore the result that comes from collecting the data among 120 students at the National University of Chearsim Kamchaymear. There are four tables on these survey questionnaires. The first table is demographic information of the sample including sex, age, and level. The second table is about questionnaires on opportunities for using AI generative tools. There are ten items in this variable. The third table explores the challenges of AI generative tools including ten items as well. The last table examines the ethics of using AI generative tools including ten items too.

4.1. Demographic Information of the Samples

Table 4.1. Demographic Information of the Samples (n = 120)

Variables	Values	Number	Percentages
Sex	Male	38	68.3
	Female	82	31.7
Age	16-25	103	85.8
	26-30	14	11.7
	31-Over	03	2.5
Year	Year 2	40	33.3
	Year 3	47	39.2
	Year 4	33	27.5

Table 4.1 shows the demographic information for the sample population of 120 respondents. In terms of gender, males make up 68.3% (38 persons), while females make up 31.7% (82 individuals). In terms of age distribution, 85.8% of respondents (103 in total) are between the ages of 16 and 25, showing a primarily young demographic. The elder age categories are underrepresented, with 11.7% (14 persons) aged 26 to 30 and only 2.5% (3 individuals) aged

31 and up. Furthermore, the year of research shows a diverse representation among respondents: Year 3 participants are the largest group at 39.2% (47 persons), followed by Year 2 at 33.3% (40 individuals) and Year 4 at 27.5% (33 individuals). Overall, the sample consists primarily of young males, with a balanced distribution over the different years of research.

4.2. Opportunities of using AI tools for learning the English language

Table 4.2. Opportunities of using AI tools for learning the English language

Statements	N	Min	Max	M	SD
1. I become an independent learner.	120	1.00	5.00	3.7083	.94732
2. I can improve macro skills in English (reading, listening, writing, speaking).	120	1.00	5.00	3.9083	.92578
3. I complete tasks easily and quickly.	120	1.00	5.00	3.9667	.68518
4. My mind is opened to new ways of learning.	120	1.00	5.00	3.8000	.70532
5. I can cooperatively learn with AI tools.	120	1.00	5.00	4.1083	.88684
6. I can develop skills in using new technology.	120	1.00	5.00	4.0750	.80087
7. I get more experience in learning English.	120	1.00	5.00	3.9750	1.03276
8. I can use AI tools for 24/7 support.	120	1.00	5.00	3.8667	.78786

9. I can use AI tools to create slides and other content designs.	120	1.00	5.00	4.1417	.67731
10. I can run up to the new generation of technology.	120	1.00	5.00	3.5917	.88399
Overall	120	1.70	5.00	3.9142	.57237

The data presented in Table 4.2 highlights several opportunities that Cambodian university students perceive in using AI tools for learning the English language. The participants generally feel that AI contributes positively to their learning, with an overall mean score of 3.91. One of the significant findings is that AI tools help learners become more independent, as reflected by a mean score of 3.71. Additionally, AI is seen as useful for improving macro skills in English, such as reading, listening, writing, and speaking, with a higher mean of 3.91. Students also appreciate the efficiency AI provides, as indicated by a mean score of 3.97 for completing tasks quickly and easily.

AI tools are regarded as opening new ways of learning, with a mean score of 3.80, and fostering cooperative learning with a notably high mean of 4.11, suggesting that students find AI beneficial for collaborative efforts. The development of technological skills is another area where AI proves advantageous, receiving a mean score of 4.08. Students also feel they gain more experience in learning English through AI, as reflected by a mean of 3.98. The constant availability of AI tools, offering 24/7 support, is valued, with a mean score of 3.87.

One of the most significant opportunities identified is the ability to use AI for creating slides and other content designs, which received the highest mean score of 4.14. However, the lowest mean score of 3.59 pertains to keeping up with new technological trends, indicating that while students appreciate AI, they may feel less confident about staying current with rapidly

advancing technologies. Overall, the data suggests that while there is strong recognition of AI's benefits in language learning, there are some areas where students express varying levels of confidence.

4.3. Challenges of using AI generative tools in learning the English language

Table 4.3. Challenges of using AI generative tools in learning the English language

Statements	N	Min	Max	M	SD
11. I lack the of use technology to access AI generative tools.	120	1.00	5.00	3.7750	.91176
12. I am concerned about my account being hacked when connecting to AI tools	120	1.00	5.00	3.0833	1.00070
13. Paying the most cost to process AI tools.	120	1.00	5.00	3.0583	.95527
14. AI provides bias and errors in information when generating tasks.	120	1.00	5.00	3.4667	.94321
15. AI tools have limitations of using AI generative tools (time, space, source...).	120	1.00	5.00	3.5167	1.05307
16. AI can reduce human critical thinking and self-practice.	120	1.00	5.00	2.9417	1.10230

17. I cut off interaction and engagement with the environment of learning.	120	1.00	5.00	3.1833	.97862
18. I don't know how to connect with AI Tools.	120	1.00	5.00	3.1667	1.02353
19. I feel untrusted about using AI generative tools.	120	1.00	5.00	3.6333	.94321
20. I spend a lot of time on the internet accessing it.	120	1.00	5.00	4.1250	1.03358
Overall	120	1.80	5.00	3.3950	.56700

Table 4.3 presents data on various challenges associated with using AI generative tools in learning the English language, based on responses from 120 participants. Each statement is evaluated on a scale from 1 to 5, with the mean (M) and standard deviation (SD) provided for each. The data indicate that the participants have a moderate level of concern regarding their ability to utilize technology effectively, as shown by a mean score of 3.78 for the statement about lacking the skills to access AI generative tools. Participants also expressed apprehension about account security when engaging with these tools, as indicated by a mean score of 3.08. Furthermore, concerns about the costs associated with using AI tools were reflected in a mean score of 3.06.

Bias and errors in the information generated by AI tools were noted as challenges, with a mean score of 3.47 highlighting this issue. Additionally, limitations in using AI tools were acknowledged, with a mean score of 3.52, underscoring concerns related to constraints such as time and resources. Some participants indicated that AI might diminish human critical thinking and self-practice, with a lower mean of 2.94 reflecting this concern. Interaction and

engagement with learning environments were also seen as potentially compromised, resulting in a mean score of 3.18.

On the question of familiarity with AI tools, participants showed moderate uncertainty, illustrated by a mean score of 3.17. Trust issues regarding the use of AI generative tools were observed, with a mean of 3.63 indicating a degree of skepticism. Lastly, the participants reported high internet usage for accessing AI tools, evident in a mean score of 4.13. Overall, participants expressed varying degrees of concern regarding the challenges posed by AI generative tools in language learning, with an overall mean of 3.40. The standard deviations across the items suggest a relatively consistent perception of these challenges among the respondents.

4.4. Ethical of using AI generative tools in learning the English language

Table 4.4. Ethical of using AI generative tools in learning the English language

Statements	N	Min	Max	M	SD
21. AI tools should keep the privacy and security of users' personal account information.	120	1.00	5.00	3.8833	.77982
22. AI tools should offer users with low price to generate information.	120	1.00	5.00	4.0667	.71870
23. AI tools should set clear policies for using AI generative tools.	120	1.00	5.00	4.2083	.73216

24. AI tools should show up with clear information about the trust in using AI.	120	1.00	5.00	4.0167	.88861
25. AI tools should have open- course training for people widely.	120	1.00	5.00	4.0417	.83410
26. AI tools should use easy steps to connect.	120	1.00	5.00	3.8667	.87863
27. AI tools should allow big space for use.	120	1.00	5.00	4.1667	.77061
28. AI tools give true information to users.	120	1.00	5.00	3.8417	.97011
29. AI tools should sign up for free.	120	1.00	5.00	4.2750	.73293
30. AI tools should assign people with problems.	120	1.00	5.00	4.2750	.73293
Overall	120	1.50	5.00	4.0642	.59108

Table 4.4 outlines ethical considerations associated with using AI generative tools in learning the English language, based on the responses from 120 participants. Each statement is assessed on a scale ranging from 1 to 5, with corresponding mean scores (M) and standard deviations (SD) provided for each item. The results reflect a strong consensus among participants regarding the necessity of ethical practices in AI tool usage.

The statement emphasizing that AI tools should ensure the privacy and security of users' personal account information received a mean score of 3.88, indicating a recognition of the

importance of user safety. Participants also strongly favored the idea that AI tools should be affordable, as indicated by a mean score of 4.07, reflecting a desire for cost-effective options for generating information. The need for clear policies governing the use of AI generative tools was highlighted, with a mean of 4.21, suggesting that participants value transparency and structured guidelines in this context.

Moreover, the expectation for AI tools to provide clear information about trustworthiness scored a mean of 4.02, indicating participants' desire for assurance regarding the reliability of AI-generated content. There was also support for open-course training opportunities, with a mean of 4.04, reflecting a belief in accessible education for users. Participants expressed a preference for AI tools that feature user-friendly connection processes, as shown by a mean score of 3.87, and large usability capacities, evidenced by a mean of 4.17.

Participants indicated confidence in the accuracy of AI tools, scoring 3.84 on the statement about the provision of true information to users. The notion that AI tools should allow free sign-up garnered strong support, with a mean score of 4.28, along with a similar belief in the need for AI tools to assist users experiencing difficulties, also receiving a mean score of 4.28. Overall, the data reveals a strong inclination towards ethical standards in using AI generative tools, reflected in an overall mean of 4.06, with relatively low standard deviation values indicating a consensus among participants on these ethical issues.

4.5. Summary

The results of a survey on the application of AI generative tools in English language acquisition, which was completed by 120 students at the National University of Chearsim Kamchaymear, are presented in Chapter IV. Based on the demographic data, the sample is predominantly young, with 85.8% of respondents being between the ages of 16 and 25, and there are more men (68.3%) than women. The report highlights a generally positive outlook

and cites several opportunities related to deploying AI tools, especially in fields like content production and the development of technological skills. Nonetheless, several difficulties are mentioned, such as worries about excessive internet use, obstacles to technical expertise, security threats, and trust issues with AI technologies. The participants highlighted the importance of accessibility, affordability, privacy protection, and the construction of providing precise information and transparent policies to guarantee confidence. Overall, the chapter emphasizes the possible advantages of integrating AI into education while highlighting areas that still need work to increase user experience and confidence.

CHAPTER FIVE

DISCUSSION

Chapter V addresses the study's findings, examining students' attitudes toward the employment of AI generative tools for English language learning. It highlights the potential, problems, and ethical issues raised by responders. The chapter also compares these findings to earlier research, revealing consistent patterns in the benefits and concerns related to AI in education, as well as a steady shift in student attitudes toward maximizing AI's practical benefits and tackling integration challenges.

5.1. Summary of finding

The study of 120 students at the National University of Chearsim Kamchaymear reveals a hopeful outlook on employing AI generative tools for English language acquisition, while also outlining obstacles and ethical concerns that must be addressed. Respondents, particularly young guys, believe AI has great promise for practical applications such as content creation and collaborative learning. However, worries about increased internet usage, technological challenges, security issues, and associated expenses point to hurdles to successful utilization. Ethically, the participants underline the necessity of free access, clear policies, and user support, as well as the need to preserve privacy and provide accurate information. Despite acknowledging the benefits of AI, the students' worries highlight the need for changes in accessibility, security, and transparency to encourage more confidence and more widespread adoption of AI technologies in education.

5.2. Comparison of Current Findings with the Previous Studies

5.2.1. Opportunities of using AI generative tools in learning the English language

The poll results show that students are favorable about AI tools, notably their potential to create content ($M = 4.1417$), improve collaboration ($M = 4.1083$), and gain new technological

abilities ($M = 4.0750$). This shows that students value AI's practical applications and involvement in improving language learning experiences.

Scholars such as Noviyanti (2020) and Nur Fitria (2021), have found that AI tools are useful for collaborative learning and practical language tasks like pronunciation training and grammar correction. This research found that AI's efficacy lies in its ability to provide interactive and individualized learning experiences, consistent with existing findings. However, previous research frequently emphasized the importance of AI in individual learning (e.g., chatbots for conversational practice), whereas the current findings indicate a more collaborative and task-oriented approach. The project investigates how ICT and AI technologies might improve students' communication abilities and pinpoint the causes of problems. It seeks to offer suggestions for improved English language training and acquisition. ICT students outperformed non-ICT students in speaking assessments, according to a 100-student experiment. According to the study, AI and technology can greatly enhance ESL students' communication abilities (Madhavi et al., 2023).

5.2.2. Challenges of using AI generative tools in learning the English language

The current study's issues include high internet consumption requirements ($M = 4.1250$), technological difficulties ($M = 3.7750$), and security concerns such as hacking ($M = 3.0833$). The hesitation regarding adjusting to new technological generations ($M = 3.5917$) also surfaced as a barrier for participants—earlier research by Rebolledo Font de la Vall & Gonzalez Araya (2023) and Nguyen et al. (2021) Raised similar technical and security problems, highlighting that users frequently encounter constraints such as limited internet connection and data privacy difficulties while using AI products. They did, however, find a stronger emphasis on the financial burden and steep learning curve associated with mastering AI technologies, which appears to be less prevalent in the current findings. This change could indicate an increase in user familiarity with AI tools or a shift in the types of AI technologies that are now more user-

friendly. Successful integration of artificial intelligence (AI) and big data solutions into smart industrial applications, with a focus on data-related challenges such as accessibility, bias, auditing, management, interpretability, communication, and various security and adversarial attack threats (Jagatheesaperumal et al., 2022).

5.2.3. Ethics of using AI generative tools in learning the English language

Ethical considerations in the current study revolve around the necessity for free access, transparent policies, and user support, with a high emphasis on privacy and dependability ($M = 3.8833$ and 4.0167 , respectively). Previous studies, such as Devineni (2024), have also underlined the need for privacy and data security in AI applications. They did, however, address the ethical issues of AI replacing human instructors, as well as the potential impact on critical thinking and learner autonomy. In contrast, the current study expresses less concern in this area, with a relatively low score for the loss of critical thinking skills ($M = 2.9417$). This distinction could imply either a changing understanding of AI as a supplementary tool rather than a replacement, or an increased familiarity and acceptance of AI's role in learning settings. The new findings are consistent with earlier research that has identified AI's involvement in improving practical and collaborative learning experiences. Challenges such as technological challenges, security concerns, and internet usage are common topics, but the current study places less attention on the financial burden and more emphasis on AI's useful applications. Ethical problems remain the same, with privacy and openness being the fundamental considerations. However, the current study's lower concern over AI replacing critical thinking may indicate a move toward viewing AI as a complimentary, rather than disruptive, force in education.

These comparisons show that while essential challenges like accessibility, privacy, and technical assistance exist, there is a gradual shift in student attitudes, focusing more on maximizing AI's practical benefits and addressing its integration challenges.

5.3. Summary

The study's conclusions are summed up in Chapter V, which demonstrates that National University of Chearsim Kamchaymear students typically see AI generative tools as helpful for learning English, especially for content production and collaboration. They do, however, have concerns around internet usage, difficulties with technology, security, and expenses. They stress the importance of open access, transparent rules, and privacy protection from an ethical standpoint. The chapter examines how these findings compare to earlier research, identifying recurring difficulties but also emphasizing a change in perspective from seeing AI as a disruptive technology to one that is useful and supportive of education.

CHAPTER SIX

CONCLUSION

This study looks into the views of students at the National University of Chearsim Kamchaymear about employing AI generative tools for English language acquisition. Understanding the impact and potential challenges of AI in education is critical as it becomes more widely used. The study investigates the advantages of AI tools, such as content creation and collaboration, as well as the challenges students face, such as technological limitations, internet connection, and security concerns. The study also looks at the ethical issues of using AI, with the goal of providing insights into how to improve AI integration in educational contexts.

6.1. Conclusion

The survey results provide a complete overview of students' attitudes toward the usage of AI generative tools for English language learning at the National University of Chearsim Kamchaymear. Overall, the findings are favorable, with students acknowledging the practical and collaborative benefits of AI in improving their learning experiences. They value AI's function in content creation, technological skill improvement, and efficient support for learning tasks. However, other hurdles persist, including worries about internet availability, technological difficulties, and security risks, all of which point to impediments to effective implementation.

When compared to previous research, there is a noticeable change toward a more hopeful and practical view of AI's involvement in education, yet technical and ethical problems like privacy and access exist. Students AI appears to be viewed as a supplement to, rather than a replacement for, traditional learning methods. This trend may imply that learners are more familiar with and embrace AI technology, highlighting areas for future development such as boosting accessibility, lowering security threats, and offering technical support. To summarize, while

the prospects for employing AI in language learning are excellent, resolving these problems will be critical to maximizing its effectiveness and increasing student confidence and participation.

6.2. Recommendation and implication

6.2.1. Ministry of Education of Youth and sport

Creating thorough regulations that guarantee the moral and acceptable application of AI in learning environments is crucial. To foster confidence and transparency in the deployment of AI, these regulations ought to cover important topics like academic integrity, data protection, and privacy. Furthermore, the Ministry need to give top priority to enhancing the availability of digital technology by developing internet infrastructure, particularly in rural regions, and offering reasonably priced technology solutions to colleges and institutions. This will guarantee that every educator and student have an equal chance to gain from AI tools. In addition, it is imperative to set up national training programs for teachers to familiarize them with AI tools and their potential uses in language instruction. Teachers that receive this kind of training will be more empowered and capable of utilizing this technology in the classroom.

6.2.2. Educational Institute

Integrating AI literacy into the curriculum is crucial to ensuring that students have the knowledge and abilities needed to use generative AI tools responsibly and successfully. AI integration into the curriculum will improve students' digital literacy while preparing them for the needs of a society that is becoming more and more AI-driven. Universities should also give students access to strong support networks that include advice on how to utilize AI tools sensibly and safely. Access to resources on cybersecurity and ethical AI usage best practices is part of this. Another top objective should be keeping an eye on and assessing how AI tools are being used in schools. By forming specialized committees, it will be possible to guarantee that

AI tools are used to improve learning outcomes while reducing the possibility of abuse or over-reliance, which might degrade the educational process.

6.2.3. Educators

Adopting AI-generated tools as additional instructional aids rather than as a replacement should be the focus. Instructors should concentrate on utilizing AI to improve students' independence, inventiveness, and participation, making sure that technology enhances rather than takes over the learning process. To keep teachers abreast of the most recent developments in artificial intelligence and to teach them how to successfully incorporate these technologies into the classroom, professional development opportunities must be offered on a constant basis. Educators should also stress the need of ethics and critical thinking when utilizing AI systems. Responsible and informed users will be developed by teaching students how to critically assess AI-generated material and encouraging an awareness of the ethical implications of AI use.

Several recommendations are made for further study to improve the comprehension and practical application of AI generative tools in English language acquisition, based on the findings and conclusions. First and foremost, future research should investigate ways to enhance accessibility and lower technological obstacles, emphasizing creating low-bandwidth AI solutions or substitute delivery techniques that demand less internet usage and technological know-how. Furthermore, given the development of autonomous learning skills received a lower score, future research might look into ways to improve autonomy and critical thinking through AI-assisted programs and how AI tools can support these skills more effectively. The results also brought attention to security and privacy issues; hence, future studies should examine the efficacy of current privacy mechanisms and suggest improvements for safeguarding user data. It is advised that longitudinal research be used to assess the long-term effects of AI tools on academic performance in general, learning outcomes, and student

engagement, offering insights into the long-term advantages or possible disadvantages of AI integration in education.

Furthermore, it is imperative to design AI solutions that are context-specific and culturally flexible. The goal of research could be to ensure that AI tools are applicable and efficient for a variety of student demographics by customizing them to meet local requirements and language learning goals. More research is also necessary on the ethical consequences of AI use, including privacy, trust, and costs. Studies could look at student perspectives toward AI ethics and how they relate to the creation of ethical frameworks in education, as well as how educational institutions can design policies and standards that address these challenges.

Lastly, future studies should evaluate how AI might improve communication and cooperation, with a particular emphasis on how AI tools may enhance interactive learning environments and promote peer-to-peer learning. By filling in the gaps and expanding on recent research, these suggestions seek to improve artificial intelligence (AI) technologies and make them more useful, ethical, and approachable for English language learners.

6.2.4. Implication

The results point to crucial factors that should be taken into account when integrating AI tools into English language instruction by educators, legislators, and technology developers. AI should be included in curricula by educators to improve collaborative learning and to create training programs that would make students more comfortable using these tools. To enhance self-directed learning, AI-supported activities that foster critical thinking should be devised. To guarantee that students have safe and reasonably priced access to AI tools, policymakers must make investments in digital infrastructure and offer technical assistance. To address privacy and security concerns and foster trust in new technologies, it is imperative to establish unambiguous criteria for their ethical use.

The goal of technology developers should be to create low-bandwidth, user-friendly AI technologies that are suitable for a variety of educational settings. Giving data security and openness a high priority when it comes to how AI systems manage user information will

6.3. Summary

According to Chapter VI, students see AI generative tools as beneficial for learning English because they can create content and improve their technological skills. But issues with internet connectivity, technological difficulties, and security continue to exist. According to the chapter, AI should be viewed as an adjunct to conventional techniques rather than as a replacement for them. Recommendations include tackling privacy and security issues, boosting autonomy and critical thinking through AI, and improving accessibility. The ramifications emphasize how important it is for developers, legislators, and educators to work together to successfully integrate AI, with an emphasis on infrastructure, moral principles, and approachable technological solutions.

REFERENCES

- Ali, S., Ravi, P., Williams, R., DiPaola, D., & Breazeal, C. (2024). Constructing dreams using generative AI. *Proceedings of the AAAI Conference on Artificial Intelligence*, 38(21), 23268–23275. <https://ojs.aaai.org/index.php/AAAI/article/view/30374>
- Al-Tkhayneh, K. M., Alghazo, E. M., & Tahat, D. (2023). The advantages and disadvantages of using artificial intelligence in education. <https://digitallibrary.aau.ac.ae/handle/123456789/1168>
- Artificial Intelligence (AI): Definition, examples, types, applications, companies, & facts. (2024, June 11). *Britannica*. <https://www.britannica.com/technology/artificial-intelligence>
- Ayling, J., & Chapman, A. (2022). Putting AI ethics to work: Are the tools fit for purpose? *AI and Ethics*, 2(3), 405–429. <https://doi.org/10.1007/s43681-021-00084-x>
- Baidoo-Anu, D., & Ansah, L. O. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. *Journal of AI*, 7(1), 52–62.
- Baksa, T., Konecki, M., & Konecki, M. (2024). High school students' perception of AI and its future impact on education. In *2024 12th International Conference on Information and Education Technology (ICIET)* (pp. 215–219). IEEE. <https://ieeexplore.ieee.org/abstract/document/10542754/>
- Bassioni, H. A., Hassan, T. M., & Price, A. D. F. (2008). Evaluation and analysis of criteria and sub-criteria of a construction excellence model. *Engineering, Construction and Architectural Management*, 15(1), 21–41. <https://doi.org/10.1108/09699980810842043>

- Beck, J., Stern, M., & Haugsjaa, E. (1996). Applications of AI in education. *XRDS: Crossroads, The ACM Magazine for Students*, 3(1), 11–15.
<https://doi.org/10.1145/332148.332153>
- Brey, P., & Dainow, B. (2023). Ethics by design for artificial intelligence. *AI and Ethics*.
<https://doi.org/10.1007/s43681-023-00330-4>
- Brynjolfsson, E., Li, D., & Raymond, L. R. (2023). Generative AI at work (Working Paper 31161). National Bureau of Economic Research. <https://doi.org/10.3386/w31161>
- Chaikovska, O., Stoliarenko, O., Hlushkovetska, N., & Semenyshena, I. (2024). Enhancing students' listening comprehension skills through AI-based podcast activities: A study in self-study mode. *Environment. Technologies. Resources. Proceedings of the International Scientific and Practical Conference*, 2, 336–339.
<https://doi.org/10.17770/etr2024vol2.8085>
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(1), 43. <https://doi.org/10.1186/s41239-023-00411-8>
- Cress, U., & Kimmerle, J. (2023). Co-constructing knowledge with generative AI tools: Reflections from a CSCL perspective. *International Journal of Computer-Supported Collaborative Learning*, 18(4), 607–614. <https://doi.org/10.1007/s11412-023-09409-w>
- Dafoe, A., Hughes, E., Bachrach, Y., Collins, T., McKee, K. R., Leibo, J. Z., Larson, K., & Graepel, T. (2020). Open problems in cooperative AI (arXiv:2012.08630). arXiv.
<http://arxiv.org/abs/2012.08630>
- Dara, R., Hazrati Fard, S. M., & Kaur, J. (2022). Recommendations for ethical and responsible use of artificial intelligence in digital agriculture. *Frontiers in Artificial Intelligence*, 5. <https://doi.org/10.3389/frai.2022.884192>

- Dash, B. B. (2022). Digital tools for teaching and learning English language in the 21st century. *International Journal of English and Studies*, 4(2), 8–13.
- Delcker, J., Heil, J., Ifenthaler, D., Seufert, S., & Spirgi, L. (2024). First-year students' AI competence as a predictor for intended and de facto use of AI tools for supporting learning processes in higher education. *International Journal of Educational Technology in Higher Education*, 21. <https://doi.org/10.1186/s41239-024-00452-7>
- Devineni, S. K. (2024). AI in data privacy and security. *International Journal of Artificial Intelligence & Machine Learning (IJAIML)*, 3(01), Article 01.
- Dincer, A. (2020). Understanding the characteristics of English language learners' out-of-class language learning through digital practices. *IAFOR Journal of Education*, 8(2). <https://avesis.omu.edu.tr/yayin/4927b0ad-7ff6-4adb-b5fb-7c0ab7a46919/understanding-the-characteristics-of-english-language-learners-out-of-class-language-learning-through-digital-practices>
- Epstein, Z., Hertzmann, A., & the Investigators of Human Creativity. (2023). Art and the science of generative AI. *Science*, 380(6650), 1110–1111. <https://doi.org/10.1126/science.adh4451>
- Fitria, T. N. (2023). The use of artificial intelligence in education (AIED): Can AI replace the teacher's role? *Epigram (e-Journal)*, 20(2), 165–187.
- Freeman, Y., & Freeman, D. (2007). Four keys for school success for elementary English learners. In J. Cummins & C. Davison (Eds.), *International Handbook of English Language Teaching* (pp. 349–364). Springer US. https://doi.org/10.1007/978-0-387-46301-8_25
- Gökçearslan, S., Tosun, C., & Erdemir, Z. G. (2024). Benefits, challenges, and methods of artificial intelligence (AI) chatbots in education: A systematic literature review. *International Journal of Technology in Education*, 7(1), 19–39.

- Hagendorff, T. (2024). Mapping the ethics of generative AI: A comprehensive scoping review (arXiv:2402.08323). arXiv. <http://arxiv.org/abs/2402.08323>
- Helm, J. M., Swiergosz, A. M., Haeberle, H. S., Karnuta, J. M., Schaffer, J. L., Krebs, V. E., Spitzer, A. I., & Ramkumar, P. N. (2020). Machine learning and artificial intelligence: Definitions, applications, and future directions. *Current Reviews in Musculoskeletal Medicine*, 13(1), 69–76. <https://doi.org/10.1007/s12178-020-09600-8>
- Heng, K., Kao, D., Muong, M., Doeur, B., & Lor, T. (2021). Online learning during COVID-19 and key issues in education.
- Holmes, W., & Tuomi, I. (2022). State of the art and practice in AI in education. *European Journal of Education*, 57(4), 542–570. <https://doi.org/10.1111/ejed.12533>
- Jagatheesaperumal, S. K., Rahouti, M., Ahmad, K., Al-Fuqaha, A., & Guizani, M. (2022). The duo of artificial intelligence and big data for Industry 4.0: Applications, techniques, challenges, and future research directions. *IEEE Internet of Things Journal*, 9(15), 12861–12885. <https://doi.org/10.1109/JIOT.2021.3139827>
- Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, 1(9), 389–399. <https://doi.org/10.1038/s42256-019-0088-2>
- Junior, P., Abib, G., & Hoppen, N. (2019). The qualitative report validity in qualitative research: A processual approach. *Qualitative Report*, 24.
- Kamrowska-Zaluska, D. (2021). Impact of AI-based tools and urban big data analytics on the design and planning of cities. *Land*, 10(11), Article 11. <https://doi.org/10.3390/land10111209>
- Lin, Z. (2024). Five ethical principles for generative AI in scientific research (arXiv:2401.15284). arXiv. <http://arxiv.org/abs/2401.15284>

- López, O. S. (2010). The digital learning classroom: Improving English language learners' academic success in mathematics and reading using interactive whiteboard technology. *Computers & Education*, 54(4), 901–915.
<https://doi.org/10.1016/j.compedu.2009.10.011>
- Madhavi, E., Sivapurapu, L., Koppula, V., Rani, P. B. E., & Sreehari, V. (2023). Developing learners' English-speaking skills using ICT and AI tools. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, 32(2), Article 2.
<https://doi.org/10.37934/araset.32.2.142153>
- Malakar, P., & Leeladharan, M. (2024). Generative AI tools for collaborative content creation: A comparative analysis. 44(3).
- Malik, M., & Noul, D. (2024). Generative AI in learning: Navigating challenges for future educational practices. <https://doi.org/10.13140/RG.2.2.14052.59523>
- Maphoto, K. B., Sevnarayan, K., Mohale, N. E., Suliman, Z., Ntsopi, T. J., & Mokoena, D. (2024). Advancing students' academic excellence in distance education: Exploring the potential of generative AI integration to improve academic writing skills. *Open Praxis*, 16(2), 142–159. <https://doi.org/10.5944/openpraxis.16.2.1466>
- Markon, K. E., Chmielewski, M., & Miller, C. J. (2011). The reliability and validity of discrete and continuous measures of psychopathology: A quantitative review. *Psychological Bulletin*, 137(5), 856–879. <https://doi.org/10.1037/a0023678>
- Marquis, Y., Oladoyinbo, T. O., Olabanji, S. O., Olaniyi, O. O., & Ajayi, S. A. (2024). Proliferation of AI tools: A multifaceted evaluation of user perceptions and emerging trends (SSRN Scholarly Paper No. 4689091).
<https://papers.ssrn.com/abstract=4689091>

- Mason, S. R. (2024). Perceptions of ACSI secondary school administrators and teachers concerning the use of generative AI chatbots to support struggling writers. *ProQuest LLC*.
- Morley, J., Elhalal, A., Garcia, F., Kinsey, L., Mökander, J., & Floridi, L. (2021). Ethics as a service: A pragmatic operationalization of AI ethics. *Minds and Machines*, 31(2), 239–256. <https://doi.org/10.1007/s11023-021-09563-w>
- Namjoo, F., Liaghat, E., Shabaziasl, S., Modabernejad, Z., & Morshedi, H. (2023). Students' experience on self-study through AI. *AI and Tech in Behavioral and Social Sciences*, 1(3), 35–42. <https://doi.org/10.61838/kman.aitech.1.3.6>
- Neumann, A. T., Arndt, T., Köbis, L., Meissner, R., Martin, A., de Lange, P., Pengel, N., Klamma, R., & Wollersheim, H.-W. (2021). Chatbots as a tool to scale mentoring processes: Individually supporting self-study in higher education. *Frontiers in Artificial Intelligence*, 4. <https://doi.org/10.3389/frai.2021.668220>
- Ngo, T. T. A. (2023). The perception by university students of the use of ChatGPT in education. *International Journal of Emerging Technologies in Learning (Online)*, 18(17), 4. <https://doi.org/10.3991/ijet.v18i17.37476>
- Nguyen, V.-L., Lin, P.-C., Cheng, B.-C., Hwang, R.-H., & Lin, Y.-D. (2021). Security and privacy for 6G: A survey on prospective technologies and challenges. *IEEE Communications Surveys & Tutorials*, 23(4), 2384–2428. <https://doi.org/10.1109/COMST.2021.3108618>
- Nur Fitria, T. (2021). The use of technology based on artificial intelligence in English teaching and learning. *ELT Echo*, 6(2), 213–223. <https://doi.org/10.24235/eltecho.v6i2.9299>

- OpenStax & Learning, L. (n.d.). What is perception? Retrieved June 28, 2024, from <https://pressbooks.online.ucf.edu/lumenpsychology/chapter/reading-what-is-perception/>
- Oranga, J. (2023). Benefits of artificial intelligence (ChatGPT) in education and learning: Is ChatGPT helpful? *International Review of Practical Innovation, Technology and Green Energy (IRPITAGE)*, 3(3), 46–50.
- Owoc, M. L., Sawicka, A., & Weichbroth, P. (2021). Artificial intelligence technologies in education: Benefits, challenges, and strategies of implementation. In M. L. Owoc & M. Pondel (Eds.), *Artificial Intelligence for Knowledge Management* (Vol. 599, pp. 37–58). Springer International Publishing. https://doi.org/10.1007/978-3-030-85001-2_4
- Phuong, H. P. X. (2024). Using ChatGPT in English language learning: A study on IT students' attitudes, habits, and perceptions. In *Online Submission* (Vol. 4, Issue 1, pp. 55–68). <https://eric.ed.gov/?id=ED652493>
- Putra, M. (2023). AI writing correction tools: Teachers' and students' perception. *Jurnal Tatsqif*, 21(1), 35–66.
- Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, 3, S33–S35. <https://doi.org/10.21839/jaar.2018.v3iS1.165>
- Rebolledo Font de la Vall, R., & Gonzalez Araya, F. (2023). Exploring the benefits and challenges of AI-language learning tools. *International Journal of Social Sciences and Humanities Invention*, 10, 7569–7576. <https://doi.org/10.18535/ijsshi/v10i01.02>
- Register-Brown, K., & Hong, L. E. (2014). Reliability and validity of methods for measuring the duration of untreated psychosis: A quantitative review and meta-analysis. *Schizophrenia Research*, 160(1), 20–26. <https://doi.org/10.1016/j.schres.2014.10.025>

- Resnick, M. (2024). Generative AI and creative learning: Concerns, opportunities, and choices. An MIT exploration of generative AI.
<https://doi.org/10.21428/e4baedd9.cf3e35e5>
- Rourke, L., & Anderson, T. (2004). Validity in quantitative content analysis. *Educational Technology Research and Development*, 52(1), 5–18.
<https://doi.org/10.1007/BF02504769>
- Sánchez, B. N., & Duque, F. P. (2024). University students' perception of AI use. *INTED2024 Proceedings*, 6044–6051.
<https://library.iated.org/view/NARANJOSANCHEZ2024UNI>
- Sarin, S., & Kimkong, H. (2024). Generative AI in higher education: The need to develop or revise academic integrity policies to ensure the ethical use of AI in Cambodia. *International Journal of Education and Research*, 6(01).
- Schwesig, R., Brich, I., Buder, J., Huff, M., & Said, N. (2023). Using artificial intelligence (AI)? Risk and opportunity perception of AI predict people's willingness to use AI. *Journal of Risk Research*, 26(10), 1053–1084.
<https://doi.org/10.1080/13669877.2023.2249927>
- Sert, N., & Boynuegri, E. (2017). Digital technology use by the students and English teachers and self-directed language learning. *World Journal on Educational Technology: Current Issues*, 9(1), 24–34.
- Siswaningsih, W., Firman, H., Zackiyah, & Khoirunnisa, A. (2017). Development of two-tier diagnostic test pictorial-based for identifying high school students' misconceptions on the mole concept. *Journal of Physics: Conference Series*, 812, 1–17.
<https://doi.org/10.1088/1742-6596/812/1/012117>

- Sol, K., Heng, K., & Sok, S. (2024). Using AI in English language education: An exploration of Cambodian EFL university students' experiences, perceptions, and attitudes (SSRN Scholarly Paper 4687461). <https://doi.org/10.2139/ssrn.4687461>
- Stringer, K. W., & Cody Corral, A. (2024, June 27). ChatGPT: Everything you need to know about the AI chatbot. *TechCrunch*. <https://techcrunch.com/2024/06/27/chatgpt-everything-to-know-about-the-ai-chatbot/>
- Sumakul, D. T. Y., Hamied, F. A., & Sukyadi, D. (2022). Students' perceptions of the use of AI in a writing class. In *67th TEFLIN International Virtual Conference & the 9th ICOELT 2021 (TEFLIN ICOELT 2021)* (pp. 52–57). Atlantis Press. <https://www.atlantis-press.com/proceedings/teflin-icoelt-21/125970061>
- The 20 best generative AI tools in 2024. (n.d.). *Zapier*. Retrieved June 28, 2024, from <https://zapier.com/blog/generative-ai-tools/>
- Thippanna, G., Jyothi, P., Krishnaiah, P., Thippanna, G., Jyothi, P., & Krishnaiah, P. (2023). An extensive review of the benefits and drawbacks of AI tools. *World Journal of Advanced Research and Reviews*, 20(3), Article 3. <https://doi.org/10.30574/wjarr.2023.20.3.2636>
- University, S. C. (n.d.). What is ethics? Retrieved July 18, 2024, from <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/what-is-ethics/>
- Von Eschenbach, W. J. (2021). Transparency and the black box problem: Why we do not trust AI. *Philosophy & Technology*, 34(4), 1607–1622. <https://doi.org/10.1007/s13347-021-00477-0>
- What is an AI tool? | Synthesia glossary. (n.d.). Retrieved July 18, 2024, from <https://www.synthesia.io/glossary/ai-tool>
- Young, M. M., Bullock, J. B., & Lecy, J. D. (2019). Artificial discretion as a tool of governance: A framework for understanding the impact of artificial intelligence on

public administration. *Perspectives on Public Management and Governance*, 2(4), 301–313. <https://doi.org/10.1093/ppmgov/gvz014>

Yuan, C., Wang, L., & Eagle, J. (2019). Empowering English language learners through digital literacies: Research, complexities, and implications. *Media and Communication*, 7(3), 1–13. <https://doi.org/10.17645/mac.v7i3.1912>

Zaghlool, Z. D., & Khasawneh, M. A. S. (2023). Incorporating the impacts and limitations of AI-driven feedback, evaluation, and real-time conversation tools in foreign language learning. *Migration Letters*, 20(7), 1071–1083. <https://doi.org/10.33182/ml.v20i7.2277>

APPENDIX

កម្រងសំណួរស្រាវជ្រាវថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់

នាងខ្ញុំឈ្មោះ **អុន ស្រីឡេត** ជាបេក្ខនារីថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ជំនាញសិល្បៈក្នុងការបង្រៀនភាសាអង់គ្លេសទៅអ្នកប្រើប្រាស់ភាសាផ្សេងៗ (Master of Arts in Teaching English to Speakers of Other Languages) នៃសាកលវិទ្យាល័យជាតិ ជាស៊ីមកំបាយមារ សាខាខេត្តកំពង់ចាម ប្រទេសកម្ពុជា ។ នាងខ្ញុំកំពុងធ្វើការសិក្សាស្រាវជ្រាវតាមរយៈការសរសេរនិក្ខេបបទដើម្បីបញ្ចប់ការសិក្សា ។ នាងខ្ញុំសូមគោរព ចំពោះនិសិទ្ធិទាំងអស់ ក្នុងការចូលរួមបំពេញកម្រងសំណួរនេះតាមការគួរ ។ នាងខ្ញុំគោរពជម្រាបជូននិសិទ្ធិទាំងអស់ថា ការចូលរួមបំពេញកម្រងសំណួរនេះ ជាការស្មគ្រចិត្ត ។

ការសិក្សាស្រាវជ្រាវនេះ គឺជាការសិក្សាស្រាវជ្រាវអំពីការយល់ដឹងរបស់សិស្សទៅលើការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស ។ គោលបំណងទី១នៃការសិក្សាស្រាវជ្រាវនេះគឺដើម្បីស្វែងរកនូវឱកាសដែលនិសិទ្ធិទទួលបានពីការប្រើប្រាស់ឧបករណ៍ AI នេះក្នុងការរៀនថ្នាក់ភាសាអង់គ្លេស។ ចំពោះគោលបំណងទី២គឺដើម្បីស្វែងរកពីផលលំបាកដែលនិសិទ្ធិបានជួបនិងព្រួយបារម្ភកំឡុងពេលប្រើប្រាស់ឧបករណ៍បច្ចេកវិទ្យា AI។ ហើយចំពោះគោលបំណងចុងក្រោយគឺដើម្បីស្វែងរកពីក្រមសីលធម៌នៃការប្រើប្រាស់ឧបករណ៍ AI សម្រាប់ការប្រើប្រាស់នាពេលអនាគត។ កម្រងសំណួរនេះផងដែរមានបួនផ្នែកគឺ I, II, III និង IV ។ ក្នុងការបំពេញកម្រងសំណួរនេះ និសិទ្ធិទាំងអស់ចំណាយពេលត្រឹមតែ ២០ ទៅ ៣០ នាទីប៉ុណ្ណោះ ។ អ្នកស្រាវជ្រាវសូមធានាអះអាងថាចម្លើយតបរបស់និសិទ្ធិទាំងអស់ គឺនឹងត្រូវបានរក្សាការសំងាត់ខ្ពស់បំផុត ។

I. ព័ត៌មានទូទៅ

1. សូមជ្រើសរើសភេទរបស់អ្នក

a. ☐ ប្រុស

b. ☐ ស្រី

2. សូមជ្រើសរើសចន្លោះអាយុរបស់អ្នក

a. ☐ 16-25

b. ☐ 26-30

c. ☐ 31 ឬលើស

3. សូមជ្រើសរើសសញ្ញាប្រឌូសបំផុតរបស់អ្នក

a. ☐ ឆ្នាំទី២

c. ☐ ឆ្នាំទី៣

e. ☐ ឆ្នាំទី៤

II. ការយល់ដឹងរបស់សិស្សទៅលើការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស

កម្រងសំណួរផ្នែកនេះរៀបចំឡើងដើម្បីឱ្យអ្នកពណ៌នាអំពីការយល់ដឹងរបស់សិស្សទៅលើការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស។

ការណែនាំ៖ សូមឆ្លើយសំណួរខាងក្រោមដោយគូសវង្វងលើលេខ (ពី១ទៅ៥) ដែលឆ្លុះបញ្ចាំងអំពីការយល់ឃើញរបស់អ្នក ដោយប្រើរង្វាយតម្លៃខាងក្រោម៖

1 = មិនយល់ស្របទាំងស្រុង 2 = មិនយល់ស្រប 3 = មិនប្រាកដ 4 = យល់ស្រប 5 = យល់ស្របទាំងស្រុង

ការពិពណ៌នា		មិនយល់ស្រប	មិនយល់ស្រប	មិនប្រាកដ	យល់ស្រប	យល់ស្រប
No.	ឱកាសរបស់សិស្សក្នុងការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស					
1	ខ្ញុំបានក្លាយទៅជាអ្នករៀនដែលឯករាជ។	1	2	3	4	5
2	ខ្ញុំអាចពង្រឹងជំនាញធំៗក្នុងការរៀនភាសាអង់គ្លេស (អាន ស្តាប់ សរសេរ និយាយ)។	1	2	3	4	5
3	ខ្ញុំបំពេញកិច្ចការបទប្បញ្ញត្តិ និងឆាប់រហ័ស។	1	2	3	4	5
4	ការគិតរបស់ខ្ញុំមានភាពទូលំទូលាយក្នុងការរៀនភាសាអង់គ្លេស។	1	2	3	4	5
5	ខ្ញុំចេះសហការការរៀនជាមួយឧបករណ៍ AI។	1	2	3	4	5

6	ខ្ញុំអាចអភិវឌ្ឍជំនាញក្នុងការប្រើប្រាស់បច្ចេកវិទ្យាថ្មីៗ។	1	2	3	4	5
7	ខ្ញុំទទួលបានបទពិសោធច្រើនក្នុងការរៀនភាសាអង់គ្លេស។	1	2	3	4	5
8	ខ្ញុំអាចប្រើប្រាស់ឧបករណ៍ AI ឱ្យជួយការរៀនបានគ្រប់ពេលវេលា។	1	2	3	4	5
9	ខ្ញុំអាចប្រើឧបករណ៍ AI ក្នុងការបង្កើតស្នាម និងមាតិកាផ្សេងៗទៀត។	1	2	3	4	5
10	ខ្ញុំអាចដើរទាន់សម័យកាលចបេកវិទ្យាទំនើប។	1	2	3	4	5
ផលលំបាកនៃការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស						
1	ខ្ញុំខ្វះជំនាញក្នុងការប្រើប្រាស់បច្ចេកវិទ្យាដើម្បីដំណើរការឧបករណ៍ AI ។	1	2	3	4	5
2	ខ្ញុំបារម្ភថាព័ត៌មានផ្ទាល់ខ្លួនរបស់ខ្ញុំនឹងត្រូវបានលួចទៅប្រើប្រាស់នៅពេលភ្ជាប់ជាមួយឧបករណ៍ AI។	1	2	3	4	5
3	ការចំណាយតម្លៃខ្ពស់ដើម្បីប្រើប្រាស់ឧបករណ៍ AI។	1	2	3	4	5
4	ឧបករណ៍ AI ផ្តល់ឱ្យនូវព័ត៌មានខុសពេលបំពេញកិច្ចការ។	1	2	3	4	5
5	ឧបករណ៍ AI មានកំណត់រយៈពេលនៃការប្រើប្រាស់ (ពេលវេលា ទំហំ ធនធាន...)។	1	2	3	4	5
6	ឧបករណ៍ AI អាចកាត់បន្ថយសមត្ថភាពគិត និងការអនុវត្តដោយខ្លួនឯងរបស់ខ្ញុំ។	1	2	3	4	5
7	ខ្ញុំកាត់ផ្តាច់ទំនាក់ទំនង និងការចូលរួមជាមួយមនុស្សជុំវិញខ្លួនក្នុងការរៀន។	1	2	3	4	5
8	ខ្ញុំមិនដឹងពីរបៀបភ្ជាប់ឧបករណ៍ AI។	1	2	3	4	5
9	ខ្ញុំមិនមានទំនុកចិត្តក្នុងការប្រើប្រាស់ឧបករណ៍ AI។	1	2	3	4	5

10	ខ្ញុំចំណាយអ្វីនឹងជំនាញច្រើនសម្រាប់ប្រើប្រាស់ឧបករណ៍ AI។	1	2	3	4	5
ក្រមសីលធម៌នៃការប្រើប្រាស់ឧបករណ៍ AI នាពេលអនាគត						
1	AI គួរតែរក្សាឯកជនភាព និងសុវត្ថិភាពនៃព័ត៌មានរបស់អ្នកប្រើប្រាស់ឱ្យបានល្អ។	1	2	3	4	5
2	ឧបករណ៍ AI គួរតែផ្តល់ឱ្យអ្នកប្រើប្រាស់ជាមួយតម្លៃទាប។	1	2	3	4	5
3	ឧបករណ៍ AI គួរតែបង្កើតគោលការណ៍ច្បាស់លាស់សម្រាប់ប្រើប្រាស់។	1	2	3	4	5
4	ឧបករណ៍ AI គួរតែបង្ហាញព័ត៌មានច្បាស់លាស់ដែលបង្កើនឱ្យអ្នកប្រើប្រាស់មានភាពជឿជាក់។	1	2	3	4	5
5	ឧបករណ៍ AI គួរតែបើកវគ្គបង្រៀនប្រើប្រាស់សម្រាប់មនុស្សឱ្យបានទូលំទូលាយ។	1	2	3	4	5
6	ឧបករណ៍ AI គួរតែប្រើប្រាស់ជំហានស្រួលៗសម្រាប់ភ្ជាប់។	1	2	3	4	5
7	ឧបករណ៍ AI គួរតែអនុញ្ញាតឱ្យប្រើក្នុងទំហំធំ។	1	2	3	4	5
8	ឧបករណ៍ AI គួរតែផ្តល់ព័ត៌មានពិតដល់អ្នកប្រើប្រាស់។	1	2	3	4	5
9	ឧបករណ៍ AI គួរតែអាចចូលប្រើប្រាស់យ៉ាងសេរី។	1	2	3	4	5
10	ឧបករណ៍ AI គួរតែផ្តល់ព័ត៌មានទៅអ្នកប្រើប្រាស់ពេលប្រព័ន្ធមានបញ្ហា។	1	2	3	4	5

សូមអរគុណសម្រាប់ការចូលរួម!

A Master Degree's Questionnaire for Data Collection

My name is Ms. On Sreylet, and I am an MA in TESOL candidate at the National University of Cheasim Kamchaymear in Kampong Cham Province. I am conducting research and writing a dissertation to graduate. I respectfully request that all students, complete this questionnaire as appropriate. I respectfully tell you that participating in this questionnaire is voluntary.

This is a study on students' perception of the impact of AI generative tools in learning the English language. The first purpose of this study is to find out students' opportunities to use AI tools. The second aim is to investigate the challenges of using AI tools in learning the English language. The last objective is to explore the ethics of using AI tools in the future. The questionnaire contains four parts: I, II, III, and IV, and it will take only about 30 minutes of your time to take part in the survey. Also, please be assured that your responses are the strictest confidence and anonymity.

I. Demographic information

Please choose your gender.

- a. ☐ Male b. ☐ Female

2. Please choose your age range

- a. ☐ 16-25 b. ☐ 26-30 c. ☐ 31-Over

3. Please choose your study level

- a. ☐ Year 2

- b. ☐ Year 3

- c. ☐ Year 4

II. Students' perception of the impact of AI generative tools in learning the English language

This part of the questionnaire is aimed to describe the students' perception of the impact of AI generative tools in learning the English language.

Directions: Please answer items below by circling a number from 1 to 5 that best reflects your perception using the following rating scale:

1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

Description		Strongly disagree	disagree	Neutral	Agree	Strongly Agree
No.	Opportunities of using AI tools for learning the English language: Self-studying					
1	I become an independent learner.	1	2	3	4	5
2	I can improve macro skills in English (reading, listening, writing, speaking).	1	2	3	4	5
3	I complete tasks easily and quickly.	1	2	3	4	5
4	My mind is opened to new ways of learning.	1	2	3	4	5
5	I can cooperatively learn with AI tools.	1	2	3	4	5
6	I can develop skills in using new technology.	1	2	3	4	5
7	I get more experience in learning English.	1	2	3	4	5
8	I can use AI tools for 24/7 support.	1	2	3	4	5

9	I can use AI tools to create slides and other content designs.	1	2	3	4	5
10	I can run up to the new generation of technology.	1	2	3	4	5
Challenges of using AI generative tools in learning the English language.						
1	I lack the of use technology to access AI generative tools.	1	2	3	4	5
2	I am concerned about my account being hacked when connecting to AI tools	1	2	3	4	5
3	Paying the most cost to process AI tools.	1	2	3	4	5
4	AI provides bias and error of information when generating the tasks.	1	2	3	4	5
5	AI tools have limitations of using AI generative tools (time, space, source...).	1	2	3	4	5
6	AI can reduce the critical thinking and self-practices of humans.	1	2	3	4	5
7	I cut off interaction and engagement with the environment of learning.	1	2	3	4	5
8	I don't know how to connect with AI Tools.	1	2	3	4	5
9	I feel untrusted about using AI generative tools.	1	2	3	4	5

10	I spend a lot of internet to access it.	1	2	3	4	5
Ethical of using AI generative tools in learning the English language.						
1	AI tools should keep the privacy and security of the personal account information of users.	1	2	3	4	5
2	AI tools should offer users with low price to generate information.	1	2	3	4	5
3	AI tools should set clear policies for using AI generative tools.	1	2	3	4	5
4	AI tools should show up with clear information about the trust in using AI.	1	2	3	4	5
5	AI tools should have open-course training for people widely.	1	2	3	4	5
6	AI tools should use easy steps to connect.	1	2	3	4	5
7	AI tools should allow big space for use.	1	2	3	4	5
8	AI tools give true information to users.	1	2	3	4	5
9	AI tools should sign up for free.	1	2	3	4	5
10	AI tools should assign people with problems.	1	2	3	4	5

Thanks!

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សូមគោរពជូន
សាស្ត្រាចារ្យជំនួយមេត្តមណ្ឌិត ម៉ែន ឌីណា

កម្មវត្ថុ ៖ សំណើសុំជាអ្នកជំនាញដើម្បីពិនិត្យ កែសម្រួល និងផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរ សិក្សាស្រាវជ្រាវនិក្ខេបបទថ្នាក់អនុបណ្ឌិត ។

យោងតាមកម្មវត្ថុខាងលើ ខ្ញុំមានកិត្តិយសសូមជម្រាបលោកសាស្ត្រាចារ្យជំនាញថា និស្សិតឈ្មោះ អុន ស្រីឡេង ជាបេក្ខជនអនុបណ្ឌិតជំនាញបង្រៀនភាសាអង់គ្លេស (MA in TESOL) នៅសាកលវិទ្យាល័យជាតិ ជាស៊ីម កំបាយមារ សាលាខេត្តកំពង់ចាម បាននឹងកំពុងធ្វើការសិក្សាស្រាវជ្រាវលើប្រធានបទ **“ការយល់ដឹងរបស់សិស្សទៅលើការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស”** ។

ការសិក្សាស្រាវជ្រាវនេះ និស្សិតបានរៀបចំជាកម្រងសំណួរក្នុងគោលបំណងដើម្បីប្រមូលទិន្នន័យពាក់ព័ន្ធជាមួយសំណាកគោលដៅដែលជានិស្សិតនៅសាកលវិទ្យាល័យជាតិស៊ីមកំបាយមារខេត្តកំពង់ចាម ។ ប្រការនេះ ដើម្បីធានាបាននូវសង្គតិភាព ភាពប្រទាក់ក្រឡា និងភាពគ្រប់ជ្រុងជ្រោយនៃឧបករណ៍ស្រាវជ្រាវនេះ ខ្ញុំសូមគោរពស្នើសុំលោកសាស្ត្រាចារ្យជាអ្នកជំនាញក្នុងការផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរនេះ ។

អាស្រ័យដូចបានជម្រាបជូនខាងលើសូមលោកសាស្ត្រាចារ្យទទួលពិនិត្យ កែសម្រួល និងផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរសិក្សាស្រាវជ្រាវនេះដោយក្តីអនុគ្រោះ ។

សូមលោកសាស្ត្រាចារ្យមេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីខ្ញុំ ។

ថ្ងៃចន្ទ ៨កើត ខែស្រាពណ៍ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
រាជធានីភ្នំពេញ ថ្ងៃទី១២ ខែសីហា ឆ្នាំ២០២៤

ហត្ថលេខា



បណ្ឌិត **អ៊ឹម សិរីថ្លា**
(សាស្ត្រាចារ្យដឹកនាំនិក្ខេបបទ)

ជូនភ្ជាប់៖ កម្រងសំណួរស្រាវជ្រាវ
លេខទំនាក់ទំនង៖ ០៩២៥៧១៩០២

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សូមគោរពជូន
មេត្តាបណ្ឌិត ខាន់ សំគាស់

កម្មវត្ថុ ៖ សំណើសុំជាអ្នកជំនាញ ដើម្បីពិនិត្យ កែសម្រួល និងផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរ សិក្សាស្រាវជ្រាវនិក្ខេបបទថ្នាក់អនុបណ្ឌិត ។

យោងតាមកម្មវត្ថុខាងលើ ខ្ញុំមានកិត្តិយសសូមជម្រាបលោកសាស្ត្រាចារ្យជំនាញថា និស្សិតឈ្មោះ អ៊ុន ស្រីឡេក ជាបេក្ខជនអនុបណ្ឌិតជំនាញបង្រៀនភាសាអង់គ្លេស (MA in TESOL) នៅសាកលវិទ្យាល័យជាតិ ជាស៊ីម កំបាយមារ សាលាខេត្តកំពង់ចាម បាននឹងកំពុងធ្វើការសិក្សាស្រាវជ្រាវលើប្រធានបទ **“ការយល់ដឹងរបស់សិស្សទៅលើការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស+ករណីសិក្សារបស់និស្សិតថ្នាក់បរិញ្ញាបត្រនៃសាកលវិទ្យាល័យជាតិជាស៊ីម កំបាយមារ”** ។

ការសិក្សាស្រាវជ្រាវនេះ និស្សិតបានរៀបចំជាកម្រងសំណួរក្នុងគោលបំណងដើម្បីប្រមូលទិន្នន័យពាក់ព័ន្ធជាមួយសំណាកគោលដៅដែលជានិស្សិតនៅសាកលវិទ្យាល័យជាតិជាស៊ីមកំបាយមារខេត្តកំពង់ចាម ។ ប្រការនេះ ដើម្បីធានាបាននូវសង្គតិភាព ភាពប្រទាក់ក្រឡា និងភាពគ្រប់ជ្រុងជ្រោយនៃឧបករណ៍ស្រាវជ្រាវនេះ ខ្ញុំសូមគោរពស្នើសុំលោកសាស្ត្រាចារ្យជាអ្នកជំនាញក្នុងការផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរនេះ ។

អាស្រ័យដូចបានជម្រាបជូនខាងលើសូមលោកសាស្ត្រាចារ្យទទួលពិនិត្យ កែសម្រួល និងផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរសិក្សាស្រាវជ្រាវនេះដោយក្តីអនុគ្រោះ ។

សូមលោកសាស្ត្រាចារ្យមេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីខ្ញុំ ។

ថ្ងៃចន្ទ ៨កើត ខែស្រាពណ៍ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
រាជធានីភ្នំពេញ ថ្ងៃទី១២ ខែសីហា ឆ្នាំ២០២៤

ហត្ថលេខា



បណ្ឌិត អ៊ឹម សិរីថ្លា
(សាស្ត្រាចារ្យជំនាញនិក្ខេបបទ)

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សូមគោរពជូន
លោកគ្រូឧត្តម នង់ ទែល

កម្មវត្ថុ ៖ សំណើសុំជាអ្នកជំនាញ ដើម្បីពិនិត្យ កែសម្រួល និងផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរ សិក្សាស្រាវជ្រាវនិក្ខេបបទថ្នាក់អនុបណ្ឌិត ។

យោងតាមកម្មវត្ថុខាងលើ ខ្ញុំមានកិត្តិយសសូមជម្រាបលោកសាស្ត្រាចារ្យជំនាញថា និស្សិតឈ្មោះ អុន ស្រីឡេក ជាបេក្ខជនអនុបណ្ឌិតជំនាញបង្រៀនភាសាអង់គ្លេស (MA in TESOL) នៅសាកលវិទ្យាល័យជាតិ ជាស៊ីម កំបាយមារ សាលាខេត្តកំពង់ចាម បាននឹងកំពុងធ្វើការសិក្សាស្រាវជ្រាវលើប្រធានបទ **"ការយល់ដឹងរបស់សិស្សទៅលើការប្រើប្រាស់ឧបករណ៍ AI ក្នុងការរៀនភាសាអង់គ្លេស៖ករណីសិក្សារបស់និស្សិតថ្នាក់បរិញ្ញាបត្រនៃសាកលវិទ្យាល័យជាតិជាស៊ីម កំបាយមារ"** ។

ការសិក្សាស្រាវជ្រាវនេះ និស្សិតបានរៀបចំជាកម្រងសំណួរក្នុងគោលបំណងដើម្បីប្រមូលទិន្នន័យពាក់ព័ន្ធជាមួយសំណាកគោលដៅដែលជានិស្សិតនៅសាកលវិទ្យាល័យជាតិស៊ីមកំបាយមារខេត្តកំពង់ចាម ។ ប្រការនេះ ដើម្បីធានាបាននូវសង្គតិភាព ភាពប្រទាក់ក្រឡា និងភាពគ្រប់ជ្រុងជ្រោយនៃឧបករណ៍ស្រាវជ្រាវនេះ ខ្ញុំសូមគោរពស្នើសុំលោកសាស្ត្រាចារ្យជាអ្នកជំនាញក្នុងការផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរនេះ ។

អាស្រ័យដូចបានជម្រាបជូនខាងលើសូមលោកសាស្ត្រាចារ្យទទួលពិនិត្យ កែសម្រួល និងផ្តល់ភាពត្រឹមត្រូវលើកម្រងសំណួរសិក្សាស្រាវជ្រាវនេះដោយក្តីអនុគ្រោះ ។

សូមលោកសាស្ត្រាចារ្យមេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះអំពីខ្ញុំ ។

ថ្ងៃចន្ទ ៨កើត ខែស្រាពណ៍ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
រាជធានីភ្នំពេញ ថ្ងៃទី១២ ខែសីហា ឆ្នាំ២០២៤

ហត្ថលេខា


បណ្ឌិត អ៊ឹម សិរីធើរ
(សាស្ត្រាចារ្យជំនាញនិក្ខេបបទ)

Index of Item-Objective Congruence (IOC) Form

Research Entitled:
Students' perception of the impact of AI generative tools in learning the English language

Instruction: This IOC form seeks the expert's feedback on the degree of congruence between the research instrument questions, the research objectives of the study, and the definitions of the terms. The scoring system for IOC is as follows:

+1 = congruent with objectives and definition

0 = not clear at all

-1 = incongruent with objectives and definition

NOTE: For each item of the questionnaire, the study adopts a 5-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree) to measure the effects of intrinsic and extrinsic motivation on students' academic performance.

Objectives of the Study

1. To find out students' opportunities to use AI generative tools in learning the English language.
2. To determine the challenges of using AI generative tools in learning the English language according to students' perceptions.
3. To explore what should be the ethics of using AI generative tools in learning the English language now and in the future.

Research Questions

1. What are the students' opportunities for using AI tools in learning the English language?
2. What are the challenges of AI tools in learning the English language according to students' perceptions?
3. What are the ethics of using AI generative tools in learning the English language now and in the future?

		Expert IOC Rating			
No.	Survey Statements	+1	0	-1	Remarks
Opportunities of using AI tools for learning the English language: Self-studying					
1	I become an independent learner.	✓			
2	I can improve macro skills in English (reading, listening, writing, speaking).	✓			
3	I complete tasks easily and quickly.	✓			
4	My mind is opened to new ways of learning.	✓			
5	I can cooperatively learn with AI tools.	✓			
6	I can develop skills in using new technology.	✓			

7	I get more experience in learning English.	√			
8	I can use AI tools for 24/7 support.	√			
9	I can use AI tools to create slides and other content designs.	√			
10	I can run up to the new generation of technology.	√			
Challenges of using AI generative tools in learning the English language					
11	I lack the use of technology to access AI generative tools.	√			
12	I am concerned about my account being hacked when connecting to AI tools.	√			
13	I am paying the most cost to process AI tools.	√			
14	AI provides bias and errors in information when generating tasks.	√			
15	AI tools have limitations of using AI generative tools (time, space, source...).	√			
16	AI can reduce the critical thinking and self-practices of humans.	√			
17	I cut off interaction and engagement with the environment of learning.	√			
18	I don't know how to connect with AI Tools.	√			
19	I feel untrusted about using AI generative tools.	√			
20	I spend a lot of internet to access it.	√			
Ethical of using AI generative tools in learning the English language					
21	AI tools should keep the privacy and security of the personal account information of users.	√			
22	AI tools should offer users with low price to generate information.	√			
23	AI tools should set clear policies for using AI generative tools.	√			
24	AI tools should show up with clear information about the trust in using AI.	√			
25	AI tools should have open-course training for people widely.	√			
26	AI tools should use easy steps to connect.	√			
27	AI tools should allow big space for use.	√			
28	AI tools give true information to users.	√			
29	AI tools should sign up for free.	√			
30	AI tools should assign people with problems.	√			

Expert's Name: **Asst. Prof. Dina Pen**

Signature: 

Index of Item-Objective Congruence (IOC) Form

Research Entitled:
Students' perception of the impact of AI generative tools in learning the English language

Instruction: This IOC form seeks the expert's feedback on the degree of congruence between the research instrument questions, the research objectives of the study, and the definitions of the terms. The scoring system for IOC is as follows:

+1 = congruent with objectives and definition

0 = not clear at all

-1 = incongruent with objectives and definition

NOTE: For each item of the questionnaire, the study adopts a 5-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree) to measure the effects of intrinsic and extrinsic motivation on students' academic performance.

Objectives of the Study

1. To find out students' opportunities to use AI generative tools in learning the English language.
2. To determine the challenges of using AI generative tools in learning the English language according to students' perceptions.
3. To explore what should be the ethics of using AI generative tools in learning the English language now and in the future.

Research Questions

1. What are the students' opportunities for using AI tools in learning the English language?
2. What are the challenges of AI tools in learning the English language according to students' perceptions?
3. What are the ethics of using AI generative tools in learning the English language now and in the future?

		Expert IOC Rating			
No.	Survey Statements	+1	0	-1	Remarks
Opportunities of using AI tools for learning the English language: Self-studying					
1	I become an independent learner.	√			
2	I can improve macro skills in English (reading, listening, writing, speaking).	√			
3	I complete tasks easily and quickly.	√			
4	My mind is opened to new ways of learning.	√			
5	I can cooperatively learn with AI tools.	√			
6	I can develop skills in using new technology.	√			

7	I get more experience in learning English.	√			
8	I can use AI tools for 24/7 support.	√			
9	I can use AI tools to create slides and other content designs.	√			
10	I can run up to the new generation of technology.	√			
Challenges of using AI generative tools in learning the English language					
11	I lack the use of technology to access AI generative tools.	√			
12	I am concerned about my account being hacked when connecting to AI tools.	√			
13	I am paying the most cost to process AI tools.	√			
14	AI provides bias and errors in information when generating tasks.	√			
15	AI tools have limitations of using AI generative tools (time, space, source...).	√			
16	AI can reduce the critical thinking and self-practices of humans.	√			
17	I cut off interaction and engagement with the environment of learning.	√			
18	I don't know how to connect with AI Tools.	√			
19	I feel untrusted about using AI generative tools.	√			
20	I spend a lot of internet to access it.	√			
Ethical of using AI generative tools in learning the English language					
21	AI tools should keep the privacy and security of the personal account information of users.	√			
22	AI tools should offer users with low price to generate information.	√			
23	AI tools should set clear policies for using AI generative tools.	√			
24	AI tools should show up with clear information about the trust in using AI.	√			
25	AI tools should have open-course training for people widely.	√			
26	AI tools should use easy steps to connect.	√			
27	AI tools should allow big space for use.	√			
28	AI tools give true information to users.	√			
29	AI tools should sign up for free.	√			
30	AI tools should assign people with problems.	√			

Expert's Name: **Somphors Khan**

Signature: 

Index of Item-Objective Congruence (IOC) Form

Research Entitled:
Students' perception of the impact of AI generative tools in learning the English language

Instruction: This IOC form seeks the expert's feedback on the degree of congruence between the research instrument questions, the research objectives of the study, and the definitions of the terms. The scoring system for IOC is as follows:

+1 = congruent with objectives and definition

0 = not clear at all

-1 = incongruent with objectives and definition

NOTE: For each item of the questionnaire, the study adopts a 5-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree) to measure the effects of intrinsic and extrinsic motivation on students' academic performance.

Objectives of the Study

1. To find out students' opportunities to use AI generative tools in learning the English language.
2. To determine the challenges of using AI generative tools in learning the English language according to students' perceptions.
3. To explore what should be the ethics of using AI generative tools in learning the English language now and in the future.

Research Questions

1. What are the students' opportunities for using AI tools in learning the English language?
2. What are the challenges of AI tools in learning the English language according to students' perceptions?
3. What are the ethics of using AI generative tools in learning the English language now and in the future?

		Expert IOC Rating			
No.	Survey Statements	+1	0	-1	Remarks
Opportunities of using AI tools for learning the English language: Self-studying					
1	I become an independent learner.	√			
2	I can improve macro skills in English (reading, listening, writing, speaking).	√			
3	I complete tasks easily and quickly.	√			
4	My mind is opened to new ways of learning.	√			
5	I can cooperatively learn with AI tools.	√			
6	I can develop skills in using new technology.	√			

7	I get more experience in learning English.	√			
8	I can use AI tools for 24/7 support.	√			
9	I can use AI tools to create slides and other content designs.	√			
10	I can run up to the new generation of technology.	√			
Challenges of using AI generative tools in learning the English language					
11	I lack the use of technology to access AI generative tools.	√			
12	I am concerned about my account being hacked when connecting to AI tools.	√			
13	I am paying the most cost to process AI tools.	√			
14	AI provides bias and errors in information when generating tasks.	√			
15	AI tools have limitations of using AI generative tools (time, space, source...).	√			
16	AI can reduce the critical thinking and self-practices of humans.	√			
17	I cut off interaction and engagement with the environment of learning.	√			
18	I don't know how to connect with AI Tools.	√			
19	I feel untrusted about using AI generative tools.	√			
20	I spend a lot of internet to access it.	√			
Ethical of using AI generative tools in learning the English language					
21	AI tools should keep the privacy and security of the personal account information of users.	√			
22	AI tools should offer users with low price to generate information.	√			
23	AI tools should set clear policies for using AI generative tools.	√			
24	AI tools should show up with clear information about the trust in using AI.	√			
25	AI tools should have open-course training for people widely.	√			
26	AI tools should use easy steps to connect.	√			
27	AI tools should allow big space for use.	√			
28	AI tools give true information to users.	√			
29	AI tools should sign up for free.	√			
30	AI tools should assign people with problems.	√			

Expert's Name: **Nel Nun**

Signature: 



ព្រះរាជាណាចក្រកម្ពុជា
KINGDOM OF CAMBODIA
ជាតិ សាសនា ព្រះមហាក្សត្រ
NATION RELIGION KING

សាកលវិទ្យាល័យជាតិជាស៊ីមកំចាយមារ
NATIONAL UNIVERSITY OF CHEASIM KAMCHAYMEAR

លេខ ១៦ សជជក

ថ្ងៃសុក្រ ១៣ រោច ខែ អាសាធ ឆ្នាំរោង ឆស័ក ព.ស. ២៥៦៨
កំចាយមារ ថ្ងៃទី០២ ខែសីហា ឆ្នាំ ២០២៤

សាកលវិទ្យាធិការសាកលវិទ្យាល័យជាតិជាស៊ីមកំចាយមារ

ជម្រាបជូន

លោកនាយកប្រតិបត្តិសាលាសាកលវិទ្យាល័យជាតិជាស៊ីមកំចាយមារ ខេត្តកំពង់ចាម

កម្មវត្ថុ: សំណើសុំការអនុញ្ញាតឱ្យនិស្សិតឈ្មោះ: អុន ត្រីឡេត ជានិស្សិតថ្នាក់បរិញ្ញាបត្រជាន់ខ្ពស់ ជំនាញ អក្សរសាស្ត្រអង់គ្លេស បានចុះសរសេរបាយការណ៍បញ្ចប់ការសិក្សានៅ សាលា សាកលវិទ្យាល័យជាតិជាស៊ីមកំចាយមារ ខេត្តកំពង់ចាម ចាប់ពីថ្ងៃទី១៩ ខែសីហា ឆ្នាំ២០២៤ ដល់ថ្ងៃទី២៣ ខែកញ្ញា ឆ្នាំ២០២៤។

សេចក្តីដូចបានចែងក្នុងកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាបជូនលោកនាយកប្រតិបត្តិជានិស្សិត មានឈ្មោះខាងលើ បានសិក្សាចប់ផ្នែកទ្រឹស្តីលើកម្មវិធីសិក្សា របស់សាលាថ្នាក់ក្រោយបរិញ្ញាបត្រ នៃសាកល វិទ្យាល័យជាតិជាស៊ីមកំចាយមារ ប្រកបដោយជោគជ័យ។ ប៉ុន្តែកម្មវិធីសិក្សាតម្រូវឱ្យនិស្សិតរូបនេះធ្វើកម្ម សិក្សាប្រតិបត្តិដើម្បីសិក្សាស្រាវជ្រាវ និងសរសេរបាយការណ៍លើប្រធានបទស្តីពី " STUDENTS' PERCEPTIONS OF THE IMPACT OF AI GENERATIVE TOOLS IN LEARNING THE ENGLISH LANGUAGE. " សម្រាប់បញ្ចប់ការសិក្សាបរិញ្ញាបត្រជាន់ខ្ពស់ជំនាញ

អក្សរសាស្ត្រអង់គ្លេស។

ខ្ញុំសូមបញ្ជាក់ថានិស្សិតដូចមានឈ្មោះខាងលើមាន :

- អត្តចារឹក : ល្អ
- ការគោរពវិន័យរៀនសូត្រ : ល្អ
- កិរិយាមរយាទ : ល្អ
- ការសិក្សា : ល្អ

អាស្រ័យហេតុនេះ សូមលោកនាយកប្រតិបត្តិអនុញ្ញាត និងជួយសម្រួលឱ្យនិស្សិតរូបនេះបានចុះធ្វើ កម្មសិក្សាប្រតិបត្តិ និងសរសេរបាយការណ៍ តាមសំណើសុំខាងលើដោយក្តីអនុគ្រោះ ។

សូមលោកនាយកប្រតិបត្តិទទួលនូវការរាប់អានអំពីខ្ញុំ ។



ហាស ធឿន



Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author: Sereyrath Em
Assignment title: Chapter 2
Submission title: Thesis-On Sreylet Chapters 1-6.pdf
File name: Thesis-On_Sreylet_Chapters_1-6.pdf
File size: 437.4K
Page count: 54
Word count: 14,221
Character count: 80,405
Submission date: 13-Oct-2024 10:04PM (UTC+0700)
Submission ID: 2407837633

CHAPTER ONE

INTRODUCTION

The impact of AI programs has commonly increased throughout the era on society worldwide. Therefore, AI plays an important role in education as well. It provides many benefits for teaching and learning. The following parts will explore every AI tool in this study. The first thing is defining the background of the study, the problem statement, the research purpose, the objective of the study, the research question, the significance of the study, the definition of key terms, and the summary of the chapter.

1.1. Background of the study

Artificial intelligence (AI) is growing and finding applications at a startling rate; it is now a part of our everyday life. In actuality, artificial intelligence has altered how individuals learn. Nevertheless, its implementation in the educational field has been fraught with difficulties and moral dilemmas (Gökçeşen et al., 2024). A growing number of organizations are offering AI technology solutions, with categories including text, image, code, video, audio, and business. These tools are meant for a variety of uses. (Slacher & Droque, 2024).

Moreover, the study by Epstein et al. (2023) the capabilities of a new class of tools, informally known as generative artificial intelligence (AI), is the subject of intense controversy. One notable application thus far has been the creation of high-quality artistic media for visual arts, concept art, music, and literature, as well as video and animation. Diffusion models, for example, may generate high-quality photographs (1), whereas large language models (LLMs) can generate convincing prose and verse in a variety of scenarios (2).

Development of chatbots and robots that enhance learning for students in all educational settings, including higher education. Thus, chatbots and other forms of artificial intelligence in

Thesis-On Sreylet Chapters 1-6.pdf

ORIGINALITY REPORT

19%

SIMILARITY INDEX

11%

INTERNET SOURCES

9%

PUBLICATIONS

12%

STUDENT PAPERS

PRIMARY SOURCES

1

www.researchgate.net

Internet Source

3%

2

Moulieswaran N, Prasantha Kumar N S.
"Investigating ESL Learners' Perception and
Problem towards Artificial Intelligence (AI) -
Assisted English Language Learning and
Teaching", World Journal of English Language,
2023

Publication

1%

3

docs.google.com

Internet Source

1%

4

seenthis.net

Internet Source

1%

5

Nehir Sert, Ebru Boynueğri. "Digital
technology use by the students and english
teachers and self-directed language learning",
World Journal on Educational Technology:
Current Issues, 2017

Publication

<1%

6

Submitted to Mancosa

Student Paper

<1%





