People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
Echahid Cheikh Larbi Tebessi University -Tébessa-
Faculty of Letters and Languages
Department of English Language and Literature

The Role of GPT to Enhance Master Students' English Academic Vocabulary in Academic Writing: The Case of First-Year Masters' LS Students at Tebessa University

A Dissertation Submitted to the Department of Letters and English Language in Partial Fulfillment of the Requirements for the Degree of Master in Language Sciences

Candidates:

SAADI El-houcine

GHEZIL Ikhlas

Supervisor:

Dr. MAITA Hanane

Board of Examiners

President:	Ms.Douaibia Asma (MAA)	Larbi Tebessi, Tebessa University
Supervisor:	Dr.Maita Hanane (MAB)	Larbi Tebessi, Tebessa University
Examiner:	Dr.Chaouchi Nawel (MAB)	Larbi Tebessi, Tebessa University

2024/2025

Abstract

This dissertation investigates the role of GPT as a language model on academic vocabulary development in academic writing, focusing on first-year Master's students in Language Sciences at Tebessa University. The study aims to provide comprehensive insights into the effectiveness of the model on students' performance in learning and using academic vocabulary. The research used a mixed data collection method through a detailed questionnaire and semi-structured interviews. Our study engaged all FMLS students. The methodology reports questionnaire and interview findings and assesses the model's role. Descriptive statistics were used to address research queries, complemented by qualitative analysis. The study aims to determine whether GPT can be considered as an effective tool for academic vocabulary development. The independent variable is the use of GPT technology, while the dependent variable is academic vocabulary enhancement. Key areas of focus include the role of GPT in the acquisition and appropriate use of academic vocabulary and its potential to foster or hinder academic vocabulary development. Findings reveal that students perceive GPT as an effective tool for academic vocabulary enhancement when using the model with awareness. However, the study also identified potential drawbacks, such as over-reliance on the tool, which may hinder the independent development of academic vocabulary. Despite these challenges, the research highlights the potential of GPT as a supportive tool for fostering academic language. Participants emphasized the importance of guide implementation, with clear instructions to balance the benefits of GPT with traditional learning methods.

Keywords: GPT, AI, academic, vocabulary, model

Acknowledgment

First and foremost, we thank Allah for His guidance and support in completing this dissertation. We would like to express our heartfelt gratitude to our supervisor, Dr. Maita Hanane, for her dedicated efforts and support from the very beginning of this journey. We also extend our sincere thanks to jury members for accepting to read and evaluate this dissertation. Our gratitude goes to everyone who contributed to the completion of this work in a way or another.

Dedication

In the name of Allah, the Most Gracious, the Most Merciful.

I would like to extend my heartfelt thanks and dedicate this dissertation to:

My parents, brothers, close relatives and friends, who have been my support team and a source of motivation to move forward in completing this work.

My partner in this dissertation, Ghezil Ikhlas, for her collaboration and tireless efforts in completing the study.

Our supervisor, Dr. Maita Hanane, who generously gave her time and effort to guide us throughout this journey.

The jury, for accepting to read and discuss this dissertation.

And to myself as I spent days and nights working on the dissertation.

EL-Houcine Saadi

Dedication

I would like to express my deepest gratitude to Allah, who enabled me to complete this work and live this moment.I dedicate this achievement to myself, for being strong, persistent, and not giving up even when quitting seemed easier than pushing forward. And finally, we have reached the end—Alhamdulillah. To my dear family: To my parents, Abderrazak and Rahima, thank you for your endless support and encouragement throughout this journey. To my brother Zaki and my sisters—my soulmate and best sister ever Zayneb, and my beloved Rayen and Riheb—thank you for your love and for believing in me even when I didn't believe in myself. To my beautiful nephews—Moncef, Jouriya, Jawed, Farah, Nafaa, Taj Eddine, and Mouamin—thank you for reminding me that joy exists, even between research papers and deadlines. I would also like to thank my thesis partner and collaborator, El Houcine Saadi, for his patience and motivation. Thank you for making this journey unforgettable—I couldn't have done it without you. A special thanks to my dear supervisor, Dr. Maita Hanen, for her scholarly guidance and dedication, which made this research possible. I extend my heartfelt thanks to my best friends—Kods, Aya, Hadjer, and Rahma—who stood by me in every moment and every time I needed them. To my university friends—Nour, Chourouk, Hana, Nesrin, and Marwa—thank you for being part of my life. To those I may have forgotten to mention, please forgive me—you are all in my heart. To my critics and doubters: your "you can't" became my starting point. I sincerely thank the attending professors for their presence and support. May Allah grant us all continued success and strength as we move forward in life.

"They doubted, we proved."

Ikhlas Ghezil

Table of Contents

Abstract....II

Acknowledgment....III

Dedication....IV

Dedication....V

Table of Contents....VI

List of Abbreviations....IX

List of Tables....X

List of Figures....XII

General Introduction....1

1. Background of the Study....1

2. Statement of the Problem....2

3. Aims of the Study....3

4. Research Questions and Hypothesis....3

5. Research Methodology....4

6 Significance of the Study....5

7. Structure of the Dissertation....5

Chapter One: Literature Review....7

1.1 .GPT as a Large language Model and Its Implementation in Academic Writing....7

1.1.1. The Emergence of GPT and Its Development....7

1.1.2 Definition of GPT as a Large Language Model....10

1.1.3.The Use of GPT Among Global and Algerian Universities....11

1.1.3.1.The Use of GPT Among Global Universities....11

1.1.3.2.The Use of GPT in African Universities....12

1.1.3.3.The Use of GPT in Algerian Universities....14

1.1.4. Academic Writing Definition....18
1.1.5.The Relation of GPT and Academic Writing....19
1.1.6.The Role of GPT in Formal Tone and Vocabulary....21
1.2. The Importance of Academic vocabulary in Academic Writing Quality....27
1.2.1. Definitions of Academic Vocabulary....27
1.2.2.Types of Academic Vocabulary....28
1.2.2.1.General Academic Words....28
1.2.2.2.Subject-specific (or domain-specific) Academic Words....29
1.2.3.Significance of Academic Vocabulary....29
1.2.4.Learning and Teaching Academic Vocabulary....33
1.2.5.Academic Vocabulary Across Disciplines....36
1.2.6.Challenges Faced by Students to Acquire Academic Vocabulary....39
Conclusion....44
Chapter Two: Research Methodology, Data Analysis and Interpretation....46
2.1. Research methodology....47
2.1.1.Research Design....47
2.1.2.Population and Sample....48
2.1.3.Tools of Investigation....50
2.1.3.1.Questionnaire....50
2.1.3.2.Semi-structured interview....53
2.2.Data Analysis and Interpretation of the Findings....55
2.2.1. Analysis of the Questionnaire....55
2.2.1.1.Analysis and Interpretation of the Close-ended Answers....55
2.2.1.2.Analysis and Interpretation of the Open-ended Answers....67
2.2.2. Analysis of the Semi-structured Interview Answers....78

2.3.Discussion..... 98

2.4.Implications..... 104

2.5.Limitations..... 104

2.6.Recommendations for Future Research..... 105

General Conclusion..... 107

References..... 109

Résumé..... 116

ملخص..... 117

Appendices..... 118

List of Abbreviations

AI Artificial Intelligence

AWCT Academic Writing and Critical Thinking

BA Bachelor of Arts

EFL English as a Foreign Language

ESL English as a Second Language

ELL English Language Learners

FMLS First-Year Master Language Sciences

GPT Generative Pre-trained Transformer

IAIN Institut Agama Islam Negeri

MA Master of Arts

NLP Natural Language Processing

NYU New York University

PhD Doctor of Philosophy

List of Tables

Table 1: GPT-4 providing 100 academic words 23

Table 2 : Reliability Statistics 53

Table 3: Student's age 55

Table 4: Level of proficiency in academic writing 56

Table 5: Frequency of GPT use for academic writing 57

Table 6: Extent of improvement in use of academic vocabulary 58

Table 7: Improvement in ability to use appropriate academic vocabulary 59

Table 8: GPT help in identifying and replacing informal words with academic alternatives 59

Table 9: Reliance on GPT to generate complex or discipline-specific vocabulary 60

Table 10: Influence of GPT on ability to learn and retain academic vocabulary 61

Table 11: Challenges encountered when using GPT to improve academic vocabulary 61

Table 12: Alignment of GPT's vocabulary suggestions with academic context 62

Table 13: The extent to which GPT overcomplicate writing with unnecessary vocabulary . .63

Table 14: Primary purpose for using GPT in academic writing 64

Table 15: Frequency of revising GPT-generated content 65

Table 16: Strategies used to ensure GPT's vocabulary suggestions align with academic goals 66

Table 17: Balance of GPT's influence with own efforts to develop formal writing skills ….66

Table 18: GPT-4 providing 100 academic words 68

Table 19 : Students' Strategies for Prompting GPT to Provide Accurate Academic Vocabulary.....70

Table 20: Perceived Risks of GPT Use on Students' Academic Vocabulary Development 72

Table 21: Students' Perspectives on the Impact of GPT Unavailability on Their Academic Vocabulary Learning Methods..... 75

Table 22: Students' Preferences for Alternative AI Tools Over GPT for Learning Academic Vocabulary 77

Table 23: Changes in Academic Vocabulary Development Before and After Using GPT 79

Table 24: The Influence of GPT on Students' Ability to Use Academic Vocabulary in Academic Writing.....82

Table 25: Examples of GPT's Role in Enhancing Academic Vocabulary Development 85

Table 26: Students' Perceptions of GPT's Explanations for Suggested Academic Vocabulary 88

Table 27: Challenges and Limitations of Relying on GPT for Vocabulary Development 90

Table 28: Observed Differences in Academic Vocabulary Usage Between GPT Users and Non-Users 93

Table 29: Perceived Long-Term Impact of GPT on Academic Language Development.....95

List of Figures

Figure 1: Map of Africa Showing the top ten African Countries that used GPT ……..13

Figure 2: Students' Gender ……..…… 56

General Introduction

1. Background of the Study

Have you ever wondered about the role that AI tools play in various academic skills of university students? The rapid and widespread use of these tools has caught our attention, prompting us to investigate GPT's role in academic vocabulary improvement in related to academic writing. This aspect is crucial for academic writing performance , which ultimately influences students evaluation in all modules.

GPT, known as "Generative Pre-trained Transformer", is a type of large language models developed by OpenAI. It uses a transformer-based architecture to understand and generate human-like text. These models are pre-trained on massive amounts of text in an unsupervised manner, enabling them to learn complex language patterns and structures (OpenAI, 2023). GPT has a significant impact on academic writing , and Bailey (2014) defined Academic Writing as a formal style of writing used in scholarly and professional contexts and is characterized by clarity, objectivity, and evidence-based arguments. Among the key elements of academic writing, academic vocabulary that plays a vital role, defined by McCarthy (2008) as words and phrases that are suitable for professional, academic, or official communication, characterized by a higher degree of formality and precision. This type of vocabulary avoids colloquial expressions, slang, and contractions.

In the literature, there are varying perspectives on the effect of GPT on academic vocabulary. Shaikh et al. (2023) evaluated ChatGPT's usability for formal English language learning. The study showed that ChatGPT is highly effective for this purpose. However, its findings are limited by the sample used, making it difficult to generalize the results.

Fulton (2023) hypothesized that using specific words in prompts could enhance the quality and depth of AI-generated content. However, Fulton (2023) acknowledged this idea is theoretical and not based on extensive testing.

The tests conducted by Fulton, as mentioned, cannot be fully relied upon to determine the effectiveness of ChatGPT in improving the quality and depth of AI-generated content, as his study was theoretical and did not undergo further research or practical application using other methods.

Reviriego et al. (2023) compared the vocabulary and lexical diversity of ChatGPT and humans. Their study found that ChatGPT-3.5 uses fewer distinct words and has lower lexical diversity than humans, while ChatGPT-4 performs similarly or better in some cases. The researchers emphasized the need for further studies to explore the impact of generative AI on vocabulary and lexical diversity in different contexts.

This reflects the need for further research and experimentation on the efficiency of ChatGPT in vocabulary development. Moreover, human skills cannot be disregarded, nor can reliance be placed solely on giving commands to this model.

Martínez et al. (2023) assessed ChatGPT's understanding of language using the ChatWords tool. ChatGPT recognized 80% of words from a Spanish dictionary and 90% from *Don Quixote* but occasionally misunderstood word meanings. The study highlighted the implications of AI's lexical knowledge and proposed future research directions to enhance its language comprehension.

2. Statement of the problem

The use of GPT has drawn researchers’ attention to investigating its performance in various aspects of academic writing , including essay writing, text summarization, efficiency and accuracy, formal English language learning, word quality, vocabulary, and lexica

diversity. However, it seems that there is almost no focus on the model's specific role in academic vocabulary improvement. This lack of attention has created a gap in the literature. Addressing this gap is crucial for enriching our understanding of how the model affects an important aspect of academic writing which is the use of academic vocabulary instead of informal or casual language. The study seeks to uncover the role that GPT plays in academic vocabulary development and to discover whether GPT is a useful tool or if it is unsuitable for such an academic aspect.

3. Aims of the study

Due to the limited research and the lack of focus on GPT's role in academic vocabulary, especially in academic writing , the aims are :

- Investigating whether GPT can be perceived as an effective tool for improving academic vocabulary .
- Exploring the models potential risks on the use of academic vocabulary.
- Exploring the challenges students face when using academic vocabulary using the model.
- Exploring the strategies employed while using GPT to achieve desired results for academic vocabulary development .

4. Research questions and hypothesis

Study Questions:

RQ 01: Do students perceive GPT as an effective tool for developing their academic vocabulary?

RQ 02 : What potential risks does GPT pose to students' academic language development ?

Hypothesis

H01: Students perceive GPT as a highly effective tool for developing their academic vocabulary, as it helps them learn academic alternatives and expressions more efficiently and apply them appropriately in their academic writing.

H02: Students who over-rely on GPT might lose their creative skills and own abilities to use academic vocabulary.

5. Research Methodology

This study employs a mixed-method research design, combining a questionnaire and semi-structured interviews to collect data about students perspectives towards using GPT for academic vocabulary development. The questionnaire consists of 16 closed-ended questions using Likert scales and 5 open-ended questions to collect both quantitative and qualitative data on how students use GPT and its effectiveness in improving academic vocabulary. Semi-structured interviews with 10 voluntary participants provide deeper insights into the students' personal experiences with GPT, particularly regarding the challenges and strategies they use to improve their academic vocabulary. This design allows for a comprehensive understanding of GPT's performance in academic vocabulary enhancing.

The research is conducted at the Faculty of Letters and Languages at Echahid Cheikh Laarbi Tebessi University, focusing on English first-year Master's students in the Language Sciences. The sample includes all FMLS , chosen through total population and voluntary sampling methods. Data is collected via an online questionnaire distributed through an Instagram chat group and phone calls interviews. By including both close-ended and open-ended questions, the study aims to provide detailed insights into how GPT plays its role as a language model to develop students' academic vocabulary.

6. Significance of the study

This study is important because it explores how GPT language model affects students' use of academic vocabulary , specifically in academic writing . Academic vocabulary is a key part of effective academic writing, and understanding GPT's performance in this aspect can help students make better use of the model.

By identifying both the benefits and challenges of using GPT, this study provides valuable insights into how it can improve students' academic language while avoiding potential negative effects. It also offers practical strategies for using GPT effectively, helping students improve their academic vocabulary and gradually become less dependent on the tool. Ultimately, this research contributes to the growing knowledge about the role of AI in education and helps guide its responsible use in academic settings.

7. Structure of the Dissertation

In addition to a general introduction and a general conclusion, the dissertation is structured by two main chapters, with the first chapter divided into two sections. The initial section contains literature review related the first variable, which is the use of GPT technology, and titled "GPT as a Large language Model and Its Implementation in Academic Writing" explores the definition of GPT, and provides overview about the emergence of GPT and its development through history. Also the section contains information about the use of the model across global and Algerian universities. Further more the section discusses the implementation of the model in academic writing through a set of studies and move to talk about studies related to the model use in formal tone and vocabulary development. The subsequent section, "The Importance of academic vocabulary in Academic Writing Quality" shifts focus to talk about the second variable of the study which is academic vocabulary development in academic writing , providing the definition of academic vocabulary and

insights into the role of academic vocabulary in academic writing. The suction further tackled the academic vocabulary across disciplines and challenges faced by students to acquire academic vocabulary. The second chapter, “Methodology” details the methodology employed in the study, including research design, setting, population, sampling, and the used tools with its procedures. It presents and analyses the findings from the questionnaire and the semi-structured interviews, followed by a general discussion of the results. Additionally, this study offers recommendations for future research and acknowledges the limitations of the study. This structured approach ensures a comprehensive exploration of the research topic from both theoretical and practical perspectives, allowing for a thorough understanding of the model's role in academic vocabulary improvement.

Chapter One: Literature Review

Introduction

Familiarizing oneself with previous knowledge regarding the role of GPT on academic writing is a necessary and important step to pave the way for conducting practical research. Through this literature review, several titles will be covered, each encompassing a set of related studies. It is worth noting that the studies in this review are organized from general to more specialized ones on the topic. The literature review of this study is divided into two sections, each addressing one of the tow key variables: the first section explores the role of GPT technology, while the second focuses on the development of academic vocabulary.

1.1 .GPT as a Large language Model and Its Implementation in Academic Writing.

This section provides a comprehensive overview of GPT as a large language model and explores its growing role in academic writing. It begins by tracing the emergence and development of GPT technology, followed by a clear definition of the model. The discussion then extends to the adoption and usage of GPT in academic contexts, both globally and within Algerian universities. To establish a clear foundation, the section also defines academic writing and highlights the relationship between GPT and this formal mode of expression. Finally, special attention is given to how GPT contributes to enhancing the formal tone and vocabulary typically required in academic writing.

1.1.1. The Emergence of GPT and Its Development

The world of text generation has quickly and qualitatively changed from a phase where it relied mainly on human creation to a phase where automated generation, powered by smart computer programs, took the lead. This revolutionized how texts are produced and how lin-

guistic data is handled. The key impetus to this shift was the development of artificial intelligence technologies that particularly centered around GPT models, which went through four significant versions to improve the generation of text in a more accurate and realistic way.

Radford et al. (2018) presented the emergence of GPT by saying that GPT's journey began in 2018 with the release of GPT-1 by OpenAI. They stated that GPT is a novel model designed to generate human-like text using a transformer architecture. GPT-1 contained 117 million parameters, and its main innovation was its ability to perform a variety of natural language processing (NLP) tasks after pretraining on a large corpus of text, without requiring task-specific training (Radford et al.,2018).They remarked that this approach showed promise for a broad range of NLP applications, from translation to summarization.

While GPT-1 laid the foundation, it is still seen as a starting point. As researchers, we view this as the beginning of AI's potential influence on education—though it was limited, it sparked interest in how such models could assist learners with language-related tasks.

The exploration of GPT-1, the first version, continued until the release of the second version GPT -2 in 2019, as Radford et al. (2019) stated that OpenAI introduced GPT-2, a much larger model with 1.5 billion parameters in 2019. They mentioned that GPT-2 demonstrated the ability to generate highly coherent and contextually accurate text over extended passages, sparking interest due to its ability to write essays, poems, and even code.

OpenAI initially hesitated to release the full version of GPT-2 due to concerns about its potential misuse, such as generating fake news (Radford et al.,2019). However, they eventually released it in stages after further research on its implications (Radford et al., 2019). It is noticeable that the early and the second versions of GPT were more modest compared to the later versions, which will be revealed in the following paragraphs.

Similar to the first version, GPT-2 was used for a full year until the release of the third version in 2020, GPT-3, where Brown et al. (2020) stated that GPT-3, released in 2020, marked a major milestone with 175 billion parameters, making it one of the largest language models at the time. GPT-3 showed substantial improvements over its predecessors in both quality and versatility, demonstrating the ability to perform few-shot learning (Brown et al.,2020). This means that it could complete tasks with little to no task-specific data, relying on the pretraining on a massive dataset (Brown et al.,2020) . GPT-3 was widely used in various applications, from chatbots to automated writing assistants, and gained attention for its ability to generate highly convincing text and even write code (Brown et al.,2020) .

GPT-3 was a major step forward in AI development. Its ability to handle tasks with little information showed great improvement in its flexibility and performance. This made it useful for many applications, such as chatbots and writing tools, and demonstrated how AI could create natural-sounding text and even help with coding.

In contrast to the previous versions, the third version, GPT-3, was used for three years until the release of the fourth version, GPT-4,which is still in use today. OpenAI (2023) in "GPT-4 Technical Report" states that GPT-4, launched in 2023, continued the trend of scaling up the model. It is a more refined and robust model, featuring multi-modal capabilities (text and images) and further improvements in reasoning, contextual understanding, and factual accuracy (OpenAI,2023). GPT-4's performance exceeded that of previous versions in several benchmarks, showing significant advancements in comprehension, dialogue coherence, and handling complex instructions (OpenAI,2023).

Thus, in general, the whole development and rise of GPT have been both rapid and qualitative. OpenAI is enthusiastic and driven by relying on more advanced models of text generation that are more accurate. As for discussing the advantages and disadvantages of this language model, this is a different story, and we cannot discuss it broadly here. But we'll touch upon this issue later in the upcoming points placed in a specific context.

1.1.2 Definition of GPT as a Large Language Model

Radford et al. (2018) defined GPT as an autoregressive language model based on a deep neural network, specifically the transformer architecture. It generates text by predicting the next word in a sequence given the previous context. The model is pre-trained on a large corpus of text data in an unsupervised manner and is later fine-tuned for specific tasks using supervised learning. Its ability to generate human-like text has made it a powerful tool for a range of applications, including text generation and question answering (Radford et al., 2018).

Building on this foundation, Brown et al. (2020) described GPT as a transformer-based language model capable of generating human-like text. Like its predecessor, it undergoes unsupervised pre-training followed by supervised fine-tuning. However, Brown et al. emphasize the model’s flexibility in handling various tasks such as text completion, summarization, and translation, highlighting its adaptability and expanded functionality over earlier versions (Brown et al., 2020).

Similarly, OpenAI (2020), the organization behind GPT, characterized this model as an advanced language processing tool capable of generating, classifying, and summarizing text with a high degree of coherence and accuracy.

This definition is further developed in OpenAI's (2023) updated description, and similar to Radford et al. (2018), presented GPT as a large language model built on transformer architecture, designed to understand and generate human-like text. These models are pre-trained on massive amounts of text data in an unsupervised fashion, enabling them to learn complex patterns and linguistic structures. Their applications include text completion, translation, summarization, and fine-tuning for specific tasks. Most notably, GPT-4 introduced multimodal capabilities, allowing it to process both text and image inputs, thereby enhancing its versatility and performance across a broader range of applications (OpenAI, 2023).

1.1.3.The Use of GPT Among Global and Algerian Universities

GPT has been increasingly adopted by students and teachers across higher education institutions because of the facility of task-making that the model has made and helping students complete their research and answer questions on many different disciplines, as well as helping teachers organize curricula, design educational programs, and assess students.

1.1.3.1.The Use of GPT Among Global Universities

The use of GPT applications (e.g., Chat GPT) has been seen in the American, European, and Asian universities, each adopting different strategies based on institutional goals and ethical considerations. Within the American universities, according to the University of California (2023) report, educators and doctoral candidates use GPT extensively to help in preparing essays, research reports, and papers. These tools offer grammar correction, vocabulary enhancement, and idea generation,particularly for non-native speakers of English. Similarly, Hasanein and Sobaih (2023) found that in certain American universities, GPT is utilized to summarize academic texts, produce literature reviews, and interpret qualitative data, most notably in social sciences and humanities. Nevertheless, institutions such as Harvard University, New York University, and Columbia University have also released guidelines for GPT use in

academic work as a reaction indicating reserve towards total integration. GPT has also experienced widespread adoption in the European context; extensive use by different universities was reported by Deutsche (2023), whose witnesses noted that AI-produced texts would transform the methodology of teaching while raising concerns regarding quality of teaching. Reciting this, Mayer and Garrel (2023) also took a survey among over 6,300 university students from Germany and recognized 66% utilised AI as a means to study and close to 50% designated the primary source tool as GPT. Such findings show growing deployment of GPT across European university systems despite anxieties surrounding too much dependency as well as matters of academic authenticity. University deployments have varied within Asia by territory. In the mainland, Cai (2024) has reported that over 500 universities have opened AI-related majors since 2018, suggesting the government's strategic push towards accepting GPT and other similar technologies in tertiary education. However, Hong Kong universities are not as bold; Huang et al. (2024) has stated that ChatGPT was initially banned due to academic integrity issues, but subsequent amendments allowed for its usage under strict ethical conditions. These regional variations mirror a worldwide trend of increasing GPT adoption in academia driven by divergent educational priorities, regulatory settings, and cultural dispositions toward AI.

1.1.3.2.The Use of GPT In African Universities

The following map shows the top 10 African countries using GPT in 2024. It highlights the countries with the highest usage rates during that year.



Figure 01 *Map of Africa Showing the top ten African Countries that used GPT.*

Note. Adopted from (TAMSON,2024).

In his article Tamson (2024) claimed that data indicates that Kenya leads among the top ten African nations in the use of this interactive AI tool, with Egypt occupying the tenth position. While Nigeria is currently ranked ninth, the sharp rise in ChatGPT users within the

country, as illustrated in the referenced figure, points to a likely ongoing growth in its adoption.

Tarisayi (2024) conducted a study on the use of ChatGPT in South African universities from a socio-technical perspective, reviewing the challenges and opportunities associated with adopting this technology in higher education and states "Whilst findings reveal significant concerns about impartiality, critical faculties and employment impacts, evidence also indicates artificial intelligence, if transparently governed, could enrich scholarship."(Tarisayi, 2024, p. 5)

The widespread use of ChatGPT across Africa, as highlighted by Tamson (2024), showed a growing interest in AI tools like ChatGPT, particularly in Kenya, with other countries like Nigeria expected to follow suit. However, as Tarirai (2024) points out, the adoption of this technology in South African universities comes with both challenges and opportunities. Concerns about bias, critical thinking, and employment impacts are notable, but there is also recognition that, if managed transparently, AI has the potential to enhance academic work and scholarship. This reflects the ongoing debate about how to best integrate AI while addressing its risks.

1.1.3.3.The Use of GPT in Algerian Universities

In a recent mixed method study about the trends of graduate students to use artificial intelligence applications with focus on GPT model, Boubellouta and Zerroug (2024) stated that doctoral students at Algerian universities are increasingly turning to the ChatGPT application as one of their artificial intelligence tools .According to them, the extent to which PhD students use ChatGPT technology as an artificial intelligence application in intermediate education, doctoral students are generally aware of the advantages and disadvantages of using the ChatGPT program throughout the learning process. They reported that females use ChatGPT

technology as one of the artificial intelligence applications more than males, according to statistical analysis.

Boubellouta and Zerroug (2024) provided valuable insight into the growing trend of doctoral students at Algerian universities turning to ChatGPT as a key AI tool in their academic work. Their study highlights students' awareness of both the benefits and potential drawbacks of using ChatGPT throughout the learning process. Interestingly, the study also reveals that female students are more likely to use this technology than their male counterparts, suggesting a gender difference in the adoption of AI tools in academia. This trend reflects the broader shift toward integrating AI in higher education, with varied usage patterns across different groups.

Another study explored Algerian EFL Master's students' attitudes toward using AI Generators like QuillBot and ChatGPT to AI-giarize, in which 66 Algerian EFL Master's students from the University of Saida participated as a sample, Ghounane et al.(2024) said that the findings revealed that students had positive perceptions toward AI generators in plagiarizing .According to Ghounane et al.(2024), the data also suggested that students lacked information about the operation of these generators. The findings also revealed that students received little coaching from their lecturers or supervisors regarding the benefits of these generators in academic writing or raising awareness about their usage to plagiarize(Ghounane et al.,2024). The study finds that AI generators are harmful to the Algerian educational system if academic institutions and universities do not implement restrictions and enhance teachers' and students' knowledge of their use(Ghounane et al., 2024) .

Ghounane et al. (2024) highlighted a concerning issue regarding the use of AI generators in academic writing. The study points to a lack of sufficient education and guidance on how

these tools should be used responsibly, which could lead to misuse, particularly in relation to plagiarism. This underscores the need for academic institutions to take a more active role in educating both students and faculty about the ethical implications of AI technology in education.

Mehdaoui and Bessaid (2024) conducted a study about investigating Algerian EFL teachers' perceptions of students using ChatGPT to learn English, in which Eight EFL teachers from Ibn Khaldoun University participated in structured interviews to provide qualitative data, they found that Most teachers believe that students use ChatGPT as a shortcut for time and effort, which has raised concerns about the tool's impact on language development and essential skills such as critical thinking and academic integrity among students. Especially with the widespread emergence of plagiarism among students using ChatGPT (Mehdaoui & Bessaid,2024).Regarding the integration of artificial intelligence technology such as ChatGPT into the English as a Foreign Language curriculum, they mentioned that opinions were varied. Mehdaoui and Bessaid (2024) stated that while some teachers showed their support for GPT within the student community, others rejected and opposed the idea .These results indicate that potential problems should be carefully assessed before integrating AI tools into educational contexts (Mehdaoui & Bessaid,2024).

Mehdaoui and Bessaid (2024) brought attention to the mixed views EFL teachers hold regarding students' use of ChatGPT. While some see its potential, others express strong concerns, especially about its effect on students’ learning habits and academic values. The findings highlight the importance of addressing ethical and educational risks before fully integrating AI tools into language learning environments.

The use of GPT in Algerian universities presents a distinct profile compared to institutions in American, European, Asian and African universities . In Algeria, studies such as those by Boubellouta and Zerroug (2024) indicate a growing trend among doctoral students to adopt ChatGPT for academic purposes, with a clear awareness of its benefits and drawbacks. Gender differences in usage were noted, with female students using the technology more frequently. However, challenges related to misuse are also prominent. For instance, Ghounane et al. (2024) reported that many Algerian EFL Master's students view AI generators positively for plagiarizing, largely due to a lack of instruction on ethical usage and limited guidance from faculty. Likewise, Mehdaoui and Bessaid (2024) found that Algerian EFL teachers expressed concern about students using ChatGPT as a shortcut, potentially undermining language development and academic integrity.

In contrast, American and European universities generally approach GPT integration more systematically. In the America, GPT is used extensively by both faculty and students for academic writing support, with institutions like Harvard and NYU implementing guidelines to manage its use (University of California, 2023; Hasanein and Sobaih, 2023). European universities report high levels of student engagement with GPT tools while simultaneously expressing concern about overdependence and educational quality (Garrel & Mayer, 2023). Asian universities, particularly in China, have taken a proactive role by launching AI-related academic programs (Cai, 2024), though regions like Hong Kong initially banned ChatGPT due to integrity issues (Huang et al., 2024). In African contexts, Kenya and Nigeria show growing user bases, with South Africa engaging in nuanced discussions around the socio-technical implications of AI in education (Tamson, 2024 & Tarirai, 2024).

Overall, while GPT is gaining popularity across Algerian universities, its use is more unregulated and ethically complex compared to the structured, policy-driven approaches seen in

other regions. This suggests a pressing need for Algerian institutions to implement clear guidelines and raise awareness to ensure responsible integration of AI in higher education.

1.1.4. Academic Writing Definition

According to Oshima and Hogue (2007), academic writing refers to the formal style of writing typically used in high school and university courses. Unlike creative writing, which involves storytelling, or personal writing, such as letters or emails to friends and family, academic writing requires a more structured and formal approach (Oshima & Hogue 2007).They stated that while creative and personal writing often allow for the use of slang, contractions, and incomplete sentences, academic writing avoids these informal elements. Instead, it emphasizes the use of complete sentences, proper grammar, and organized structure (Oshima & Hogue 2007) .

According to Bailey (2014) academic writing is a formal style of writing used in scholarly and professional contexts. It is characterized by clarity, objectivity, and evidence-based arguments. Bailey (2014) emphasizes that academic writing involves presenting ideas in a structured manner, with a focus on analysis, critical thinking, and logical organization. It typically avoids personal opinions and uses a formal tone, while also being precise and concise. He discusses the importance of planning, drafting, revising, and referencing sources accurately to produce credible and well-supported academic texts .

For Wilson (2022) academic writing is a structured process aimed at producing clear, concise, and well-supported arguments. It highlights the importance of questioning and critically analyzing information, from ancient myths to current events, to develop a well-reasoned perspective (Wilson 2022).

Eventually, academic writing is a formal and structured style used in educational and professional contexts. It differs from creative or personal writing by avoiding informal language such as slang or contractions and instead emphasizes clarity, complete sentences, and organized structure. It requires critical thinking, analysis, and logical reasoning to develop well-supported arguments, and it values precision, objectivity, and careful planning throughout the writing process.

1.1.5.The Relation of GPT and Academic Writing

A study about the extent to which GPT-3 is able to generate texts by itself, Osmanovic and Steingrimsson (2022) found that GPT-3 can generate clear and concise descriptions of its own capabilities and features. They also stated that this is a significant advance over previous systems, which have often struggled to produce coherent text about themselves. The researchers believed that the benefits of letting GPT-3 write about itself outweigh the risks. However, they recommended that any such writing be closely monitored by researchers in order to mitigate potential negative consequences (Osmanovic & Steingrimsson, 2022).

Mondal and Mondal (2023) conducted a recent study that explored the impact of ChatGPT on academic writing, and through the study, they provided instructions for its cautious use. In the study, a list of tasks included in preparing a research proposal was used, and this was made by beginner researchers. According to Mondal and Mondal (2023), ChatGPT can develope efficiency and accuracy, which contributes to helping writers produce good research papers. However, Mondal and Mondal (2023) emphasizes the importance of taking precautions and recognizing the possiblel risks of using it, and taking appropriate measures to decrease those risks. To address this issue, Mondal and Mondal (2023) emphasized the importance of critical thinking and human judgment in the writing process. Using ChatGPT does not replace human abilities but rather it is just a helping tool (Mondan & Mondan 2023). Using ChatGPT

wisely provides researchers and writers with benefits while avoiding possible risks, thereby contributing to the continuous development of academic writing (Mondal & Mondal 2023).Furthermore, Mondal and Mondal (2023) warned that excessive reliance on artificial intelligence in all its forms in writing could affect human cognitive abilities. For example, they noticed that people, especially the younger generation, now rarely use handwritten to express love for friends and family; and this raised concerns about the future of human creativity and physical handwritten (Mondal & Mondal 2023).

These studies highlight the ongoing need for balance between using AI tools effectively and maintaining human involvement. They both stress that while GPT can enhance academic work, it should be used with care and oversight to avoid overdependence and preserve essential skills like critical thinking and creativity.

Another study was conducted to investigate the impact of ChatGPT usage on academic writing self-efficacy among 148 postgraduate students from Dhar EL Mahraz, Morocco, The study included statistical analyses to explore the dynamics between ChatGPT use, reliance, and self-efficacy in academic writing, Bouzar et al. (2024) state that the results reveal that ChatGPT users reported higher self-efficacy scores compared to non-users, suggesting the potential of ChatGPT in developing writing self-efficacy by providing continuous feedback and fostering a sense of accomplishment .The data analysis also shows that students' writing self-efficacy strongly influences how long they use ChatGPT,suggesting a positive correlation between self-efficacy and extended ChatGPT engagement (Bouzar et al. 2024). Furthermore, the frequency of ChatGPT use was found to predict reliance on the tool, underscoring a habituation effect (Bouzar et al. 2024).Recommendations include longitudinal studies to assess the evolution of writing self-efficacy with continued ChatGPT use and broader research encompassing various AI tools and academic levels (Bouzar et al. 2024).

Bouzar et al. (2024) drew attention to the psychological impact of using ChatGPT in academic writing. The findings suggest that while the tool can boost students' confidence, there's also a risk of developing dependency over time. This points to the importance of monitoring long-term effects and ensuring that AI use supports skill development rather than replacing it.

Through the previously mentioned studies on the relationship between GPT and academic writing, it can be concluded that the research on the effectiveness of GPT in enhancing academic writing skills still needs further development and investigation. However, initially, the studies agree that GPT can be useful if used with caution and awareness of its risks to human skills. It is also found that GPT is not a substitute for human abilities in academic writing, but rather a tool that helps enhance these skills only. Additionally, reliance on GPT should not be absolute in order to preserve human capabilities from weakening.

1.1.6.The Role of GPT in Formal Tone and Vocabulary.

Shaikh et al. (2023) conducted a usability assessment of ChatGPT for formal English language learning and used a standard questionnaire-based approach to ask participants about their feedback in terms of usefulness and effectiveness of using ChatGPT. According to the results from this study, it is quite promising and states that ChatGPT is very effective to be used in formal English language learning (Shaikh et al., 2023).Usefulness of ChatGPT was highlighted from the participants' responses in the "Usefulness, Satisfaction, and Ease of Use" questionnaire, which shows that ChatGPT is useful for language learning (Shaikh et al., 2023).However, there are several limitations to this study in respect of the fact that this evaluation was conducted by an extremely specific group of university students who study computer science, so their view of the topic can be different from university students who, for example, study English as a second language as their major (Shaikh et al., 2023).

Shaikh et al. (2023) offered useful insights into ChatGPT's potential for formal English learning, particularly in terms of user satisfaction and effectiveness. However, the study's narrow participant pool limits how broadly the results can be applied. This highlights the need for more diverse research that includes students from different academic backgrounds to better understand the tool's effectiveness across various learning contexts.

With the release of the latest version of GPT-4, Fulton (2023) discussed the idea of improving GPT-4's responses by enhancing the quality of words used in the prompts. Fulton (2023) stated that most users rely on simple or common vocabulary, like those used in high school or college. Fulton (2023) wondered if better results could be achieved by using more specialized and precise words, such as those found in professional publications, scientific research, or technical writing. So he conducted a study to explore whether using this specialized vocabulary could improve the quality of GPT-4's responses. The study was based on the hypothesis that the model might have learned to associate high-level words with more complex and professional content. He started his exploration of GPT-4 ability to provide him with 100 common words that have a higher probability to be contained within writing, articles, papers and publications that are professional, technical, high quality, respected, educational, informative and enlightening. According to Fulton (2023), GPT-4 response was as following :

Sure, here are some words that are commonly found in high-quality, professional, educational, and informative writing, articles, papers, and publications:

Table 01

GPT-4 providing 100 academic word

No.	Words	No.	Words	No.	Words	No.	Words
1	Abstract	2	Analysis	3	Argument	4	Assumption
5	Bibliography	6	Case study	7	Citation	8	Conclusion
9	Context	10	Data	11	Debate	12	Definition
13	Discussion	14	Evidence	15	Experiment	16	Findings
17	Framework	18	Hypothesis	19	Implications	20	Introduction
21	Investigation	22	Issue	23	Journal	24	Literature
25	Methodology	26	Objectives	27	Perspective	28	Procedure
29	Publication	30	Qualitative	31	Quantitative	32	Questionnaire
33	Research	34	Results	35	Review	36	Scope
37	Statistics	38	Study	39	Survey	40	Thesis
41	Variables	42	Insight	43	Inference	44	Observations
45	Theory	46	Interpretation	47	Correlation	48	Examination
49	Relevance	50	Inquiry	51	Phenomenon	52	Rationale
53	Proposition	54	Validation	55	Limitations	56	Significance
57	Subjective	58	Objective	59	Elucidation	60	Parameters
61	Paradigm	62	Categorization	63	Synthesis	64	References
65	Editorial	66	Appendix	67	Scrutiny	68	Protocol
69	Replication	70	Discrepancy	71	Anomaly	72	Experimentation
73	Articulation	74	Synopsis	75	Determination	76	Assertion
77	Differentiation	78	Annotation	79	Proportion	80	Manipulation

81	Corroboration	82	Complication	83	Dissection	84	Substantiation
85	Generalization	86	Classification	87	Rectification	88	Extrapolation
89	Deduction	90	Enumeration	91	Exploration	92	Permutation
93	Specification	94	Stipulation	95	Comprehension	96	Interpretation
97	Documentation	98	Elaboration	99	Effective	100	Acquisition

Note. Adopted from Fulton (2023) .

Fulton (2023) did not stop at this point, but he asked GPT-4 to come up with some prompt ideas using these words. Fulton (2023) asked GPT-4 to use the list of words to come up with a unique combination of prompts for an AI language model that would generate a valuable piece of content for a business, whether it is research, strategy, copy generation or a novel new idea that combines two high-level concepts to create a prompt for ChatGPT. Fulton (2023) stated that the answer was as following :

Sure, I can provide several prompts using the list of words you're interested in. Here are ten prompts that you could use:

- "Generate a comprehensive analysis on the latest advancements in digital marketing strategies, and discuss their implications for small and medium enterprises."
- "Create a well-researched, in-depth article on the importance of data-driven decision making in contemporary business management. Include case studies to substantiate your points."
- "Elaborate on the theoretical framework behind customer relationship management (CRM) systems, including a detailed review of existing literature and discussion of potential future developments."
- "Draft an insightful business plan for a startup seeking to leverage artificial intelligence in the retail industry. The plan should include market research, competitor analysis, financial projections, and strategic planning."

- “Articulate the significance of sustainable business practices in the context of corporate social responsibility. Provide evidence-based arguments and draw conclusions about future trends.”

- “Design a detailed methodology for implementing business process automation in a traditional manufacturing company. Discuss potential obstacles and propose solutions.”

- “Create a thorough review of the implications of the Internet of Things (IoT) on supply chain management. Include real-life examples of successful implementations.”

- “Generate an insightful and informative white paper on the effects of blockchain technology on the financial industry. Discuss the current state of affairs and extrapolate on potential future developments.”

- “Present a comprehensive case study on how data analytics can be used to improve customer service in the hospitality industry

- “Develop an engaging and educational tutorial on the use of machine learning algorithms for predicting market trends. Include step-by-step procedures and practical examples.”

The AI can then be used to generate a comprehensive, informed, and insightful piece of content based on the prompt (Fulton, 2023). The assumption is that these words are associated with higher quality content and my hypothesis is that using these words within your prompts will produce better-quality output (Fulton, 2023).However Fulton (2023) stated that he hasn’t done extensive testing, so this is a theory based on his basic understanding of how large language models are trained.

Another study compared the the vocabulary and lexical diversity of ChatGPT and humans when performing the same tasks, in which two datasets containing the answers to different types of questions answered by ChatGPT and humans, and a third dataset in which ChatGPT paraphrases sentences and questions are used, Reviriego et al. (2023) states that The analysis shows that ChatGPT-3.5 tends to use fewer distinct words and lower diversity than humans while ChatGPT-4 has a similar lexical diversity as humans and in some cases even larger. Howover Reviriego et al. (2023) stated that further research is needed to understand how the use of ChatGPT and more broadly generative AI tools will affect the vocabulary and lexical diversity in different types of text and languages.

Martínez et al. (2023) conducted a study to assess how well ChatGPT understands language using a tool called ChatWords. They mentioned that this tool automatically tests how well ChatGPT and other similar natural language processing (NLP) AI tools recognize words from specific vocabularies. They also mentioned that the research included two case studies: one where ChatGPT's knowledge of the Spanish dictionary (from the "Real Academia Española") is tested, and another where it recognizes words from the novel *Don Quixote* by Miguel de Cervantes. According to Martínez et al. (2023), the results show that ChatGPT recognized about 80% of the words from the dictionary and 90% of the words from *Don Quixote*, but sometimes misunderstood the meaning of certain words. The study also discusses the implications of AI's lexical knowledge and suggests future research directions for improving its understanding of language (Martínez et al., 2023).

Both studies emphasize that while ChatGPT shows strong performance in vocabulary use and recognition, there are still limitations compared to human language use. Reviriego et al. (2023) pointed out that lexical diversity improves with newer versions of ChatGPT, while

Martínez et al. (2023) show that even with high word recognition rates, understanding meaning remains a challenge. These findings suggest that although progress is evident, further refinement is needed to fully match human language ability.

1.2. The Importance of Academic vocabulary in Academic Writing Quality

1.2.1. Definitions of Academic Vocabulary

According to Nation (2001), academic vocabulary is often referred to by various terms, including "useful scientific vocabulary, sub-technical vocabulary, semi-technical vocabulary, specialized non-technical lexis, and frame words" (p. 4). Paquot (2010) describes academic vocabulary as "a set of alternatives to refer to those activities that characterize academic work, organize scientific discourse, and organize the rhetoric of academic texts" (p. 28). However, these definitions are broad and do not clearly specify what constitutes academic vocabulary. Baumann (2010) defines academic vocabulary as "the complex process for learners who encounter the words when they read real informational text."(Baumann, 2010, p. 4). Additionally, some authors offer different definitions of academic vocabulary, depending on the source and context. For example, Gottlieb et al. (2006) define academic vocabulary as "utilized to acquire a new or deeper understanding of content related to the core of curriculum areas and communicate that understanding to others. Students must also utilize it to effectively participate in the classroom environment" (p. 7).

To provide clarity, Beck et al. (2013) propose a framework that organizes vocabulary into three tiers. The most important tier consists of fundamental words, such as boy, bicycle, and happy, which are commonly acquired through everyday interactions with family, friends, and teachers and typically require minimal direct instruction.

Smith (2022) stated that defining academic vocabulary can be challenging. A general definition is that it refers to the vocabulary used in academic settings (Smith, 2022). However, the term "academic settings" can be ambiguous—does it include spoken scenarios such as lectures, seminars, and presentations, or is it limited to written formats like essays, articles, and reports? Smith (2022) also notes that most discussions on academic vocabulary tend to prioritize written contexts, often neglecting spoken ones. Additionally, the required academic vocabulary varies depending on the subject area (Smith, 2022). For instance, the terminology used in a science lab report (e.g., apparatus, procedure, errors) differs from that used in social science research (e.g., survey, population, sample), although there are also some overlaps (Smith, 2022).

Musings from the Middle School (2017) described academic vocabulary as terms commonly used in academic discussions and written content. These words frequently appear in questions and assessments across various subjects and are prevalent in standardized tests (Musings from the Middle School, 2017).

1.2.2.Types of academic vocabulary.

Academic vocabulary can be categorized into two types (Beckmann et al., 2012; Nagy & Townsend, 2012):

1.2.2.1.General academic words

- High-frequency words that regularly appear in written texts across various subjects but are not commonly used in conversational language.
- Typically, these words have different meanings depending on the subject in which they are used.

- They are best taught in authentic contexts across multiple subjects to help students understand their varied uses.
- Examples: *distribute*, *identify*, *major*, *network*, *range*, *regulate*, *valid*.

1.2.2.2.Subject-specific (or domain-specific) academic words

- These are words unique and essential to learning individual academic disciplines.
- They typically have a single, specific meaning.
- These words are best taught in a single subject within an authentic context.
- Examples: *polynomial*, *cytoplasm*, *federalism*.

1.2.3.Significance of Academic Vocabulary

Understanding the extent to which academic vocabulary plays an essential role in a student's academic achievement is crucial because the stronger a student's vocabulary skills, the more likely they may succeed. Academic vocabulary is vital to succeeding in an academic career, so it needs to be taught and studied (Nushi 2016). Furthermore, on the importance of vocabulary knowledge, Nation (2010) also claims that learning English vocabulary, especially academic vocabulary, is one of the most essential tasks encountered by English learners. Alternatively, Harmon et al (2005) have emphasized that if students are not familiar with vocabulary in their professions, they do not become masters of their field.

These authors have linked the importance of academic vocabulary to an academic career. However, some other writers think that another aspect of the importance of academic vocabulary is based on academic experience. According to Friedberg et al. (2006), "in order to obtain knowledge through independent reading and participate in meaningful discussion in the classroom, students must master the complex words and phrases that characterize the language of school" (p. 1). The main reason why academic vocabulary is exceedingly vital is that it can be

utilized as an intellectual tool to inspire students' critical thinking, problem solving, and decision making skills (Washburn, 2009) .

The studies highlighted emphasize the critical role academic vocabulary plays in student success. They collectively argue that strong vocabulary skills are crucial for academic achievement, particularly in mastering complex subjects and engaging in critical thinking. The various perspectives presented underline that vocabulary knowledge not only supports academic performance but also fosters intellectual growth and participation in meaningful academic activities. This reinforces the need to prioritize vocabulary development in education.

Academic vocabulary knowledge is widely acknowledged as a vital component of academic reading proficiency (Vacca & Vacca, 1996; Corson, 1997; Biemiller, 1999; Nagy & Townsend, 2012), which is closely tied to academic achievement, economic prospects, and societal well-being (Goldenberg, 2008; Ippolito, Steele, & Samson, 2008; Jacobs, 2008).

Given the extensive scope of academic vocabulary—high school graduates are estimated to know approximately 75,000 words (Snow & Kim, 2007) .Pedagogical word lists remain a crucial tool in educational contexts. These lists serve multiple purposes, including setting vocabulary learning objectives, evaluating vocabulary knowledge and development, analyzing text complexity, adapting reading materials, designing vocabulary learning resources, and integrating vocabulary into academic curricula (Nation & Webb, 2011).

In a study examining the linguistic resources utilized by authors in research articles, it was found that effective authorial stances are more frequently associated with the use of evaluative language patterns in higher-ranked journals, suggesting that rigorous vocabulary directly influences perceived credibility (Alotaibi et al., 2019). Furthermore, the strategic employment

of hedges and boosters plays a significant role in academic discourse; while boosters enhance confidence and assertiveness, hedges allow for nuance and acknowledgment of alternative perspectives, contributing to a balanced argumentation style (Mulyadi AI et al., 2024).

Meltzer J et al. (2008) said that individuals utilizing precise terminology are better equipped to articulate nuances in their arguments, enhancing both clarity and persuasiveness. This linguistic precision becomes especially crucial in fields that require collaboration, where a shared understanding of concepts is vital (Meltzer J et al., 2008). As indicated in academic initiatives promoting adolescent literacy, engaging community groups and families necessitates the use of strategic vocabulary to mobilize support effectively, highlighting the importance of targeted communication in educational contexts (Meltzer J et al., 2008)

The studies mentioned show that using the right academic vocabulary is crucial for writing effectively in academia. Using specific terms helps make arguments clearer and more convincing. This kind of language is important not just for writing, but also in collaborative environments, where clear communication is key to success. Overall, the right vocabulary helps make academic writing more credible and persuasive.

In environments where curriculum reforms are undertaken, such as at X University in China, specific language serves as a bridge between traditional courses and emerging educational needs (Wang et al., 2019). By employing precise vocabulary, educators can navigate challenges while fostering an atmosphere conducive to learning and professional development (Wang et al., 2019) .

In their comprehensive review, Townsend and Kiernan (2015) emphasized the significance of academic vocabulary in facilitating students' comprehension of complex texts and enhancing their writing proficiency. Townsend and Kiernan (2015) argue that a solid academic vocabulary allows students to articulate their ideas more precisely and engage more deeply with scholarly materials.

Similarly, Coxhead (2011) investigated the role of academic vocabulary in writing within specific disciplines. Her research highlights that students who master discipline-specific vocabulary are better equipped to construct well-structured arguments and convey complex concepts effectively. Coxhead (2011) findings support the integration of specialized vocabulary instruction into curriculum design to bolster students' writing capabilities.

These studies really highlight how crucial academic vocabulary is for students' success in understanding complex texts and writing well. Wang et al. (2019) pointed out that precise language helps bridge the gap between traditional learning and new educational needs. Townsend and Kiernan (2015) emphasize that having a strong academic vocabulary makes it easier for students to engage with and understand advanced material. Coxhead (2011) adds that knowing specialized vocabulary in a particular field helps students express their ideas clearly and write stronger arguments. It seems the overall message is clear: focusing on academic vocabulary, especially in specific subjects, is key to improving students' academic skills.

A study by Green and Lambert (2018) explored the relationship between academic vocabulary knowledge and writing quality among university students. Green and Lambert (2018) found a positive correlation between students' vocabulary breadth and the coherence and so-

phistication of their written work. Green and Lambert (2018) recommend that educators implement strategies to expand students' academic vocabulary as a means to enhance writing proficiency.

Green and Lambert (2018) found that students with a broader academic vocabulary tend to produce more coherent and sophisticated writing. They suggest that educators should focus on expanding students' vocabulary as it can directly improve their writing quality.

1.2.4.Learning and Teaching Academic Vocabulary

During the process of learning English, most of learners have to learn new words, also they always encounter general and academic vocabulary when they study subjects which are taught in English language (Khalilova, 2023). Moreover, they would use variety of ways to memorize especially, academic vocabulary, because these words seem more complex to learn (Khalilova, 2023) .

However, they might use irrelevant methods to learn academic vocabulary (Khalilova, 2023).For instance, elementary levels of learners just write unfamiliar words and their translation on the notebooks, but they cannot use them in the oral and written speech properly, and by this way, active vocabulary turns into passive (Khalilova, 2023).

Khalilova (2023) pointed out that learners often struggle with memorizing academic vocabulary, especially when they rely on traditional methods like simple translation. These methods, while common, may not effectively help learners actively engage with and retain the vocabulary in meaningful ways, which can limit their ability to use the words correctly in both written and spoken communication.

Tricia (2021) has suggested that learning academic vocabulary by making sentences, highlighting unfamiliar words, and doing activities, related to these words is considered effective

ways. Besides, at the advanced level, learners might utilize various online tools, especially Google, or traditional dictionaries, to look up unfamiliar academic words (Tricia, 2021).

However, Nushi (2016) has recommended online tools such as "Dictionary.com, Merriam-Webster Online, and AskOfxord.com that can provide a variety of definitions, examples, illustrations, synonyms, antonyms, and collocations during the English class." Most students tend to make mistakes in learning academic vocabulary because of a lack of knowledge about the effective methods of learning vocabulary. In this situation, they might rely on teachers' approaches (Khalilova, 2023).

Researchers have long investigated and debated how to present relevant methods and strategies for both ESL and ELL learners in teaching academic vocabulary (Khalilova, 2023). Because teaching academic vocabulary to advanced students has its own challenges, and the methods we utilize successfully with lower-level learners are not always suitable for upper-intermediate. Besides, in boosting early vocabulary, educators might select irrelevant strategies (Khalilova, 2023).

In teaching academic vocabulary, it is important to pay enough attention to target learners and their background knowledge, level of grade, and also peculiarities (Khalilova, 2023).For instance, to teach academic vocabulary, Jackson (2010) has used direct vocabulary instruction for fifth-to seventh grade English language learners. Because it is vital to teach academic vocabulary directly so that students can understand the vocabulary in its academic context, However, it is insufficient to boost students' vocabulary development (Jackson,2010) . Support students' vocabulary growth by getting them involved in discussions, giving them the chance to read a variety of texts, and raising their awareness of language use in everyday life (Jackson. 2010).

Moreover, Nushi (2016) recommended the Frayer model method to teach vocabulary to ESL students, which is helpful in developing students' vocabulary by providing them with examples and non-examples. Through this method, educators give a variety of definitions of a new word by presenting it from a text book and in their own words (Nushi, 2016).

Furthermore, learners might make sentences by using new words (Nushi, 2016) Alternatively, this method is considered absolutely time consuming and best applied to theoretically proper concepts (Nushi, 2016).

Khalilova (2023) emphasized that teaching academic vocabulary to advanced learners requires a tailored approach, as methods effective for lower-level students may not work well for higher-level learners. It's crucial to consider students' backgrounds, knowledge, and grade levels when choosing strategies. While direct vocabulary instruction, as Jackson (2010) suggests, can be beneficial, it alone may not be sufficient. A more comprehensive approach involving discussions, diverse reading materials, and real-life language awareness is needed. Additionally, methods like the Frayer model (Nushi, 2016) offer structured ways to deepen vocabulary knowledge, although they can be time-consuming and more suited to complex concepts.

Apart from these methods, teachers of young learners should consider how to increase young learners' reading comprehension by teaching vocabulary, which is not only general but also academic vocabulary, and also encourage them to be interested in using these words in oral or written speech (Tricia A. 2021). Yet, the educator needs to choose the proper words to teach them and relevant methods (Tricia A. 2021) .

In teaching academic vocabulary, educators mainly use vocabulary picture cards in order to provide a vital visual aid to support new word learning, and they might consider the peculiarities of young learners (August, 2018). However, Tricia (2021) has claimed that selecting images clearly is a critical process and often challenging step, and without one or two sentences that depict the picture, the connection to academic words is unclear. So that the image should be more likely to illustrate a context that children can relate to. When it comes to teaching academic vocabulary to the ELLs, especially international students who study in the other field, such as mathematics, they would come across many challenges in studying math in English, because of the lack of knowledge of math vocabulary (Hoffert, 2009) . Hence, it causes to misunderstand the theme (Hoffert, 2009). Mostly, educators are required to pay attention ELLs background knowledge to select proper instructions and apps such as Academic Word List (Murrey, 2008).

The focus on selecting appropriate vocabulary and methods, particularly for young learners and ELLs, is a significant point raised in the study. The challenge of aligning images with academic vocabulary, as highlighted by Tricia (2021), requires careful consideration, ensuring that visual aids are contextually relevant and easily relatable for students. Additionally, the mention of ELLs studying complex subjects, such as mathematics, emphasizes the importance of academic vocabulary in helping learners succeed in specialized fields, while also pointing out the need for teachers to tailor their approaches to the students' existing knowledge and background.

1.2.5.Academic Vocabulary Across Disciplines

A comprehensive review by Townsend et al. (2012) emphasizes that general academic vocabulary is critical for students to grasp the concepts associated with academic content across

disciplines. Townsend et al. (2012) highlights the importance of explicit instruction in academic vocabulary to enhance students' reading comprehension and overall academic success.

Coxhead (2000) introduced the Academic Word List (AWL), a compilation of words frequently used across various academic disciplines. Coxhead (2000) emphasizes that students who master these words are better prepared to comprehend academic material and succeed in their studies. Additionally, Snow and Uccelli (2009) argue that academic language, including vocabulary, plays a foundational role in helping students transition from conversational to academic discourse, particularly for English language learners.

A mixed-methods study by Chen and Chung (2020) investigated the English medical vocabulary strategies, needs, and difficulties of Taiwanese medical students. The findings revealed that students often struggle with the vast array of medical terminologies and benefit from targeted vocabulary instruction to improve their proficiency and confidence in medical contexts (Chen & Chung.2020) .

These studies emphasized the pivotal role of academic vocabulary in student success. Townsend et al. (2012) focus on how mastering academic vocabulary enhances reading comprehension and academic performance, while Coxhead (2000) introduces the Academic Word List (AWL), a tool designed to help students understand and engage with academic material across disciplines. Snow and Uccelli (2009) also stress the importance of academic language in bridging the gap between conversational and academic discourse, particularly for English language learners. In a more specialized context, Chen and Chung (2020) highlight the struggles of Taiwanese medical students with medical vocabulary and recommend targeted instruction to address these challenges.

A study by Salager-Meyer (1994) highlighted the challenges faced by non-native English-speaking medical professionals due to the specialized and often dense nature of medical vocabulary. Salager-Meyer (1994) suggests that simplifying complex terminology without losing precision can improve doctor-patient interactions and reduce miscommunication. Furthermore, Fang and Liu (2018) stress that learning medical vocabulary is not merely about memorization; students must understand the nuances of terms like “benign” versus “malignant,” as these distinctions directly impact clinical decisions.

A primer by the New York State Art Teachers Association (2013) discussed the necessity for art educators to incorporate academic language into their instruction. The document outlines strategies for teaching discipline-specific vocabulary, enabling students to articulate their understanding and critiques of art more effectively.

According to a study by Thompson and Hall (2015), art students often face challenges in connecting their intuitive understanding of art with academic language requirements, such as writing artist statements or critiques. Thompson and Hall (2015) suggest incorporating scaffolded vocabulary exercises, where students gradually build their familiarity with terms like "juxtaposition," "aesthetic," and "composition." These strategies not only enhance students’ analytical abilities but also prepare them to communicate effectively in professional art settings (Thompson & Hall.2015) . Similarly, Freedman and Stuhr (2004) argue that academic vocabulary is integral to fostering global and cultural understanding in art education, as it allows students to contextualize and critique art from diverse traditions.

A study by Bhatia (1993) on legal discourse highlights how terms like "precedent," "jurisdiction," and "liability" are deeply embedded in the structure of legal texts and serve to ensure that laws are interpreted consistently. However, legal vocabulary can also create barriers

for non-specialists (Bhatia., 1993). Tiersma (1999) explored how "legalese" often alienates laypersons and advocates for the simplification of legal language to make it more accessible while retaining its exactness. Additionally, the use of academic vocabulary in legal education plays a crucial role in preparing law students to interpret case law, draft legal documents, and engage in courtroom argumentation effectively (Tiersma,1999).

The studies emphasize the necessity of academic vocabulary in specialized fields like art and law. Thompson and Hall (2015) highlight how art students struggle with the language requirements in critiques and artist statements and suggest scaffolded vocabulary exercises. Freedman and Stuhr (2004) focus on the importance of academic vocabulary in art education for fostering understanding across cultures. Bhatia (1993) discusses how legal vocabulary is integral to the consistency of legal interpretation, while Tiersma (1999) advocates for simplifying legal language to make it more accessible to non-experts.

1.2.6. Challenges Faced by Students to Acquire Academic Vocabulary

The acquisition of academic vocabulary presents a significant challenge for students in higher education. This process requires not only the learning of specialized terms but also the ability to use them appropriately in academic contexts. Various factors contribute to these difficulties, including the complexity of academic language and the need for extensive practice to master these terms. Consequently, many students find it challenging to expand their vocabulary to meet the demands of academic writing. This challenge necessitates a deeper understanding of how students approach the development of academic vocabulary and the tools available to support their learning.

Nisrina and Nurueningsih (2022) caried a study in which thirty Universities Muria Kudus second semester students participated in the survey as respondents. A questionnaire was employed as the data collection tool. Nisrina and Nurueningsih (2022) found that learning vocabulary was hampered by a number of factors, including difficulty distinguishing between correct spelling and pronunciation of English words, difficulty honing vocabulary-building skills, difficulty applying vocabulary correctly, and difficulty comprehending connotation. According to Nisrina and Nurueningsih (2022), students utilize a variety of tactics to address the difficulties, including dictionary strategy and memorizing, peer practice, music or English video watching, sharing and discussion with peers and additional individual class.

Urai and Nurnisa (2021) carried out a research study aimed at identifying the challenges that thirty-three West Kalimantan Pesantren (boarding school) students had when acquiring English vocabulary. According to Urai and Nurnisa (2021), these students performed poorly in terms of mastering vocabulary. Questionnaires and conversations with certain students provided the data. The information showed that there were four areas in which the students struggled: spelling, pronunciation of distinctive English sounds, memorization of lengthy words, and comprehension of meanings of unusual words (Urai & Nurnisa, 2021) .

Nisrina and Nurueningsih (2022) highlighted that students encounter vocabulary learning obstacles tied to nuanced language features like connotation and contextual application, suggesting a need for deeper semantic instruction. In contrast, Urai and Nurnisa (2021) emphasize challenges rooted more in foundational aspects such as phonetic recognition and spelling, especially within a boarding school context where exposure may be limited.

In order to identify the types and contributing variables to students' difficulty learning vocabulary, Rohmatillah (2014) conducted a study in which participants in the vocabulary class

during the first semester of the English Education Department at IAIN served as the study's subjects. This research used a qualitative design and incorporated case study elements. Rohmatillah (2014) employed questionnaires and interviews to collect the data. Every data set underwent descriptive analysis. The results demonstrated that the children continued to have issues or challenges when learning language (Rohmatillah,2014). Students encountered a variety of challenges when acquiring language. According to Rohmatillah (2014) students encountered the following kind of challenges: nearly all of them have trouble pronouncing words correctly, one of the reasons why students struggled with learning vocabulary was the multiple grammatical forms of words, known as inflections; another was learning how to write and spell. Furthermore, the students had trouble selecting the right meaning for the terms, and they were still unsure about how to apply the word in the given context (Rohmatillah,2014) . In the final class, students continued to struggle with understanding idiomatic phrases and expressions (Rohmatillah,2014). There were a few things that contributed to students' struggles with vocabulary learning (Rohmatillah.,2014) . The written and spoken forms of English differ; There are a staggering amount of words that students must learn (Rohmatillah,2014). There are limited resources for word information and word knowledge is difficult (Rohmatillah,2014) . Understanding a word entails much more than just knowing its definition from a dictionary (Rohmatillah,2014). Reasons of a lack of comprehension of the word's grammar and the lack of resemblance in sound between the English and the students' native language frequently results in inaccurate pronunciation (Rohmatillah,2014) .

Rohmatillah (2014) identified several challenges that students face in vocabulary acquisition, focusing on difficulties with pronunciation, understanding word forms, and applying words in context. The study underscores the complexity of vocabulary learning, noting that

factors such as the written and spoken forms of English, limited resources, and differences between English and students' native languages contribute to these struggles.

A study conducted by Shah et al. (2022) concentrated on the challenges students have when acquiring new vocabulary. In accordance with the purpose of the study, a qualitative approach was used to collect data. Five participants were interviewed to learn more about the different types of challenges they have when learning new terms. Selected participants were interviewed in a semi-structured manner (Shah et al.,2022). After transcription, the data underwent thematic analysis (Shah et al.,2022). The results showed that the main obstacles to acquiring English vocabulary are the most challenging issues that students encounter, including short-term memory, spelling mistakes, pronunciation, poor reading habits, word length, and proper word usage (Shah et al.,2022). The findings also demonstrated that another contributing element is a lack of consistent practice and a lack of enthusiasm for vocabulary acquisition(Shah et al.,2022). The study offers the following practical tactics in light of these findings: determination, memorization methods, cognitive, and meta-cognitive(Shah et al.,2022).

Shah et al. (2022) identified several key challenges students face in acquiring English vocabulary, such as memory limitations, spelling errors, pronunciation issues, and a lack of consistent practice. Their findings also highlight poor reading habits and insufficient motivation as contributing factors. The study suggests practical strategies, including memorization techniques and cognitive methods, to help overcome these difficulties.

A Research on students' difficulties in learning English vocabulary of Thai learners in Semarang was carried out by Jidapa (2022). This study used a descriptive qualitative design; the instruments were questionnaires and interviews; the data were analyzed descriptively in terms

of percentages; the sample of this study consisted of twelve Thai learners in Semarang who studied English department. According to Jidapa (2022), the results of this research vocabulary show that vocabulary knowledge cannot be separated from language learning and failing to learn vocabulary will be ineffective in the language learning process, the common factor that made students' difficulties in learning vocabulary was students' use of improper technique to learn and the majority of them experienced a lack of emphasis on learning insufficient practice opportunities, a lack of commitment to improve, a lack of passion, complicated language, many forms, learning process obstacles, and environmental factors. Also using a dictionary and making educated guesses about terms based on context, reading books or news articles online, attempting to use recently learned vocabulary in conversation, and selecting the best learning method with a smartphone were the methods employed to overcome the challenges.

The study conducted by Jidapa (2022) offered valuable insights into the difficulties That learners face when acquiring English vocabulary in Semarang. The research highlights several common challenges, such as the use of ineffective learning techniques, insufficient practice, lack of motivation, and the complexity of the language itself. The findings suggest that students often struggle due to environmental factors, limited engagement, and obstacles in the learning process. Despite these challenges, the study also identifies strategies students use to overcome them, such as utilizing dictionaries, making educated guesses based on context, and integrating new vocabulary into conversations. This research emphasizes the need for more effective teaching methods and greater student commitment to vocabulary learning. It also suggests the potential of incorporating modern tools, like smartphones, to enhance learning experiences.

Rezvan et al. (2020) carried out a study titled in which 218 EFL students pursuing English language studies BA, MA, and Ph.D. degrees at an Iranian institution are the sample under investigation. According to Rezvan et al. (2020), the goal was to determine whether there were any notable differences in the vocabulary learning tactics used by students with varying academic backgrounds. In order to do this, the participants responded to Vocabulary Learning Strategies' open-ended and closed-ended questions (Rezvan et al.2020). The results, which were derived from both quantitative and qualitative analysis, showed notable variations in the vocabulary learning tactics used by graduate and undergraduate students Rezvan et al. (2020). However, there was no discernible difference in the vocabulary learning tactics used by Ph.D. and MA students Rezvan et al. (2020) . In fact, examining the various vocabulary acquisition techniques employed by English language learners can highlight individual variations in vocabulary acquisition and motivate EFL instructors and curriculum designers to create resources and exercises that will aid students in expanding their vocabulary Rezvan et al. (2020).

The study by Rezvan et al. (2020) highlighted how vocabulary learning strategies vary among students at different academic levels. It shows that undergraduate students use different methods than graduate students, but there is little difference between MA and Ph.D. students. This suggests that understanding these differences can help improve teaching methods and resources for students to learn vocabulary more effectively.

Conclusion

In conclusion, the emergence of GPT as a language model and its rapid development have led to its widespread global usage, spanning across American, European, Asian, and African regions. Consequently, its use in Algerian universities has become prominent, requiring investigation into its influence on student skills. One of the most important skills is the ability

to use academic vocabulary in academic writing in which previous studies have addressed this topic from different perspectives.

Although several researchers have focused on studying the use of GPT in academic contexts, particularly concerning academic writing, several gaps remain in the research. Firstly the limited focus on academic vocabulary . Previous studies have discussed the use of the model in general aspects of academic writing, such as coherence, grammar, or creativity, but have not specifically focused on its impact on learning and using academic vocabulary. This leaves a gap in understanding how GPT affects this aspect. Second gap is over-reliance on qualitative data, as most studies have relied on qualitative data, which limits the results. There is a need to explore this topic using quantitative data to achieve more reliable study results. Previous studies have not considered other factors related to the development of academic vocabulary proficiency, such as participants'age, gender, and overall proficiency in academic writing.

This study aims to bridge these gaps and enrich knowledge on this topic through more in depth methods, using a comprehensive methodology that aligns with the nature of the research, its objectives, and the connection to previous studies.

Chapter Two: Research Methodology, Data Analysis and Interpretation.

Introduction

This chapter contains the research methodology applied to explore the role of GPT for academic vocabulary development in academic writing . As the use of GPT among university students in academic writing become widespread, and almost no student can do without it, understanding students view points of such language model on their academic vocabulary is crucial. This study aims to identify and analyze students perspectives and experiences through a comprehensive and systematic approach. The chapter begins with a detailed description of the research design, followed by the selection criteria for participants, data collection methods, the analytical procedures used, and concluded by a discussion of the results, implications, limitations of the study and recommendations for future research.

Restating the research questions and hypothesis

This chapter will answer the previously asked questions :

RQ 01: Do students perceive GPT as an effective tool for developing their academic vocabulary?

RQ 02: What potential risks does GPT pose to students' academic language development?

To answer the questions, two hypotheses are presented :

H01: Students perceive GPT as a highly effective tool for developing their academic vocabulary, as it helps them learn academic alternatives and expressions more efficiently and apply them appropriately in their academic writing.

H02: Students who over-rely on GPT might lose their creative skills and own abilities to use academic vocabulary.

2.1. Research methodology

2.1.1. Research Design

Jain (2023) defines research design as a comprehensive plan or framework for conducting a research study. It involves detailing the approaches and methods that will be employed to gather and analyze data to address a research question or test a hypothesis.

The research design of this study used a mixed-method tool, utilizing a questionnaire and semi-structured interview to collect data from students who use GPT in academic writing . This method was selected for its efficiency in collecting data from as much as different participants points of view. The questionnaire is carefully designed to include a mix of closed and open-ended questions, providing both quantitative data for statistical analysis and qualitative insights into students experiences with GPT. The closed-ended questions focus on specific uses, effectiveness, and participants impression on GPT influence on academic vocabulary In academic writing. However, the open-ended questions allow participants to elaborate on their experiences and provide additional context .

Semi-structured interview with a group of students aimed at evaluating the effectiveness of using GPT in improving academic vocabulary in academic writing . The focus will be on exploring the students' experiences and understanding the extent to which this language model enhances the use of academic vocabulary. The semi-structured interview included questions related to how they benefited from GPT in improving academic writing style, the challenges they might face when using the tool.

This design ensures a comprehensive understanding of the overall satisfaction of students on GPT for academic vocabulary development . By systematically collecting and analyzing this data, the study aims to offer valuable insights into the usefulness of GPT in such academic aspect, informing future strategies and interventions to guide students use GPT appropriately.

Research Setting

Research setting encompasses the physical, social, and cultural backdrop within which a research investigation unfolds, encompassing the particular geographical location, temporal context, and social milieu where data collection occurs (Jain, 2023).

The setting for this study is Faculty of Letters and Languages at Echahid Cheikh Laarbi Tebessi University, Tebessa, department of Letters and English Language.

2.1.2.Population and Sample

Population

In a study, a population is the entire group from which a sample is selected for analysis. Accordingly, a population can be defined as any grouping that has a common characteristic (Momoh, 2024).

The population for this study consists of first year master students who study in Language sciences specialty at University of Echahid Cheikh Laarbi Tebessi in English department which is one of the Letters and languages Faculty departments . A social media invitation to participate in the study was sent through a chat group on Instagram platform to all first year

Master students LS with the help of one of our friends that study in the same class and is active in the chatgroup. And to ensure all participants receive the link of the google form questionnaire, we emphasized that those who responded to the message send the link to their classmates that might not be in the chat group.

Sampling

In statistical analysis, sampling is the process by which researchers choose a predetermined number of observations from a larger population. This method enables researchers to use a smaller subset of the population to study a larger group (Tuovila, 2024).

Due to the use of two tools of investigation, two sampling approaches were selected . For the first tool, a questionnaire, a total population sampling approach was employed, as the number of students, 66 students, was manageable, the entire population was included without the need for a sampling process involving all first-year Master's students in Language Sciences, which is a non-probability sampling technique in which all population is selected to participate in the research . In our study the entire population is selected to participate as a sample due to the limited number of participants and ability to engage all of them in the study. This approach is useful in guaranteeing representativeness and offers practicality and efficiency in data collection within the constraints of time and resources. Selection criteria included reaching students who use GPT in academic writing which is mostly related to FMLS students. Participants were contacted via their social media chat groups in which we believe all students are going to follow a shared link to the online questionnaire, and reminder messages were sent to encourage participation. All responses were collected anonymously to ensure privacy and candid responses.

While the semi-structured interview, in which a voluntary sampling was applied,was conducted through phone calls in which 10 self selected participants answered a set of questions related to the topic .This method was chosen because interviews need more time and effort from participants. It was important to make sure that the students who joined were comfortable and interested in sharing their ideas. Voluntary sampling also helped to collect honest and rich answers from students who were truly engaged in the topic.

Through total population and voluntary sampling the study aims to gather insights from all students of FMLS providing valuable perspectives on the effectiveness of implementation of GPT in academic writing at the level of academic vocabulary.

2.1.3. Tools of Investigation

2.1.3.1.Questionnaire

A questionnaire is a research instrument that involves questions to be used in the collection of information from respondents. It is a primary tool used in survey research for collecting data that can be quantified. Questionnaires have certain distinguishing features, such as closed-ended questions that elicit very specific, limited responses, like yes/no or multiple-choice responses, and open-ended questions that allow respondents to answer in their own words in an expansive manner (Mcleod, 2023).

The data collection tools for this study is firstly a questionnaire with 16 closed-ended questions structured using Likert scales. Sample questions may include:

To what extent has GPT improved your use of academic vocabulary in academic writing?

Additionally, a series of 07 open-ended questions invites participants to provide qualitative insights and recommendations regarding strategies for addressing the appropriate use of GPT in academic writing at the level of academic vocabulary. Sample questions may include:

When using GPT, what specific strategy you provide GPT to receive correct academic vocabulary ?

By incorporating both quantitative and qualitative data, the questionnaire ensures a nuanced and multifaceted analysis of the influence of GPT language model on students performance in academic vocabulary .

Sections of the questionnaire:

Section one : **Background Information**

This section collects demographic data and background information about the participants, including their age, gender, and academic writing level . The questionnaire evaluates role of GPT in students academic tasks related to academic writing and It investigates the extent to which GPT can help in academic vocabulary development.

Section two : Impact on Academic Vocabulary

This section focuses on how GPT influences the participants' ability to use academic vocabulary in academic writing. The questions explore the extent of improvement, the effectiveness of GPT in replacing informal words, and the participant's dependency on GPT for generating complex or discipline-specific vocabulary. It also assesses whether GPT contributes to the independent acquisition of academic vocabulary.

Section 3: Challenges and Limitations

This section aims to identify potential challenges or limitations participants face when using GPT for vocabulary improvement. Questions address alignment with academic contexts, over complication of vocabulary, and general usability concerns.

Section 4: Strategies and Practices

This section investigates the strategies participants use to integrate GPT-generated vocabulary into academic writing effectively. It examines whether participants actively revise GPT content, use additional tools or methods for validation .

Section 5: Open-Ended Questions

The final section provides participants with the opportunity to share detailed, qualitative insights about their experiences with GPT. These open-ended questions aim to capture specific benefits, challenges, and suggestions for improvement in GPT's role in academic vocabulary development.

Questionnaire Procedures

The questionnaire was designed based on the literature review to meet the study's specific goals about GPT and academic writing among FMLS students. It was created to ensure the questions were clear and relevant to the topic. The questionnaire was shared online using Google Forms, making it easy for participants to access and complete.

Before starting the main data collection, we confirmed with our supervisor the reliability of the questions and a pilot study was carried out to check how clear and useful the questionnaire was. A small group of 5 students participated in this pilot study. They were invited

through a message (see Appendix A), which explained the purpose of the pilot and asked them to give feedback on the questions. The participants were asked to complete the questionnaire and share their suggestions or comments .

The feedback from the pilot study was very positive. All participants said the questionnaire was clear and easy to understand. This confirmed that the questionnaire was ready and suitable for the main study.

Analysis of Internal Consistency Using Cronbach's Alpha

Table 02

Reliability Statistics

Cronbach's Alpha	N of Items
.74	12

Cronbach's alpha was used to check if the closed-ended questions in the questionnaire were reliable. This test measures how well the questions work together as a group. The result showed a Cronbach's alpha value of 0.74 for the 12 questions. Since this value is higher than the commonly accepted minimum of 0.70, it means the questions have a good level of consistency. Therefore, the questionnaire is reliable for measuring what it is supposed to measure.

2.1.3.2.Semi-structured interview

A semi-structured interview is a qualitative research method that combines elements of both structured and unstructured interviews. It involves a set of predetermined questions, but the interviewer has the flexibility to ask follow-up questions and explore topics in more depth based on the responses of the interviewee. This approach allows for a more conversational flow, while still ensuring that the key areas of interest are covered (Kallio et al, 2016).

In this study, our semi-structured interviews will be conducted over phone calls with 10 participants who have volunteered to be part of the study. These participants represent a sample of the general population. The interviews will include a set of 07 questions designed to uncover their opinions and experiences with using GPT, specifically regarding academic vocabulary. The goal is to gather qualitative data that will help us achieve effective study findings. Examples of the interviews questions are :

- *How did you develop your academic vocabulary before using GPT, and how has that changed since you started using it?*
- *Can you share specific examples of how GPT has helped you develop your Academic vocabulary ?*

Semi-structured Interview Procedures

In this study, phone interviews were chosen as the method of data collection. This is a recognized type of interview commonly used in academic research. Face-to-face interviews were avoided for three main reasons: first, to prevent issues related to finding a suitable time and place for each participant, allowing us to reach them whenever they were available and willing to respond. Second, to save time and collect data as efficiently as possible, avoiding

missed or delayed appointments. Third, we wanted participants to feel as comfortable as possible, and phone interviews offer a more convenient alternative to in-person meetings, which can sometimes be less comfortable .

2.2.Data Analysis and Interpretation of the Findings

After collecting data, the results were analyzed to answer the research questions.

2.2.1. Analysis of the Questionnaire

The total number of participants was expected to be 66; however, only 44 responded to the questionnaire.

2.2.1.1.Analysis and interpretation of the Close-ended Answers

Using the SPSS software, we analyzed the participants answers of the closed ended questions and the following tables and figures show the outcomes of the questions .

Question 01: Student's age

Table 3

Students age

		Frequency	Minimum	Maximum	Mean	Std.Deviation	Percent
Participant's age	21	28	21	23	1.43	.62	63.6%
	22	13					29.5%
	23	3					6.8%
	Total	44					100.0%

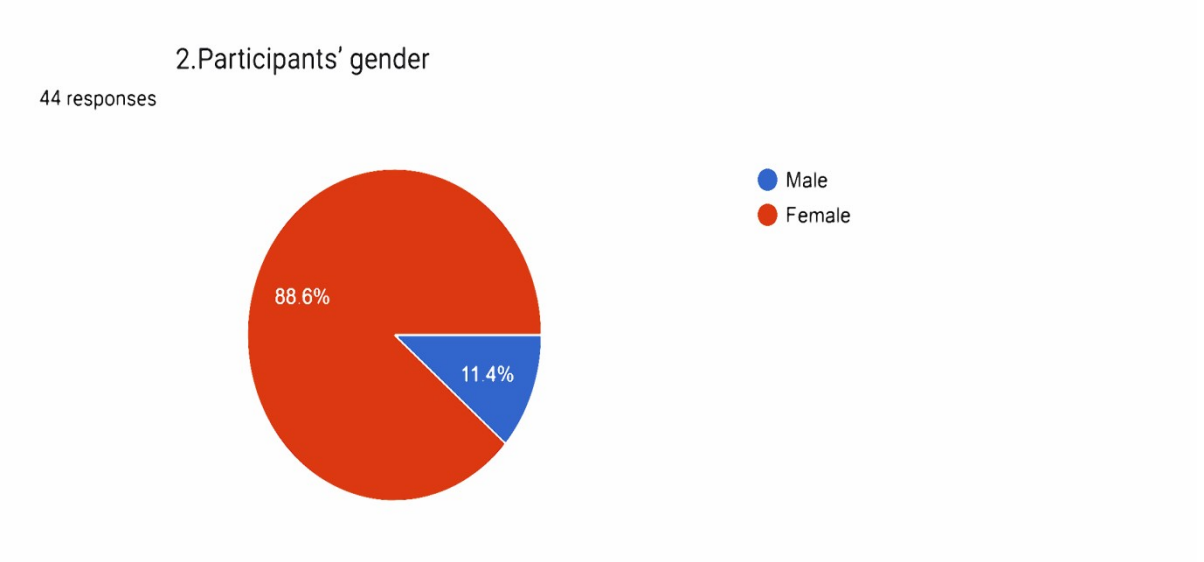
Table 3 shows the age distribution of 44 students out of 66 who answered the questionnaire of the study. Their ages range from 21 to 23 years, with an average age of 22, meaning all students are in their early 20s. The standard deviation is 0.62, which means most students

are within about 0.6 years of the average age. This age range confirms the sample belongs to the youth category. Having similar ages helps ensure the results aren't affected by age differences. Overall, the table gives a clear picture of the students' ages.

Question 02 Students Gender

Figure 3

Students Gender



The majority of students, 88.6%, are female, while 11.4% are male, showing a significant gender imbalance. This difference could limit the range of perspectives and experiences in using GPT. Addressing this gap could help improve GPT's effectiveness in academic settings.

Question 03 : What is your level of proficiency in academic writing ?

Table 4

Level of proficiency in academic writing

		Frequency	Percent
Valid	Beginner	6	13.6%
	Intermediate	36	81.8%
	Advanced	2	4.5%
	Total	44	100.0%

Table 4 shows the respondents' proficiency levels in academic writing, divided into three categories. The majority, 36 individuals (81.8% of the sample), identified as Intermediate. Another group of 6 respondents (13.6%) classified themselves as Beginners. A smaller group of 2 classified themselves as Advanced, indicating a high level of competency. This distribution reveals a range of academic skills within the surveyed group, with most participants at the intermediate level.

Question 04 How often do you use GPT (e.g., ChatGPT, GPT-based tools) for academic writing ?

Table 5

Frequency of GPT use for academic writing.

		Frequency	Percent
Valid	Always	4	9.1%
	Often	33	75.0%
	Sometimes	6	13.6%
	Rarely	1	2.3%
	Total	44	100.0%

The table shows that GPT is used frequently by the majority of respondents in academic writing, with 75.0% using it often and 13.6% using it sometimes, 9.1% use GPT always, and 2.3% use it rarely, suggesting a high level of use. This distribution indicates that GPT is a commonly used tool for most participants, with the highest usage frequency falling in the "Often" category . The relatively low percentage of those who use GPT rarely suggests that the tool is seen as a valuable resource for academic writing among the surveyed group.

Question 05 To what extent has GPT improved your use of academic vocabulary in academic writing ?

Table 6

Extent of improvement in use of academic vocabulary

		Frequency	Percent
Valid	Maximum	4	9.1%
	A lot	29	65.9%
	Moderate	9	20.5%
	Slight	2	4.5%
	Total	44	100.0%

The table shows that most respondents believe that their use of academic vocabulary has improved, with 65.9% reporting a significant improvement and 20.5% noting a moderate improvement, 9.1% noting a maximum improvement and only 4.5% feel their improvement has been slight. This suggests that the majority of participants have experienced a noticeable improvement in their academic vocabulary, with most describing the change as a lot . The small

percentage of those who feel only slight improvement indicates that GPT's impact on vocabulary enhancement varies among individuals.

Question 06 Have you noticed an improvement in your ability to use appropriate academic vocabulary after using GPT?

Table 07

Improvement in ability to use appropriate academic vocabulary

		Frequency	Percent
Valid	Maximum	3	6.8%
	A lot	27	61.4%
	Moderate	14	31.8%
	Total	44	100.0%

The table shows that most respondents report their ability to use appropriate academic vocabulary has improved, with 61.4% reporting a lot of improvement and 31.8% feeling a moderate improvement. Only 6.8% feel their improvement has been maximum. This suggests that GPT has had a positive effect on enhancing academic vocabulary for the majority of participants, with the most common experience being high improvement.

Question 07 Does GPT help you identify and replace informal words with academic alternatives ?

Table 08

GPT help in identifying and replacing informal words with academic alternatives

	Frequency	Percent

Valid	Always	6	13.6%
	Often	34	77.3%
	Sometimes	4	9.1%
	Total	44	100.0%

The table shows that 13.6% participants say that GPT always helps in identifying and replacing informal words with academic alternatives, while 77.3% say it often helps. Only 9.1% say it sometimes helps. This means most students find GPT useful for changing informal language into academic language, with most using it often or always for this purpose.

Question 08 To what extent do you rely on GPT to generate complex or discipline-specific vocabulary?

Table 09

Reliance on GPT to generate complex or discipline-specific vocabulary

		Frequency	Percent
Valid	Maximum	5	11.4%
	A lot	27	61.4%
	Moderate	11	25.0%
	Slight	1	2.3%
	Total	44	100.0%

The table shows that a significant number of respondents rely on GPT to generate complex or discipline-specific vocabulary. More than a half of the respondents, 61.4%, rely on GPT a lot, while 25.0% depend on it moderately, 11.4% depend on it maximum and only 2.3% rely

on it slightly. This suggests that GPT plays a crucial role for most participants in helping them access more advanced or specialized vocabulary, with the majority relying on it to a large or moderate extent to meet their academic needs.

Question 09 Do you feel GPT has influenced your ability to learn and retain academic vocabulary independently?

Table 10

Influence of GPT on ability to learn and retain academic vocabulary

		Frequency	Percent
Valid	Positively	29	65.9%
	Neutral	15	34.1%
	Total	44	100.0%

The table indicates that GPT has a largely positive influence on students' ability to learn and retain academic vocabulary. A significant majority, 65.9%, feel that GPT has a positive impact on their vocabulary development. This suggests that most respondents see GPT as a valuable resource for improving their academic language skills. In contrast, 34.1% of respondents report a neutral effect, indicating that while they use GPT, they may not notice a significant change in their vocabulary learning. Overall, the results show that GPT is generally viewed as a beneficial tool for academic vocabulary learning by most participants.

Question 10 Have you encountered challenges when using GPT to improve academic vocabulary?

Table 11

Challenges encountered when using GPT to improve academic vocabulary

		Frequency	Percent
Valid	Always	1	2.3%
	Often	6	13.6%
	Sometimes	12	27.3%
	Rarely	21	47.7%
	Never	4	9.1%
	Total	44	100.0%

The table shows that most respondents do not face significant challenges when using GPT to improve academic vocabulary. A large majority, 47.7%, report that they rarely encounter challenges, indicating that GPT is generally effective in helping them enhance their vocabulary. A smaller group, 27.3%, experience challenges sometimes, 9.1% never face challenges, while 2.3% see that they always face challenges . This suggests that while most users find GPT useful for improving academic vocabulary without issues, a few individuals may occasionally struggle with its effectiveness or encounter difficulties in specific situations. Overall, the table reflects that GPT is a helpful tool for most respondents, with only a small proportion experiencing difficulties.

Question 11 To what extent do you feel GPT's suggestions for vocabulary align with your academic context or discipline?

Table 12

Alignment of GPT's vocabulary suggestions with academic context

		Frequency	Percent
Valid	Always	3	6.8%

	Often	33	75.0%
	Sometimes	8	18.2%
	Total	44	100.0%

Table 12 shows how well GPT's vocabulary suggestions align with the academic context, indicates that most of the respondents, 75.0%, report that GPT's suggestions align often with the academic context, while 6.8% say they always find the vocabulary suggestions appropriate. Another group, 18.2%, find the suggestions to be suitable sometimes. This indicates that GPT is generally effective in providing relevant vocabulary for academic use, with the majority of respondents finding its suggestions to be frequently or always aligned with academic requirements. However, a small portion of users may encounter instances where the suggestions are less relevant.

Question 12 Do you think GPT overcomplicates your writing with unnecessary or overly sophisticated vocabulary?

Table 13

The extent to which GPT overcomplicate writing with unnecessary vocabulary.

		Frequency	Percent
Valid	Always	1	2.3%
	Often	2	4.5%
	Sometimes	22	50.0%
	Rarely	16	36.4%
	Never	3	6.8%
	Total	44	100.0%

The table shows that half respondents, 50.0%, see that GPT sometimes overcomplicates their writing with unnecessary vocabulary, 36.4% say it rarely does, 6.8% say that it never overcomplicates their writing, 4.5% believe it often overcomplicates their writing and only one case, 2.3%, says it does always . This suggests that for the majority, GPT's vocabulary suggestions are sometimes add unnecessary complexity. This indicates that while GPT is mostly seen as a helpful tool, there are occasional concerns among a half user about the vocabulary suggestions making their writing more complicated than necessary. Overall, the results suggest that GPT is generally in half cases introduces excessive complexity for most participants.

Question 13 What is your primary purpose for using GPT in academic writing ?

Table 14

Primary purpose for using GPT in academic writing

		Frequency	Percent
Valid	Improving vocabulary	5	11.4%
	Generating ideas	37	84.1%
	Correcting grammar and syntax	2	4.5%
	Total	44	100.0%

The table shows that most students use GPT in academic writing to generate ideas, with 84.1% using it for this purpose. The second most common reason is to improve vocabulary, chosen by 11.4% of respondents. A smaller group, 4.5%, use GPT to correct grammar and syntax. This suggests that GPT is mainly used for brainstorming ideas and improving language skills, with fewer people relying on it for grammar corrections.

Question 14 How often do you revise or edit GPT-generated content to fit your writing style or academic tone?

Table 15

Frequency of revising GPT-generated content.

		Frequency	Percent
Valid	Always	3	6.8%
	Often	12	27.3%
	Sometimes	18	40.9%
	Rarely	10	22.7%
	Never	1	2.3%
	Total	32	100.0

Table 15 shows how frequently respondents revise GPT-generated content. A large portion, 22.7%, report that they rarely revise the content generated by GPT, indicating that they find it mostly satisfactory without the need for frequent changes. A larger group, 40.9%, revise it sometimes, suggesting that they occasionally make adjustments to improve the output. 27.3% of respondents revise GPT-generated content often, while 2.3% never revise it at all, indicating that they trust the content as it is and 6.8% of participants always revise it. Overall, this suggests that while many users are satisfied with GPT's output, a significant number still make revisions, with the need for changes varying among individuals.

Question 15 What strategies do you use to ensure that GPT’s vocabulary suggestions align with your academic goals?

Table 16

Strategies used to ensure GPT's vocabulary suggestions align with academic goals

		Frequency	Percent
Valid	Checking academic sources	33	75.0%
	Consulting a dictionary	8	18.2%
	Reviewing academic writing guide-lines	3	6.8%
	Total	44	100.0%

Table 16 shows the strategies respondents use to ensure that GPT's vocabulary suggestions align with their academic goals. The most common strategy, used by 75.0% of respondents, is checking academic sources. This suggests that many users take extra steps to verify the relevance and accuracy of GPT's vocabulary in an academic context. Another 18.2% of respondents consult a dictionary to confirm the appropriateness of the vocabulary suggestions, indicating a reliance on trusted language resources. A smaller group, 6.8%, review academic writing guidelines to ensure the suggestions fit their academic requirements. This indicates that while GPT is a helpful tool, many users take additional steps to ensure that its vocabulary suggestions meet the specific demands of academic writing.

Question 16 How do you balance GPT's influence on vocabulary improvement with your own efforts to develop academic writing skills?

Table 17

Balance of GPT's influence with own efforts to develop formal writing skills

		Frequency	Percent
Valid	Rely heavily on GPT	10	22.7%

Use GPT as a supplement	33	75.0%
Focus primarily on self-improvement	1	2.3%
Total	44	100.0%

Table 17 shows how respondents balance GPT's influence with their own efforts to develop academic writing skills. A significant majority, 75.0%, use GPT as a supplement to their own writing efforts, suggesting that they see it as a helpful tool without fully relying on it. Another group, 22.7%, of respondents rely heavily on GPT, indicating that a smaller group may depend on the tool more than their own writing practice. Meanwhile, 2.3% of respondents focus primarily on self-improvement, emphasizing their personal efforts to enhance their academic writing skills. This indicates that while GPT is seen as a valuable resource by most, many still prioritize their own development in academic writing.

2.2.1.2.Analysis and interpretation of the open-ended answers

To analyze the open-ended answers of the questionnaire, we used deductive content analysis . Elo and Kyngäs (2008) defines deductive content analysis as a qualitative method used to analyze textual data based on pre-existing theories, frameworks, or research questions. Rather than allowing categories to emerge from the data (as in inductive analysis). Deductive content analysis begins with a structured coding framework that guides the categorization and interpretation of data. This approach is particularly useful when the aim is to test or explore specific concepts identified in previous studies or literature.

The effectiveness of GPT in developing academic vocabulary based on students' experiences.

Question 17 : According to your experience with GPT, using GPT for learning and using academic vocabulary for academic writing is a good choice. Do you agree ? Why/ Why not ?

This question is designed to gather students' personal opinions and experiences regarding the usefulness of GPT in developing and using academic vocabulary for academic writing.

Examples of participants answers

Table 18

Students opinions about using GPT for learning and using academic vocabulary for academic writing

Theme	Examples of Students Answers	Interpretation
GPT is Helpful but Don't Fully Depend on It	"Yes, but not fully rely on it because it makes language more sophisticated and AI-directed."	GPT helps, but don't rely on it completely; language becomes too AI-like.
	"Partially, because GPT is helpful, but relying on it too much might weaken my own vocabulary skills."	GPT helps, but it can make your vocabulary weaker if you depend on it too much.
	"I mostly agree, but sometimes GPT suggests words that are too complex or unnatural."	GPT helps, but words can be too hard or sound

Theme	Examples of Students Answers	Interpretation
		strange sometimes.
GPT is Useful for Those with Some Language Level	"I do not really agree with the idea of relying on GPT for academic writing unless one has already a certain level to begin with, not beginners who are still learning, which could affect their conceptions to the academic topics, but rather, buffering grammar and syntax could help for some time but there must be some self-reliance."	GPT is good for people with some English skills; beginners may get confused.
GPT Corrects Mistakes and Improves Vocabulary	"Indeed it is a good choice because it corrects mistakes usually students do in their writings also it shows how errors can be avoided but providing necessary replacements and giving the Essential vocabulary to be used in a specific text."	GPT helps fix mistakes and shows the right vocabulary to use.

The participants' responses to Question 17 reveal a generally positive yet cautious attitude toward using GPT for learning and enhancing academic vocabulary in academic writing. Most participants acknowledge that GPT can be a valuable tool, particularly in correcting mistakes, offering appropriate vocabulary, and strengthening grammar and syntax. However, there is a shared concern about over reliance on the tool, especially for beginners who may lack a foundational understanding of academic writing. Some respondents pointed out that while GPT can elevate the quality of writing, it occasionally suggests overly complex or arti-

ficial language that might not suit the writer's level or style. The idea of maintaining a balance was recurrent, with several participants emphasizing the importance of self-reliance and critical thinking alongside the use of AI. Overall, while GPT is seen as a supportive aid in developing academic language skills, participants stress that it should complement, not replace, the writer's own efforts.

Students' Strategies for Prompting GPT to Generate Academic Vocabulary

Question 18 : When using GPT, what specific strategy you provide GPT to receive correct Academic vocabulary?

Question 18 was designed to investigate the strategies students use when prompting GPT to provide academic vocabulary. This falls under the category of user prompting techniques. The aim was to explore how students formulate their input in order to receive vocabulary that aligns with academic writing standards, as well as to assess their ability to influence the accuracy and formality of GPT's output.

Examples of participants' answers

Table 19

Students' Strategies for Prompting GPT to Provide Accurate Academic Vocabulary

Theme	Examples of Students Answers	Interpretation
Tell GPT to Follow Academic Standards	"I ask GPT to follow academic writing standards like APA."	The student asks GPT to respect academic rules, like APA style, when generating vocabulary.

Theme	Examples of Students Answers	Interpretation
Ask GPT to Improve Vocabulary to Sound More Scholarly	"I give GPT a sentence and ask it to improve the vocabulary to sound more scholarly."	The student gives a sentence and asks GPT to make the vocabulary more academic.
Ask GPT to Replace Casual Words with Formal Academic Alternatives	"I tell GPT to replace common or casual words with formal academic alternatives."	The student asks GPT to replace simple words with more formal academic vocabulary.
Provide Detailed Prompts Including Field and Academic Sources	"I provide specific prompt, the field, with previous readings about the topic from academic sources, but sometimes when it comes to paraphrasing and summarizing, one needs other academic alternatives to do so."	The student gives GPT clear information about the topic, field, and previous readings to receive proper vocabulary.
Give Key Ideas and Ask GPT for Suitable Academic Vocabulary	"Giving it key points or general idea and ask it to classify the specific one that suits my topic."	The student provides key ideas and asks GPT to suggest academic vocabulary that fits.

The responses to Question 18 highlight the thoughtful and strategic ways participants engage with GPT to enhance their academic vocabulary. Many users indicated that they intentionally guide GPT by setting clear instructions such as requesting adherence to academic

writing standards like APA or asking it to replace informal language with more scholarly alternatives. Others take a more hands-on approach by inputting their own sentences and requesting vocabulary improvements to make their writing sound more formal and academic. Some participants go further by including contextual details, such as the academic field and related readings, to ensure GPT's responses are aligned with the topic's requirements. Additionally, strategies like providing key points or general ideas and asking GPT to refine or classify them show a collaborative effort between the user and the tool. These responses demonstrate that users are not passively relying on GPT but are instead using it as an active partner in developing precise and context-appropriate academic language.

Perceived Risks and Negative Effects of GPT on Students' Vocabulary Development

Question 19 : What risks do you believe GPT may cause on students vocabulary?

Question 19 was developed to examine students' perceptions of the possible negative consequences of using GPT on vocabulary acquisition. It belongs to the category of perceived risks and limitations. The question aimed to uncover concerns regarding overreliance, reduced self-effort, or the use of overly sophisticated or contextually inappropriate vocabulary that could affect students' academic writing development.

Examples of participants' answers

Table 20

Perceived Risks of GPT Use on Students' Academic Vocabulary Development

Theme	Examples of Students Answers	Interpretation
Overreliance and Reduced Self-Effort	"It could make students lazy in learning new words on their own."	GPT may make students lazy and stop them from learning

Theme	Examples of Students Answers	Interpretation
		vocabulary by themselves.
	“Students will rely more on it.”	GPT could make students depend too much on it.
GPT Suggests Inappropriate or Uncommon Words	“GPT may suggest words that seem academic but aren’t commonly used in real writing.”	GPT can give words that look academic but are not used in real academic writing.
Wrong Context or Lack of Deep Understanding	“The use of certain vocabulary in wrong contexts or even lack of the deep understanding of vocabulary.”	Students might use words in the wrong context or without understanding them properly.
Weakens Vocabulary Skills and Creativity	“Reduce students' abilities; students will rely more on it; also it decreases their creativity.”	Depending on GPT can weaken vocabulary skills and make students less creative.
Difficulty in Choosing the Right Vocabulary	“Students may not develop the skill to identify which vocabulary fits best in different writing contexts.”	Students may lose the ability to decide which words fit in different writing situations.

The participants’ answers to Question 19 reflect several perceived risks associated with using GPT for vocabulary development. A common concern is that GPT could make students overly dependent, reducing their motivation to actively learn and discover new words on their

own. Participants also pointed out that GPT might suggest words that, while appearing academic, are not always suitable or commonly used in real academic writing, potentially leading to inappropriate language use. Another risk mentioned is the possibility of students using vocabulary incorrectly due to a lack of deep understanding, which could weaken their overall writing quality. Moreover, participants warned that heavy reliance on GPT could diminish students' abilities to critically select appropriate vocabulary and harm their creativity in expressing ideas. Overall, the responses suggest that while GPT can be a helpful tool, its use must be carefully managed to avoid negatively impacting students' independent vocabulary skills and creative development.

Student Dependence on GPT for Academic Vocabulary Learning

Question 20 : If GPT were to stop functioning, how would it affect your method to learn academic vocabulary ?

Question 20 was included to explore students' level of dependence on GPT in learning academic vocabulary. This question is categorized under student reliance on AI tools. The aim was to assess how the absence of GPT might influence students' learning methods, and to identify whether they have alternative strategies or if their vocabulary development would be significantly affected by the tool's unavailability.

Examples of participants' answers

Table 21

Students' Perspectives on the Impact of GPT Unavailability on Their Academic Vocabulary Learning Methods

Theme	Examples of Students Answers	Interpretation
Little or No Effect Other Sources Available	"Somehow, but books are always there."	The student believes GPT helps, but books are always available for vocabulary learning.
	"It won't affect that much because learning academic vocabulary should be from academic works."	GPT is not the main source; academic works are better for learning vocabulary.
Would Use Dictionaries and Other Resources	"I would have to rely more on dictionaries and thesauruses to find academic words."	Without GPT, the student would use dictionaries or thesauruses to learn vocabulary.
Significant Impact GPT Makes It Easier	"Surely it will be affected bcz GPT are more easy than looking for academic vocabulary using academic resources. Maybe works will be more difficult to be done so that assignments will be longitudinal."	The student admits that learning would be harder without GPT; GPT makes the process easier.
More Personal Effort Through Practice	"Without GPT, I'd work harder to internalize vocabulary through repetition and real-world application."	The student would work harder by repeating words and applying them in real situations.

The participants' responses to Question 20 suggest a mixed but generally resilient attitude toward the idea of GPT no longer being available for learning academic vocabulary. Several participants indicated that while GPT provides convenience, its absence would not drastically hinder their learning because traditional resources like books, dictionaries, thesauruses, and academic texts would still be accessible. Some acknowledged that the process might become more time-consuming and challenging, especially since GPT offers quicker access to vocabulary suggestions compared to manually searching through academic sources. However, others viewed the potential disappearance of GPT as an opportunity to adopt deeper learning strategies, such as internalizing vocabulary through repetition and practical use. Overall, while GPT is appreciated for making the learning process easier and faster, participants recognize the importance of maintaining traditional learning methods and believe they could adapt if necessary.

Preference for Alternative AI Tools in Academic Vocabulary Learning

Question 21 :.Do you prefer to use another AI tool rather than GPT for learning academic vocabulary ? Mention it and explain why ?

Question 21 aimed to explore whether students preferred using alternative AI tools instead of GPT for learning academic vocabulary. This question falls within the category of exploring alternative AI tools. The purpose was to identify students' reasons for preferring other tools, their awareness of such alternatives, and whether they perceived these tools as more effective or suitable for vocabulary development than GPT.

Examples of participants' answers

Table 22

Students' Preferences for Alternative AI Tools Over GPT for Learning Academic Vocabulary

Theme	Examples of Students Answers	Interpretation
Yes, Other AI Tools Are Useful or Preferred	"There are multiple AI tools that may help rather than ChatGPT does."	The student believes other AI tools can also help with academic vocabulary.
	"Yes, I prefer Perplexity when it comes to academic writing since it is essentially specialized for research and academia."	The student prefers Perplexity because it focuses more on research and academic content.
	"Yes, like Claude and DeepSeek."	The student prefers using Claude and DeepSeek as alternatives to GPT.
Uses GPT and Other AI Tools Together	"Personally, I use ChatGPT with new uploaded versions and some others like Gemini or Copilot; also they help academically."	The student uses both GPT and other tools like Gemini or Copilot to improve vocabulary.
Prefers Non-AI Sources for Vocabulary	"I sometimes use Google Scholar's word suggestions instead of AI because they come from real research papers."	The student prefers using Google Scholar's vocabulary suggestions, not AI tools, because they come from real research.

The responses to Question 21 show that while many participants value GPT, they are also open to using other AI tools—or even non-AI resources—for learning academic vocabulary. Some participants mentioned preferring tools like Perplexity, which is perceived as more specialized for academic research and writing, while others named Claude, Deepseek, Gemini, and Copilot as alternatives that offer useful academic support. A few participants highlighted that they update to newer versions of GPT or combine it with other AI tools to get more accurate or research-oriented suggestions. Interestingly, one participant noted using Google Scholar's word suggestions, preferring the authenticity of vocabulary directly sourced from real academic papers. Overall, the answers suggest that students are willing to explore different platforms to complement their learning, often seeking tools that provide more academically reliable and contextually appropriate vocabulary than GPT alone.

2.2.1. Analysis of the Semi-structured Interview Answers.

To analyze the semi-structured interviews answers we used deductive content analysis.

Pre-GPT and Post-GPT Academic Vocabulary Development

Question 01: How did you develop your academic vocabulary before using GPT, and how has that changed since you started using it?

Question 01 aimed to explore the changes in students' vocabulary development practices before and after using GPT. It falls under the category of pre-GPT and post-GPT academic vocabulary development. The goal was to understand how students' vocabulary learning methods evolved, what strategies they employed prior to GPT, and how their use of GPT influenced or affected their approach to expanding their academic vocabulary.

Participants answers:

Table 23

Changes in Academic Vocabulary Development Before and After Using GPT

Theme	Students Answer	Interpretation
Before GPT: Reading Books, Articles, and Research	"Before using ChatGPT, I developed my academic vocabulary by reading a lot of books and articles, and by listening to music. It was a bit hard, but with GPT, it has become much easier to access vocabulary and learn it quickly."	The student learned from books and articles but finds vocabulary learning easier now with GPT.
	"Read books, articles, and research papers, but GPT now helps better because it gives more academic vocabulary, and I am able to develop more advanced vocabulary, but passively rather than actively as before."	The student read academic texts before, but GPT made vocabulary learning easier, though more passive.
	"Before GPT, I mostly learned academic words by reading textbooks and articles. Now with GPT, I get new words faster because it shows me many options when I ask for help."	The student used academic reading before but now finds vocabulary learning faster with GPT.
Before GPT: Novels, YouTube, Entertainment	"Before using GPT, I used to read novels, watch YouTube videos, and sometimes read academic articles. GPT did not change my mindset because I only use it to make my	The student learned vocabulary from novels, YouTube, and articles; GPT helps improve vocabulary

Theme	Students Answer	Interpretation
	vocabulary more advanced, as I already have a good vocabulary."	but doesn't change the learning mindset.
	"I used to develop my vocabulary in various ways, including entertaining ones like movies and games, and academic ones like books and dictionaries. There was a gradual change, and I added GPT as a new method for learning vocabulary because it has many advantages, such as ease of use."	The student used entertainment and academic sources before; GPT is now an added tool for ease of learning.
Before GPT: Dictionaries and Apps	"Before using GPT, I used some apps and websites to learn new words. Now, GPT provides me with the words I need easily and quickly."	The student used apps and websites before; GPT now makes finding words faster and easier.
	"I depended a lot on dictionaries before. Now, GPT explains words in simpler ways and gives examples, so I understand and use new words better."	The student relied on dictionaries but now understands words better with GPT's explanations and examples.
Before GPT: Memorization and Guessing	"I used to just memorize vocabulary lists from class, but it was boring. Since using GPT, I can see how the words are used in real sentences, and it makes it easier to	The student memorized vocabulary lists before; GPT shows words in sentences, making learning

Theme	Students Answer	Interpretation
	remember them.”	easier.
Meaning	“Before GPT, I would guess the meaning of words from reading. Now, I directly ask GPT for explanations, and it helps me use academic words more correctly in my writing.”	The student guessed meanings before, but GPT provides clear explanations now.
GPT Makes Vocabulary Learning Easier and Faster	“Before GPT I was not able to use academic vocabulary appropriately and it was so hard to use books or dictionaries but with GPT things become very easy and I am grateful for the emergence of such tool and AI in general.”	The student struggled with vocabulary before; GPT makes learning academic vocabulary much easier.

Participants described using traditional methods to develop their academic vocabulary before GPT, including reading books, articles, and research papers, as well as using dictionaries, apps, and even media like movies and music. These methods often required active effort, such as memorizing vocabulary lists or guessing meanings from context. After starting to use GPT, participants reported that vocabulary learning became faster and easier. GPT provided instant explanations, multiple word choices, and real sentence examples, making new vocabulary easier to understand and use. Some noted a shift from active to more passive learning,

as GPT offered immediate answers rather than requiring independent search. Overall, participants expressed positive feelings towards GPT, appreciating its simplicity, effectiveness, and impact on their academic writing.

Influence of GPT on Academic Vocabulary Usage

Question 02: To what extent do you think using GPT has influenced your ability to use Academic vocabulary in academic writing ?

This question aims to explore the extent of GPT's impact on students' ability to use academic vocabulary effectively in their writing. It assesses whether GPT has led to improvement in students' vocabulary application or if it has had only a marginal effect.

Participants answers:

Table 24

The Influence of GPT on Students' Ability to Use Academic Vocabulary in Academic Writing

Theme	Students Answer	Interpretation
Strong Positive Influence – Vocabulary Improved	"It has had a great impact on my use of academic vocabulary in academic writing because it gives me the exact terms I need and helps me access them quickly."	GPT greatly improved the student's use of academic vocabulary.
	"It helped me advance my vocabulary and focus on specific fields."	GPT helped the student improve vocabulary, especially for specific

Theme	Students Answer	Interpretation
		topics.
	“GPT has made it easier for me to use academic words I’ve learned, so my writing skills have become more formal.”	GPT helped the student use academic words better and made their writing more formal.
	“I believe that ChatGPT makes it easier to acquire new vocabulary and positively influences writing.”	GPT made learning new vocabulary easier and improved writing.
	“It has helped me a lot because I now know which words sound more formal and fit better in essays.”	GPT helped the student choose more formal, appropriate vocabulary for essays.
	“GPT influenced my writing skills quite strongly because I learned new ways to start and connect my ideas with academic words.”	GPT helped the student structure ideas and connect them with academic vocabulary.
Moderate or Limited Influence	“Not to a high extent, but it has influenced my sentence structure and style of writing.”	GPT had some influence, mostly on sentence structure and writing style.
	“I think it influenced me a little because sometimes I just copy the words without fully understanding them.”	GPT had a small influence, but the student admits copying words without full

Theme	Students Answer	Interpretation
		understanding.
	"It influenced me somewhat, but I still need to practice more by myself to really feel confident using the vocabulary."	GPT helped a little, but the student feels they need more personal practice.
Helps Understand Word Use and Meaning	"It helped me learn what is the word used in that specific context and it facilitates learning its meaning."	GPT helped the student understand word meaning and use in the right context.

Participants generally agreed that GPT positively influenced their ability to use academic vocabulary in writing, though the extent of the influence varied. Many reported that GPT helped them access precise academic terms quickly, improve the formality of their writing, and learn how to use words appropriately in specific contexts. Some participants highlighted that GPT strengthened their sentence structure, style, and ability to connect ideas more effectively. However, a few participants noted a more moderate impact, mentioning that while GPT introduced them to new vocabulary. it sometimes led to superficial learning when words were copied without full understanding. Overall, GPT was seen as a useful tool that facilitated vocabulary acquisition and enhanced academic writing, although independent practice was still viewed as necessary for mastering vocabulary use.

Specific Examples of GPT's Influence on Vocabulary Development

Question 03: Can you share specific examples of how GPT has helped you develop your Academic vocabulary ?

This question seeks to gather specific examples of how GPT has helped students develop academic vocabulary, focusing on the practical ways in which GPT contributes to vocabulary learning (e.g., corrections, suggestions, explanations).

Participants answers :

Table 25

Examples of GPT's Role in Enhancing Academic Vocabulary Development

Theme	Students Answer	Interpretation
GPT Suggests Academic Terms for Essays or Homework	*"When I was writing an essay in literature, I didn't have the exact academic terms to use, so I asked GPT to provide them, and it was very helpful."*	GPT provided academic terms during essay writing.
	"I used GPT to write an essay for homework, and I got influenced by the robotic terminology used by GPT. Then I asked it again to correct the sentence structure, but each time, some words did not get changed."	GPT helped with vocabulary during homework, but sometimes words sounded robotic.
	"For example when I need to write an essay in any module, I depend on it to suggest words that I often do not know,	GPT helps suggest academic words during

Theme	Students Answer	Interpretation
	which helps me write and save time instead of taking most of the allowed time searching in dictionaries or asking someone."	essays, saving time.
GPT Helped with Specific Fields (Linguistics, Sociolinguistics, Literature)	*"It helped me in fields like sociolinguistics and literature."*	GPT provided academic vocabulary related to sociolinguistics and literature.
	"For example, it helped me with vocabulary related to linguistics, such as terms related to behavior."	GPT suggested specific vocabulary related to linguistics.
GPT Provides Formal Alternatives for Simple Words	*"One time, I didn't know how to say 'talk about' in a formal way. GPT suggested 'discuss' or 'address,' and now I use them a lot."*	GPT replaced simple expressions with formal academic terms.
	"When I was writing an essay, GPT gave me alternatives like 'moreover' instead of just 'also,' which made my writing sound smarter."	GPT provided advanced linking words to improve writing.
	"In a research paper, GPT helped me replace simple words like 'big' with 'significant' or 'substantial.'"	GPT suggested more formal words for academic writing.

Theme	Students Answer	Interpretation
	“I once asked GPT to make my paragraph more academic, and it changed 'a lot of problems' to 'numerous challenges,' which I learned to use later too.”	GPT improved expressions, making them more academic.
General Vocabulary Improvement Through GPT	*“GPT has helped me use more academic words.”*	GPT generally improved the student’s academic vocabulary.

Participants shared several examples showing how GPT directly supported their academic vocabulary development. Many used GPT when writing essays, research papers, or homework assignments to find more precise or formal vocabulary. Specific examples included replacing simple words like "big" with "significant," suggesting formal alternatives like "discuss" instead of "talk about," and using transition words such as "moreover" to improve writing flow. GPT also helped participants learn subject-specific vocabulary in areas like sociolinguistics, literature, and linguistics. While most experiences were positive, one participant noted that GPT sometimes suggested overly robotic language, requiring further adjustments. Overall, GPT was seen as a practical tool that not only saved time but also introduced learners to more sophisticated academic vocabulary.

Explanations of Suggested Vocabulary by GPT

Question 04: Do you feel that GPT provides enough explanations for the vocabulary it suggests for you ? How ?

This question aims to assess whether GPT provides sufficient explanations for the academic vocabulary it suggests. It explores the clarity, detail, and usefulness of GPT's explanations and whether students feel confident in understanding the vocabulary presented.

Participants answers :

Table 26

Students' Perceptions of GPT's Explanations for Suggested Academic Vocabulary

Theme	Students Answer	Interpretation
Yes, GPT Provides Clear and Helpful Explanations	"I think it provides enough explanations for the vocabulary it suggests because it gives a full and clear explanation of any words I do not understand."	GPT explains unknown words clearly and fully.
	"Yes, GPT explains the meaning and use of words clearly, even in different contexts."	GPT explains word meaning and usage in different situations.
	"Honestly, yes, it does provide sufficient explanations and gives enough information that is also specific to each word. For example, it provides the origin of the word, how it emerged, the fields in which it is used, and its meanings —because sometimes words are used in different contexts with different meanings."	GPT gives detailed explanations, including word origins, meanings, and fields of use.
	"I think yes it does and it is very helpful in this aspect it explains several times and different ways."	GPT explains words in different ways, which helps understanding.
	"Yes, because GPT not only gives the word but also explains what it means and how to use it in a sentence."	GPT explains word meaning and gives sentence examples.
	"Yes, especially when I ask it to give examples. The examples help me see how the word fits in writing."	GPT's examples help the student understand how to use the word in writing.
Sometimes Yes, Sometimes No (Mixed Feelings)	"Sometimes yes, sometimes no. It explains basic words well, but for harder words, I still need to double-check with a dictionary."	GPT explains simple words well, but hard words may still need checking.

Theme	Students Answer	Interpretation
	“Not always. Sometimes GPT gives a lot of words but doesn’t explain them deeply unless I ask more questions.”	GPT sometimes suggests words without deep explanations unless asked further.
No, GPT Doesn’t Always Explain Well	“It is still a bot that doesn't always provide enough explanations. Even with the right prompt, sometimes it suggests non-existent vocabulary.”	GPT doesn’t always explain enough and may suggest fake words.
Not Sure / Doesn’t Focus on Explanations	“I am not sure about that; I just take the vocabulary that I do not know and use it, but I do not rely on it to explain the vocabulary.”	The student uses GPT’s vocabulary but doesn’t rely on its explanations.

Most participants felt that GPT generally provides enough explanations for the vocabulary it suggests. Many mentioned that GPT explains meanings clearly, offers examples, and sometimes even gives information about word origins and contexts. Some participants found the explanations especially helpful when they asked for additional examples. However, a few pointed out limitations, saying GPT sometimes fails to explain more complex words deeply or even suggests non-existent vocabulary. Others admitted they use the suggested words without always checking the explanations carefully. Overall, while GPT’s explanations were seen as helpful and sufficient for most needs, some users still preferred to double-check with other sources when necessary.

Challenges and Limitations in Using GPT for Vocabulary Development

Question 05: What are the challenges or limitations you have experienced when relying on GPT for vocabulary development ?

This question identifies the challenges or limitations students face when relying on GPT for vocabulary development, focusing on potential issues like accuracy, overreliance, appropriateness of suggestions, or lack of depth in explanations.

Participants answers :

Table 27

Challenges and Limitations of Relying on GPT for Vocabulary Development

Theme	Students Answer	Interpretation
Incorrect Vocabulary or Definitions	"Sometimes it fails to give the correct definition or explanation of a word according to the context I intended."	GPT sometimes gives incorrect meanings or definitions depending on the context.
	"When using the wrong prompts, it provides incorrect vocabulary."	If prompts aren't clear, GPT may give wrong vocabulary.
Vocabulary Too Difficult or Not Accurate Without Context	"Sometimes, the words are too difficult or not accurate, especially when I don't provide the context first."	Without clear context, GPT gives words that are too hard or not accurate.
Forgetting Vocabulary or Weak Retention	"I easily forget the vocabulary I learn from GPT, unlike other ordinary sources, and I'm not that dependent on GPT for this purpose. That's why I struggle in understanding some	Vocabulary from GPT is hard to remember compared to other sources.

Theme	Students Answer	Interpretation
	vocabulary.”	
GPT Gives Off-Topic Suggestions or Lacks Human Logic	“The challenges and limitations I faced are that sometimes ChatGPT goes off-topic or shifts to other subjects, or I encounter problems with understanding. In the end, it is not a human, and this could affect the process of acquiring vocabulary related to a specific topic.”	GPT sometimes goes off-topic, making vocabulary learning harder because it’s not human.
No Major Challenges – Depends on User's Skill	“I do not face any clear challenges I think we just need to learn how to use GPT and it will not be that bad.”	The student believes there are no serious problems if GPT is used properly.
Vocabulary Too Advanced or Difficult to Use	“Sometimes GPT suggests words that are too advanced, and I don’t feel confident using them yet.”	GPT suggests words that are too complex for the student to use comfortably.
Overreliance on GPT	“It’s easy to depend too much on GPT and not try to learn words by myself.”	Students may depend on GPT and avoid independent learning.
GPT’s Suggestions Don’t Match Academic Level	“Occasionally, the words GPT suggests don’t match the level of writing my teacher expects.”	Sometimes GPT suggests words that don’t fit the expected

Theme	Students Answer	Interpretation
		academic level.
Lack of Detailed Explanations – Word Confusion	"GPT doesn't always explain the small differences between similar words, and that confuses me."	GPT fails to explain small word differences, leading to confusion.

pants highlighted several challenges and limitations when using GPT for vocabulary development. A common issue was that GPT sometimes provided incorrect, overly advanced, or contextually inappropriate vocabulary, especially when prompts were unclear. Some users mentioned forgetting the vocabulary quickly because learning through GPT felt less engaging compared to traditional methods. Others noted that GPT could go off-topic or fail to explain subtle differences between similar words, leading to confusion. However, a few participants felt that with better prompt usage, these issues could be minimized and did not see major challenges overall.

Comparison of Vocabulary Usage between GPT Users and Non-Users

Question 06: Have you observed any differences in the vocabulary used by students who frequently rely on GPT compared to those who do not ?

This question investigates whether students perceive any differences in the vocabulary used by students who frequently rely on GPT versus those who do not. It looks for insights into whether GPT users have a more sophisticated or different style of vocabulary compared to non-users.

Participants answers:

Table 28

Observed Differences in Academic Vocabulary Usage Between GPT Users and Non-Users

Theme	Students Answer	Interpretation
Yes, GPT Users Have Better or More Advanced Vocabulary	"Yes there is a big difference."	The student notices a clear vocabulary difference between GPT users and non-users.
	"I have seen a lot of development in some students, both in vocabulary and speaking."	The student observed vocabulary improvement among students who use GPT.
	"Yes, honestly, because I find that the vocabulary used by ChatGPT is more advanced and of high quality, which makes the difference clear between an essay written by a regular student and one written by ChatGPT."	GPT users produce more advanced, high-quality vocabulary compared to non-users.
	"Of course students who use GPT perform better than those who do not use it."	GPT users generally perform better in vocabulary use.
	"Yes, students who use GPT seem to have more academic words in their writing."	GPT users tend to use more academic

Theme	Students Answer	Interpretation
		vocabulary in writing.
Non-GPT Users Use Simpler or Common Words	"I think students who don't use GPT use simpler and more common words."	Students who don't use GPT rely on basic, common vocabulary.
GPT Users Use Advanced Words but Not Always Correctly	"Students using GPT sometimes use very advanced words, but not always correctly."	GPT users use advanced words, but they may misuse them.
Dependence on GPT Creates Weakness Without It	"Those who use GPT are good when depending on it, when GPT is allowed, but they fail when they are not allowed to use it, compared to those who do not use it."	GPT users do well when using GPT, but struggle without it.
No Big Difference Noticed – Depends on How You Use Words	"Honestly, I don't notice a big difference because good writing also depends on how you use the words, not just having fancy words."	The student feels good writing depends more on word usage than tool choice.
Other Tools Can Help Too – Not Just GPT	"Somehow, it doesn't matter what source I use because there are plenty of helpful ones, not just GPT."	The student believes vocabulary improvement can come from many tools, not only GPT.

Most participants observed clear differences between students who frequently rely on GPT and those who do not. They noted that GPT users generally show greater development in vocabulary, using more advanced and academic words in their writing. However, some pointed out that while GPT users have stronger vocabulary when allowed to use the tool, they sometimes struggle without it or use advanced words incorrectly. A few participants also mentioned that good writing depends not only on having advanced vocabulary but also on using words properly, suggesting that the difference is not always in the words themselves but in their effective use.

Long-Term Impact of GPT on Academic Language Development

Question 07: How do you think the use of GPT in academic writing might impact your overall academic language development in the long term?

This question aims to explore students' perceptions of the long-term effects of GPT on their overall academic language development, focusing on whether GPT is seen as a sustainable tool that supports language growth or whether it might have negative long-term consequences.

Participants answers :

Table 29

Perceived Long-Term Impact of GPT on Academic Language Development

Theme	Students Answer	Interpretation
Positive Impact if Used	"I think it will improve my academic language in the long term, but I prefer not to rely on it too	GPT can help language

Theme	Students Answer	Interpretation
Carefully	much because I might lose my critical thinking skills and it could also hinder my productivity."	development but overuse might reduce thinking skills.
	"I believe GPT will help me grow and improve my academic writing in the future."	GPT can help improve academic writing over time.
	"If we combine both GPT and active learning, we can benefit from GPT while avoiding simply copying and pasting."	GPT is helpful if mixed with active learning, not just copying.
	"It has a relatively good effect on developing my academic quality through acquiring new vocabulary and improving the efficiency of the acquired vocabulary. I am one of those who encourage the use of ChatGPT, but as I mentioned before, the student should always be aware of what they are learning."	GPT helps improve academic language, but students need to be careful learners.
	"At the long term we need to learn how to mix quick results of GPT and our active learning because over-reliance on it will for sure reduce our brain skills."	GPT works well with active learning, but over-reliance is harmful.
	"I think it will help me build a stronger	GPT can strengthen

Theme	Students Answer	Interpretation
	vocabulary over time if I use it carefully and learn from it.”	vocabulary with careful use.
	“I believe it can really improve my academic language if I keep asking GPT for explanations and examples.”	GPT can boost academic language if used for explanations and examples.
	“In the long term, GPT can help me, but I think I should also read more books and articles to develop my language naturally.”	GPT is helpful, but reading is still important for natural language development.
Negative Impact with Overreliance	“It will not help with academic language because relying on GPT and AI tools makes you dependent on them, rather than developing your own skills.”	Too much GPT use can make students dependent and slow personal skill growth.
	“It might make me lazy if I rely too much on it instead of practicing by myself.”	Overreliance on GPT may cause laziness and reduced personal effort.

Participants expressed mixed opinions about the long-term impact of GPT on their academic language development. Many believed that GPT could be beneficial for improving academic writing and vocabulary, especially when used alongside active learning. Some participants emphasized the importance of balancing GPT use with traditional methods like reading and personal practice to avoid over-reliance, which could hinder critical thinking skills and productivity. A few warned that excessive dependence on GPT might make them lazy or reduce their ability to develop language skills independently. Overall, while GPT was seen as a useful tool, most participants acknowledged the need for a mindful and balanced approach to ensure sustained academic growth.

2.3.Discussion

This section focuses on the discussion of the findings and offers perspectives on the role of GPT in academic vocabulary in academic writing. It aims to provide a deeper insight into the various effects, both positive and negative, on this academic aspect. The section also seeks to explore the challenges and strategies faced by the students, involved in the data collection process, as they interacted with the language model, making use of its advantages while avoiding potential risks that could affect their proficiency in using academic language for completing assignments. Additionally, this section aims to answer the research questions, assess the hypotheses, and connect the results to the existing literature.

Based on the results obtained through the questionnaire and interviews with the participants, it was found that most participants use GPT regularly or at least most of the time. This indicates a strong relationship and reliance on the tool among students, reflecting its significant role in their academic practices. This finding aligns with the work of Boubellouta and Zerroug (2024) who report that doctoral students in Algerian universities increasingly use

ChatGPT and are generally aware of its benefits and drawbacks. They also highlight a gender-based usage difference, with females using it more frequently.

The consistent use of the tool further suggests its effectiveness in various academic applications. Additionally, the data revealed that no participant completely disregards the tool, highlighting its centrality in their approach to academic tasks.

The results also show that the primary purpose of using GPT is ideas generation, or in other words, providing inspiration. This highlights the tool's effectiveness in motivating students' thinking and developing their cognitive abilities. The secondary purpose of its use is to develop vocabulary knowledge, especially academic vocabulary. This indicates that many students rely on GPT to learn and apply academic vocabulary extensively in this linguistic aspect. However, a smaller percentage of students use GPT for learning proper grammar and correcting syntax.

Regarding the extent to which GPT enhances vocabulary development, the results show that 65.9% of participants reported significant improvement in their academic vocabulary, representing a high proportion. This indicates that many users agree on the language model’s effectiveness in enhancing academic vocabulary. However, a smaller group, 20.5%, stated that GPT helped them improve their vocabulary to a moderate extent, suggesting that many participants found the model effective but not fully convincing. Meanwhile, the smallest group, 4.5%, expressed minimal satisfaction with GPT’s role in improving vocabulary. Overall, these findings suggest that GPT has a high ability to enhance academic vocabulary among the participants.

The findings suggest that GPT is a helpful tool for academic writing, but its output is not always perfect. Most respondents indicated that they revise the generated content at least occasionally, showing that while GPT provides a good starting point, many users still need to make adjustments to meet their personal writing style or academic tone. The variation in responses also highlights that users differ in how much they trust GPT's suggestions, with some relying heavily on it and others preferring to make frequent changes. Overall, the results imply that students see GPT as a supportive aid rather than a complete replacement for their own writing efforts. The fact that only a small percentage always revise or never revise the content suggests that GPT's quality is generally good, but human editing remains important to achieve the desired academic standards.

The data analysis also uncovers several challenges and shortcomings in using GPT. One major issue is that the model sometimes suggests vocabulary that does not align with the context of the assignment, highlighting its limitations in understanding and applying contextually appropriate vocabulary . Another drawback is the lack of clear explanations for using academic vocabulary, which can lead students to misuse terms in different contexts, negatively impacting their proficiency in formal language.

Furthermore, students noted occasional stylistic inconsistencies, where GPT would suggest words or phrases that do not match the intended tone or style of the user. These issues emphasize the need for students to critically assess and refine the outputs provided by the tool to ensure accuracy and contextual relevance.

As for the potential risks of using GPT for academic vocabulary, one significant concern is the over-reliance on the model, which may lead to a loss of essential skills and abilities in traditional self-directed learning methods, such as consulting dictionaries and seeking guidance

from teachers. This issue is critical because GPT is not intended to replace human capabilities but rather to serve as a supportive tool, as emphasized by Mondan and Mondan (2023). Additionally, the longevity of GPT is uncertain, and its potential discontinuation underscores the importance of retaining self-reliance and traditional learning strategies.

Another risk of using GPT for academic writing is that it may suggest words that sound academic but are not commonly used in real academic contexts. This can lead to writing that appears unnatural or overly complicated. While GPT is trained on a large amount of text and can generate sophisticated vocabulary, it sometimes selects words that are technically correct but uncommon in academic writing. As a result, students who rely too much on GPT might produce work that sounds less authentic or even confusing to readers. This risk highlights the importance of carefully reviewing and editing GPT-generated content. Students should not accept the suggested vocabulary blindly but instead ensure that the words fit naturally into the context and are appropriate for academic standards. Developing a good sense of academic language remains essential even when using AI tools.

In the academic context, this issue is particularly important, as creativity is vital for critical thinking, reasoning, and problem-solving. Losing these skills due to over-reliance on GPT could result in negative outcomes for overall academic performance.

Despite its challenges, one of the main advantages of using GPT in academic writing is its ability to correct common mistakes that students often make. By identifying errors and offering appropriate replacements, GPT helps learners understand where their writing can be improved. This not only improves the quality of the immediate text but also teaches students how to avoid similar mistakes in the future. Additionally, GPT provides essential vocabulary that fits the context of the writing, which can be especially helpful for students who struggle

to find the right academic words. By suggesting vocabulary that matches the tone and purpose of a specific text, GPT supports the development of a more formal and precise writing style. However, it is important for students to engage actively with these suggestions rather than accepting them passively. Careful review and critical thinking are necessary to ensure that the replacements and vocabulary provided truly fit the intended meaning and level of the work.

Students have also suggested several strategies to optimize their use of GPT for academic vocabulary development. One recommendation is to provide full context to the model instead of asking isolated questions, enabling GPT to focus on suggesting vocabulary that aligns with the context of the assignment. Another strategy involves asking GPT to follow academic and reliable resources instructions, as highlighted by Mondal and Mondal (2023). Furthermore, students advised to ask GPT to replace casual words with academic alternatives when inputting text into GPT, ensuring that the model generates responses based on relevant and appropriate vocabulary types. These strategies collectively help maximize the benefits of GPT while mitigating its potential risks.

Answering Research Questions and affirmation of Hypotheses

Question 1: Do students perceive GPT as an effective tool for developing their academic vocabulary?

It was shown through the discussion of the findings that students believe that GPT has the ability to provide academic vocabulary effectively, meaning that students are able to develop their academic vocabulary through the use of GPT. However, benefiting from it in this aspect requires careful and deliberate use by applying a set of measures, including using it as a sup-

portive tool rather than as a substitute for human abilities, using the context related to academic vocabulary and avoiding posing questions only, and consulting academic and reliable references to verify the accuracy of the vocabulary suggested by GPT for students. Therefore, we accept the hypothesis that students perceive GPT as a highly effective tool for developing their academic vocabulary, as it helps them learn academic alternatives expressions more efficiently and apply them appropriately in their academic writing.

Question 02 : What potential risks does GPT pose to students' academic language development ?

While GPT can be a helpful tool, it also poses several risks to students' development of academic language. One major concern is that it could make students lazy in learning new words independently, as they might rely too heavily on the tool instead of building their own vocabulary. Additionally, GPT may suggest words that sound academic but are not commonly used in real writing, which can make students' work seem unnatural or awkward. There is also the risk of using vocabulary incorrectly or without a deep understanding of its meaning, leading to confusion or inappropriate word choice. Over time, heavy reliance on GPT can reduce students' abilities, particularly their critical thinking and creativity, as they become more dependent on the tool rather than developing their own writing skills. Furthermore, students may not fully develop the important skill of selecting vocabulary that fits best in different writing contexts, which is essential for strong academic writing. Therefore, while GPT can assist in learning, it should be used carefully to avoid limiting students' language growth. Thus, we accept the second hypothesis, which states that students who over rely on GPT might lose their creative skills and own abilities to use academic vocabulary.

2.4. Implications

This study contributes to the knowledge and literature on the topic by focusing on how to effectively use GPT to develop academic vocabulary and how to avoid the risks arising from its improper use, especially in the context of academic writing, which are an important part of the student evaluation criteria in all modules . This is an area that previous studies have lacked, as they focused more on its impact on language in other aspects, such as paragraph writing, summarization, and idea generation. This study is also beneficial for students studying the AWCT module, guiding them in the appropriate use of GPT to improve their academic language, which is crucial for their assessment in both continuous evaluation and exams.

2.5.Limitations

Despite the contributions of this research, limitations must be acknowledged. The limited availability of existing studies on GPT and academic vocabulary posed challenges in contextuali1sing our findings within the broader academic discourse. This gap in literature necessitates further investigation to develop a more comprehensive understanding of GPT influence in this region.

The generalizability of the results is limited by the limited number of participants in the study, and we still need to apply the research on a larger population to be able to generalize the results.

The study focused on a snapshot of students' experiences rather than tracking their progress over an extended period . A longitudinal study could provide more insight into the long-term effects of GPT on vocabulary development.

The study lacked other proper tools of investigations such as experiments and observation, as the application of such tool may help us understand more about the influence of GPT on academic vocabulary.

2.6. Recommendations for future research

- Future studies could look at how GPT affects students over a longer time. This would help us understand if the improvements in vocabulary last or not.
- To make the findings more useful, future research should include more students from different fields of study and academic levels. This would show if GPT works the same way for other specialties
- Future research could compare GPT with other tools like dictionaries or writing apps to see which tool is better for improving vocabulary.
- As GPT is developed over time, future studies could check if improvements in its technology make it more helpful for learning vocabulary and other academic skills.
- Future research could find out if using GPT helps students develop skills in their actual assignments or exams, especially in tasks requiring formal writing.
- Future research could use other tools of investigation such as experiments and observation to assess the effectiveness of the language model in an advanced manner

Conclusion:

In conclusion, this chapter offers insights into the influence of the GPT language model on academic vocabulary among FMLS students. The use of GPT by FMLS students to develop academic vocabulary in academic writing has both positive and negative effects. Therefore,

the wise and mindful use of this language model requires awareness of its risks if used improperly and an understanding of the appropriate strategies for learning academic vocabulary and using it effectively.

General Conclusion

Artificial intelligence tools have become one of the most widely used tools in universities, especially in academic writing . GPT (Generative Pre-trained Transformer) is the first tool that comes to mind when discussing AI. It is a language model that emerged and spread rapidly in the past few years, since 2018. As it has become widely used, this study focused on investigating the impact of GPT on an important aspect of academic study, which is academic vocabulary. The study explored students' perceptions of the model influence on academic vocabulary in academic writing and aimed to explore the positives and negatives of using the model in this area, as well as identifying the challenges and strategies for effectively using it.

This study specifically targets First-Year Master students in English Language Sciences at Echahid Cheikh Larbi Tebessi University in Tebessa. The sample selected is non-random; it consists of all students from the FMLS for the questionnaire and 10 volunteer students for the interview. They were selected because they are studying a module that requires the effective use of academic vocabulary, which is Academic Writing and Critical Thinking (AWCT). Therefore, they helped in gathering reliable information.

The first research question was answered regarding whether students perceive GPT as an effective tool for academic vocabulary development . The results showed that students who use GPT do see the model effective for this purpose . However, this is not absolute, as improper use of the model leads to counterproductive results. Therefore, students need to learn the proper strategies for using GPT to develop academic vocabulary.

The second research question, which focused on possible risks may GPT cause on students academic language was also answered. The results indicated that GPT may reduce students own abilities to learn academic vocabulary , the model may provide uncommon vocabulary despite they seem academic , and using words that are not appropriate in specific conexts .

Conversely, relying entirely on the model makes students constantly dependent on the model's guidance for using academic vocabulary.

The study also identified several limitations, such as the lack of other research tools, inability to generalize the results on all Algerian university students due to the focus on FMLS at tebessa University only, and insufficient literature available to provide deeper insights into the model's role in this specific area. Therefore, recommendations for future research were provided, including using additional research tools, expanding the study's scope and sample, and exploring GPT's role in academic vocabulary as the tool evolves.

In conclusion, GPT is a widely adopted AI language model among university students. Its impact on academic vocabulary usage requires investigation to avoid the consequences of improper use. Our study found that, when used wisely and with specific strategies to mitigate risks, GPT is effective in developing students' academic vocabulary. Additionally, as long as students do not use the model as a replacement for their abilities but as a tool to assist them, and consistently refer to official sources for verifying the correct use of academic vocabulary in context, GPT enables them to independently use academic vocabulary. Thus, like other tools, GPT requires knowledge of proper usage to positively influence students' academic vocabulary in academic writing.

References

August, D., Artzi, L., Barr, C., & Francis, D. (2018). The moderating influence of instructional intensity and word type on the acquisition of academic vocabulary in young English language learners. Reading and Writing, 31(4), 965–989.

Bailey, S. (2014). *Academic writing: A handbook for international students* (4th ed.). Routledge. https://www.routledge.com/Academic-Writing-A-Handbook-for-International-Students/Bailey/p/book/9781138778504

Beck, I. L., McKeown, M. G., & Kucan, L. (2013). *Bringing words to life: Robust vocabulary instruction* (2nd ed.). Guilford Press.

Biemiller, A. (1999). *Language and reading success*. Brookline Books.

Boubellouta, H., & Zerroug, Y. (2024). Graduate students' attitudes toward the use of artificial intelligence applications—ChatGPT as a model: A field study on a sample of PhD students at the Algerian universities. *Psychology and Education, 11*(1). http://psychologyandeducation.net/pae/index.php/pae/article/view/9692/7772

Bouzar, A., El Idrissi, K., & Ghourdou, T. (2024). ChatGPT and academic writing self-efficacy: Unveiling correlations and technological dependency among postgraduate students. *Arab World English Journal, 1*, 225–236. https://awej.org/chatgpt-and-academic-writing-self-efficacy-unveiling-correlations-and-technological-dependency-among-postgraduate-students/

Brown, T. B., Mann, B., Ryder, N., et al. (2020). Language models are few-shot learners. *Advances in Neural Information Processing Systems*, 33, 1877–1901. https://proceedings.neurips.cc/paper/2020/hash/1457c0d6bf4f64e1ec62b0d7eb71e2b9-Abstract.html

Cai, J. (2024, March 3). China urges schools to teach AI as tech war and ChatGPT drive demand for talent. *South China Morning Post.*

https://www.scmp.com/tech/policy/article/3252610/china-urges-schools-teach-ai-tech-war-and-chatgpt-drive-demand-talent

Chen, Y.-H., & Chung, Y.-C. (2020). A mixed-methods study of English vocabulary for medical purposes. *Applied Linguistics Review, 11*(4), 601–628. https://doi.org/10.1515/applirev-2020-0119

Columbia University. (n.d.). Generative AI policy. https://shorturl.at/WQq8j

Corson, D. (1997). The learning and use of academic English words. *Language Learning*, *47*(4), 671–718. https://doi.org/10.1111/0023-8333.00025

Coxhead, A. (2000). A new academic word list. TESOL Quarterly, 34(2), 213–238. https://doi.org/10.2307/3587951

Coxhead, A. (2011). The Academic Word List 10 years on: Research and teaching implications. TESOL Quarterly, 45(2), 355–362.

Deutsche Welle. (2023). Study published in 2023. https://shorturl.at/QjtF7

Fang, X., & Liu, Y. (2018). The significance of English medical vocabulary for clinical communication: A study among EFL learners. Medical Education, 52(5), 489–495. https://doi.org/10.1111/medu.13456

Freedman, K., & Stuhr, P. (2004). Curriculum change for the 21st century: Visual culture in art education. Studies in Art Education, 44(2), 127–141. https://doi.org/10.2307/1321047

Fulton, M. (2023). High-level vocabulary words to improve ChatGPT responses. OpenAI Community. https://community.openai.com/t/high-level-vocabulary-words-to-improve-chatgpt-responses/259766

Garrel Von, J., & Mayer, J. (2023). Artificial intelligence in studies—Use of ChatGPT and AI-based tools among students in Germany. Humanities and Social Sciences Communications, 10, 799. https://doi.org/10.1057/s41599-023-02304-7

Garcia, G. E. (1991). Factors influencing the English reading test performance of Spanish-speaking Hispanic children. *Reading Research Quarterly*, *26*(4), 371–392. https://doi.org/10.2307/747894

Ghounane, N., Rahmani, A., & Al-Zubaidi, K. (2024). Exploring Algerian EFL Master's students' attitudes toward AI-giarism. Indonesian Journal of Social Science Research, 5(2), 444-459. https://doi.org/10.11594/ijssr.05.02.07

Goldenberg, C. (2008). Teaching English language learners: What the research does—and does not—say. *American Educator*, *32*(2), 8–23.

Green, C., & Lambert, C. (2018). Advancing academic literacy through English for Academic Purposes: Content-based instruction in a Hong Kong secondary school. Journal of English for Academic Purposes, 35, 1–14.

Harvard University. (n.d.). Guidelines for using ChatGPT and other generative AI tools at Harvard. https://shorturl.at/DzwGS

Hasanein, A., & Sobaih, A. E. (2023). Drivers and consequences of ChatGPT use in higher education: Key stakeholder perspectives. *European Journal of Investigation in Health, Psychology and Education, 13*(11), 2599–2614. https://doi.org/10.3390/ejihpe13110181.

Huitt, W. (1998). Critical thinking: An overview. Educational Psychology Interactive, 3(6), 34-50. https://bit.ly/4gRI8Cj

Ippolito, J., Steele, J. L., & Samson, J. F. (2008). *Adolescent literacy*. Harvard Education Press.

Jacobs, V. A. (2008). *Adolescent literacy: Putting the crisis in context*. Harvard Education Press.

Jidapa, M. (2022). Students' difficulties in learning English vocabulary of Thai learners in Semarang (PhD thesis). Muhammadiyah University, Semarang, Indonesia. Available at: http://repository.unimus.ac.id

Martínez, G., Conde, J., Reviriego, P., Merino-Gómez, E., Hernández, J. A., & Lombardi, F. (2023). How many words does ChatGPT know? The answer is ChatWords. arXiv preprint arXiv:2309.16777. https://arxiv.org/pdf/2309.16777

McCarthy, M., & O'Dell, F. (2008). Academic Vocabulary in Use. Cambridge University Press

Mehdaoui, A., & Bessaid, A. (2024). Exploring EFL teachers' perceptions of students' use of ChatGPT: Case of the English Department at Ibn Khaldoun University of Tiaret, Algeria. Linguistic and Philosophical Investigations, 1429–1444. [PDF document]. http://bit.ly/3Hdmzzv

Mondal, H., & Mondal, S. (2023). ChatGPT in academic writing: Maximizing its benefits and minimizing the risks. Indian Journal of Ophthalmology, 71(12), 3600–3606. https://doi.org/10.4103/IJO.IJO_718_2

Nagy, W. E., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly*, *47*(1), 91–108. https://doi.org/10.1002/RRQ.011

Nation, I. S. P., & Webb, S. (2011). *Researching and analyzing vocabulary*. Heinle Cengage Learning.

New York. (n.d.). Frequently asked questions about teaching and AI https://shorturl.at/O4ETx

OpenAI. (2020). GPT-3: An autoregressive language model.https://openai.com/research/gpt-3

OpenAI. (2023). GPT-4 technical report. arXiv. https://arxiv.org/pdf/2303.08774

OpenAI. (2023). OpenAI official page. https://www.openai.com

Radford, A., Narasimhan, K., Salimans, T., & Sutskever, I. (2018). Improving language understanding by generative pre-training. *OpenAI.*

https://openai.com/research/language-unsupervised

Radford, A., Wu, J., Amodei, D., & Sutskever, I. (2019). Language models are unsupervised multitask learners. OpenAI Blog. https://openai.com/research/language-models-are-unsupervised-multitask-learners

Reviriego, P., Conde, J., Merino-Gómez, E., Martínez, G., & Hernández, J. A. (2023). Playing with words: Comparing the vocabulary and lexical richness of ChatGPT and humans. arXiv preprint arXiv:2308.07462. https://arxiv.org/pdf/2308.07462

Shaikh, S., Yayilgan, S. Y., Klimova, B., & Pikhart, M. (2023). Assessing the usability of ChatGPT for formal English language learning. European Journal of Investigation in Health, Psychology and Education, 13(9), 1937-1960. https://shorturl.at/Jynnz

Snow, C. E., & Kim, Y. S. G. (2007). Large problem spaces: The challenge of vocabulary for English language learners. In R. K. Wagner, A. E. Muse, & K. R. Tannenbaum (Eds.), *Vocabulary acquisition: Implications for reading comprehension* (pp. 123–139). Guilford Press.

Tamson, I. A. A. (2024, May 31). *How institutions can react to the growing usage of ChatGPT among Nigerian students*. DI Insider Life. https://shorturl.at/fqwQd

Tarisayi, K. S. (2024). ChatGPT use in universities in South Africa through a socio-technical lens. *Cogent Education, 11*(1). https://doi.org/10.1080/2331186X.2023.2295654

Tiersma, P. M. (1999). Legal language. University of Chicago Press.

Townsend, D., Filippini, A., Collins, P., & Biancarosa, G. (2012). A review of the literature on teaching academic English to English learners. Review of Educational Research, 82(4), 446–482. https://doi.org/10.3102/0034654314532695

Townsend, D., & Kiernan, D. (2015). Selecting academic vocabulary words worth learning. The Reading Teacher, 69(1), 113–118.

Urai, S., & Nurnisa, N. (2021). Students' difficulties in learning vocabulary. English Community Journal, 5(1), 46–53.

University of California. (2023). Is ChatGPT a threat to education ? University of California. https://bit.ly/4iPzkih

Vacca, R. T., & Vacca, J. A. L. (1996). *Content area reading: Literacy and learning across the curriculum* (5th ed.). HarperCollins College Publishers.

Wang, Y., Wang, J., & Wang, L. (2019). Trialing project-based learning in a new EAP ESP course: A collaborative reflective practice of three college English teachers. Available at: https://core.ac.uk/download/287723764.pdf

Wilson, J. R. (2022). Academic writing. https://www.academicwritingresources.com

Résumé

Ce mémoire examine le rôle de GPT en tant que modèle linguistique dans le développement du vocabulaire académique en expression écrite, en se concentrant sur les étudiants en première année de Master en Sciences du Langage à l'Université de Tébessa. L'étude vise à fournir une compréhension approfondie de l'efficacité du modèle sur les performances des étudiants dans l'apprentissage et l'utilisation du vocabulaire académique. La recherche a utilisé une méthode de collecte de données mixtes, comprenant un questionnaire détaillé et des entretiens semi-structurés. Notre étude a impliqué tous les étudiants de la filière FMLS. La méthodologie présente les résultats du questionnaire et des entretiens et évalue le rôle du modèle. Des statistiques descriptives ont été utilisées pour répondre aux questions de recherche, complétées par une analyse qualitative. L'étude cherche à déterminer si GPT peut être considéré comme un outil efficace pour le développement du vocabulaire académique. La variable indépendante est l'utilisation de la technologie GPT, tandis que la variable dépendante est le développement du vocabulaire académique. Les principaux axes de recherche comprennent le rôle de GPT dans l'acquisition et l'utilisation appropriée du vocabulaire académique, ainsi que son potentiel à favoriser ou à freiner ce développement. Les résultats révèlent que les étudiants perçoivent GPT comme un outil efficace pour l'enrichissement du vocabulaire académique, à condition qu'il soit utilisé de manière réfléchie. Toutefois, l'étude a également identifié certains inconvénients, tels qu'une dépendance excessive à l'outil, pouvant freiner le développement autonome du vocabulaire académique. Malgré ces limites, la recherche met en lumière le potentiel de GPT en tant qu'outil d'accompagnement pour soutenir la langue académique. Les participants ont souligné l'importance d'une mise en œuvre encadrée, avec des instructions claires, afin de concilier les avantages de GPT avec les méthodes d'apprentissage traditionnelles.

Mots-clés : GPT, IA, académique, vocabulaire, modèle

ملخص

تتناول هذه الأطروحة دور نموذج اللغة "جي بي تي" (GPT) في تنمية المفردات الأكاديمية في الكتابة الأكاديمية، مع التركيز على طلبة السنة الأولى ماستر في علوم اللغة بجامعة تبسة. تهدف الدراسة إلى تقديم رؤى شاملة حول فعالية هذا النموذج في أداء الطلبة في تعلم واستخدام المفردات الأكاديمية. اعتمد البحث على منهج جمع بيانات مختلط، من خلال استبيان مفصل ومقابلات شبه مهيكلة. شارك في الدراسة جميع طلبة شعبة FMLS. تتضمن المنهجية عرضًا لنتائج الاستبيان والمقابلات وتقييماً لدور نموذج GPT. وقد تم استخدام الإحصائيات الوصفية لمعالجة أسئلة البحث، إلى جانب التحليل النوعي. وتهدف الدراسة إلى معرفة ما إذا كان يمكن اعتبار GPT أداة فعالة في تنمية المفردات الأكاديمية. المتغير المستقل في الدراسة هو استخدام تقنية GPT، بينما المتغير التابع هو تنمية المفردات الأكاديمية. تشمل محاور التركيز الرئيسية دور GPT في اكتساب المفردات الأكاديمية واستخدامها بشكل مناسب، إضافة إلى مدى قدرته على تعزيز أو عرقلة تطويرها. أظهرت النتائج أن الطلبة ينظرون إلى GPT كأداة فعالة في تحسين المفردات الأكاديمية، بشرط استخدامها بوعي. ومع ذلك، كشفت الدراسة عن بعض السلبيات، مثل الاعتماد المفرط على الأداة، مما قد يعيق تطوير المفردات الأكاديمية بشكل مستقل. وعلى الرغم من هذه التحديات، تسلط الدراسة الضوء على إمكانيات GPT كأداة داعمة في تنمية اللغة الأكاديمية. وقد شدد المشاركون على أهمية التطبيق الموجه، مع تعليمات واضحة لتحقيق توازن بين فوائد GPT وأساليب التعلم التقليدية.

الكلمات المفتاحية: GPT، الذكاء الاصطناعي، أكاديمي، المفردات، النموذج

Appendices

Appendix A

Piloting the Questionnaire:

Piloting Message:

Good morning, we hope that you are all doing great. Attached is a link to a questionnaire about the influence of GPT on academic vocabulary . Would you spend some time to complete the questionnaire and provide feedback on clarity and relevance. Your comments are welcome. You can send your feedback to my email .Thank you.

Appendix B

The Questionnaire

HELLO ! Dear mates we invite you to help us in our dissertation through answering this questionnaire that is designed to explore your perspectives, experiences and points of view about the use of GPT for academic vocabulary development in your academic writing. Be aware that we will not take any of your personal information and your answers will be anonymously collected, feel free to answer honestly .

THANK YOU FOR YOUR TIME

Section One : Background Information

1.Participants' age: …….

2.Participants' gender:

• Male

• Female

3.What is your level of proficiency in academic writing .

• Beginner

• Intermediate

• Advanced

• Expert

4.How often do you use GPT (e.g., ChatGPT, GPT-based tools) for academic writing .

• Always

• Often

• Sometimes

• Rarely

• Never

Section 2: Impact on Academic Vocabulary

5.To what extent has GPT improved your use of Academic vocabulary in academic writing ?

• Maximum

• A lot

• Moderate

• Slight

• None

6.Have you noticed an improvement in your ability to use appropriate Academic vocabulary after using GPT?

• Maximum

• A lot

• Moderate

• A little

• No

7.Does GPT help you identify and replace informal words with academic alternatives?

• Always

• Often

• Sometimes

• Rarely

8. To what extent do you rely on GPT to generate complex or discipline-specific vocabulary?

Maximum

- A lot
- Moderate
- Slight
- None

9. Do you feel GPT has influenced your ability to learn and retain Academic vocabulary independently?

- Positively
- Neutral
- Negatively

Section 3: Challenges and Limitations

10. Have you encountered challenges when using GPT to improve Academic vocabulary?

- Always
- Often
- Sometimes
- Rarely
- Never

11. To what extent do you feel GPT's suggestions for vocabulary align with your academic context or discipline?

- Always
- Often

- Sometimes
- Rarely
- Never

12. Do you think GPT overcomplicates your writing with unnecessary or overly sophisticated vocabulary?

- Always
- Often
- Sometimes
- Rarely
- Never

Section 4: Strategies and Practices

13.What is your primary purpose for using GPT in academic writing ?

• Improving vocabulary

• Generating ideas

• Correcting grammar and syntax

• Other (please specify): _____

14.How often do you revise or edit GPT-generated content to fit your writing style or academic tone?

• Always

• Often

• Sometimes

• Rarely

• Never

15.What strategies do you use to ensure that GPT's vocabulary suggestions align with your academic goals?

• Checking academic sources

• Consulting a dictionary

• Reviewing academic writing guidelines

• Other (please specify): _____

16.How do you balance GPT's influence on vocabulary improvement with your own efforts to develop Academic writing skills?

• Rely heavily on GPT

• Use GPT as a supplement

• Focus primarily on self-improvement

Section 5: Open-Ended Questions

1.According to your experience with GPT, using GPT for learning and using academic vocabulary for academic writing is a good choice. Do you agree ? Why/ Why not

2. When using GPT, what specific strategy you provide GPT to receive correct Academic vocabulary?

3. What risks do you believe GPT may cause on students vocabulary?

4.If GPT were to stop functioning, how would it affect your method to learn Academic vocabulary ?

5.Do you prefer to use another AI tool rather than GPT for learning academic vocabulary ? Mention it and explain why ?

Appendix C

Interview Questions

HELLO !

Dear mates .we hope that you are doing well. We are conducting a study on the influence of GPT on students' academic vocabulary in academic writing and would like to invite you to participate in an interview. Your insights and experiences will be valuable in understanding how GPT impacts academic vocabulary . The interview will take approximately 20 minutes via phone calls and will focus on your experiences using GPT for academic vocabulary development. Your responses will remain confidential and will be used solely for research purposes. If you are interested in participating or have any questions, please let us know at your earliest convenience. Your contribution would be greatly appreciated! Thank you .

The interview questions

1.How did you develop your academic vocabulary before using GPT, and how has that changed since you started using it?

2.To what extent do you think using GPT has influenced your ability to use Academic vocabulary in academic writing ?

3.Can you share specific examples of how GPT has helped you develop your Academic vocabulary ?

4.Do you feel that GPT provides enough explanations for the vocabulary it suggests for you ? How ?

5. What are the challenges or limitations you have experienced when relying on GPT for vocabulary development ?

6.Have you observed any differences in the vocabulary used by students who frequently rely on GPT compared to those who do not?

7. How do you think the use of GPT in academic writing might impact your overall academic language development in the long term?