



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Chadli Bendjedid El-Tarf
Faculty of Letters and Languages
Department of English

***Optimizing the English Language via AI -Based Tools among
University Students
A Case Study of Second Year EFL Students at Chadli Bendjedid
University -EL Tarf-***

Dissertation submitted to the Department of English in Partial Fulfillment of the Requirement
for the Master Degree in Didactique de l'Anglais.

Submitted by:

Nada Gherabi & Hind Khelil

Supervised by:

Dr. Zouleykha Belabbes

Board of Examiners

President: Ms.Assia Berzane	MAA	University of Chadli Bendjedid El-Tarf
Supervisor: Dr. Zouleykha Belabbes	MCA	University of Chadli Bendjedid El-Tarf
Examiner: Mr. Amine Medjabra	MAA	University of Chadli Bendjedid El-Tarf

Academic Year

2023/2024

Declaration

This research work is conducted by us; Nada Gherabi and Hind Khelil and we kindly certify that this dissertation which we have done for the sake of leading to award of Master in Didactique de l'Anglais is the consequence of our own efforts and it was not taken from other sources.

Students' name: Hind Khelil and Nada Gherabi

Signed:

Date: / /

Dedication

In the name of ALLAH, the most Gracious, most Merciful.

We thank ALLAH for blessings given to us to complete this work

This work is dedicated to:

Our dear families in general and to our parents and sisters specifically:

“Hadjer , Nour , Manel , Anfel ,and Hibat Al Rahmane”.

We also dedicate this dissertation to OURSELVES because we were not only researchers, but also best friends and sisters without forgetting our beloved friends Amina and Maria.

Acknowledgments

First of all, we would like to thank Allah for helping and giving us the power to finish this dissertation.

A special thank to our dear supervisor Dr.Zouleykha Belabbes for her support as well as her hard work while supervising us despite her busy schedule.

We also thank the members of the jury for devoting their time to deal with our work and we kindly accept all of their comments and constructive critics.

At the end, we want to acknowledge all the teachers of the English Department at El Tarf University, our dear peers in Master two and also Second year students at Chadli Bendjedid University for their collaboration.

Abstract

The advent of advanced technology, particularly Artificial Intelligence (AI), has significantly impacted the educational system by serving as a facilitator, corrector, assessor, translator, and monitor. AI is integrated into applications that support students in their learning processes, such as Duolingo, Cake, Reverso, Chatbots, and AI-powered Snapchat, with usage tailored to learners' needs. This shift from traditional study methods to AI tools aims to create a more conducive learning environment for both students and teachers, thereby enhancing the quality of education. To investigate this transformation, researchers employed a descriptive method and collected data through a questionnaire distributed to students. The study involved 50 second-year EFL students from Chadli Ben Djedid El-Tarf University, enrolled in the 2023/2024 academic year. The results revealed that students experienced improvements in their English proficiency after using AI-based tools. Additionally, AI tools helped students build confidence, reduce anxiety, and overcome psychological barriers such as fear of judgment, shyness, and social phobia. However, some teachers expressed resistance to this new technology, citing concerns over its effectiveness and the potential reduction in traditional learning skills. Some recommendations were presented to maximize the benefits of AI in education while addressing the challenges and concerns identified in the study.

Key words: New technologies, AI-based tools, EFL students, optimization, educational system, perceptions.

ملخص

لقد أثر ظهور التكنولوجيا المتقدمة، لا سيما الذكاء الاصطناعي (AI)، بشكل كبير على النظام التعليمي من خلال العمل كمسهل، مصحح، مقيم، مترجم، ومراقب حيث يتم دمج الذكاء الاصطناعي في التطبيقات التي تدعم الطلاب في عمليات تعلمهم، مثل دولينجو، كيك، ريفيرسو، شات بوتس، وسناب شات المدعوم بالذكاء الاصطناعي، مع استخدام يتناسب مع احتياجات المتعلمين. يهدف هذا التحول من طرق الدراسة التقليدية إلى أدوات الذكاء الاصطناعي إلى خلق بيئة تعليمية أكثر ملاءمة لكل من الطلاب والمعلمين، مما يعزز جودة التعليم. للتحقيق في هذا التحول، استخدم الباحثون طريقة وصفية وجمعوا البيانات من خلال استبيان موزع على الطلاب. شملت الدراسة 50 طالبًا في السنة الثانية من قسم اللغة الإنجليزية كلغة أجنبية في جامعة شاذلي بن جديد الطارف، المسجلين في العام الدراسي 2024/2023. أظهرت النتائج أن الطلاب شهدوا تحسنًا في إجادتهم للغة الإنجليزية بعد استخدام الأدوات القائمة على الذكاء الاصطناعي وعلى بناء الثقة، وتقليل القلق، والتغلب على الحواجز النفسية مثل الخوف من الحكم، والخجل، والرهاب الاجتماعي. ولكن أعرب بعض الأساتذة عن مقاومة وسائل التكنولوجيا الجديدة، مشيرين إلى مخاوف بشأن فعاليتها وإمكانية تقليل المهارات التقليدية في التعلم حيث تم تقديم بعض التوصيات لتعزيز فوائد الذكاء الاصطناعي في التعليم مع معالجة التحديات والمخاوف التي تم تحديدها في الدراسة.

الكلمات المفتاحية: التكنولوجيا الجديدة، الأدوات القائمة على الذكاء الاصطناعي، طلاب اللغة الإنجليزية كلغة أجنبية، التحسين، النظام التعليمي، التصورات.

Table of contents

Declaration	i
Dedication	ii
Acknowledgements	iii
Abstract	iv
Abstract in Arabic.....	v
Table of Contents	vi
List of Acronyms and Abbreviation	viii
List of Tables	ix
List of Figures	x
General Introduction.....	01
1.Statement of the Problem.....	02
2. Aims of the Study.....	02
3. Research Questions	02
4. Research Hypotheses.....	02
5. Significance of the Study	03
6. Research Design.....	03
7.Organization of the Study.....	03
8. Limitation of the Study.....	04
Chapter One: AI-based Tools and English Language Learning	
Introduction.....	05
1.1 English Language Learning Optimization and Technology.....	05

1.1.1 Definition of Optimization in Language Learning	06
1.1.2 The Importance of Optimizing the English Language Skills.....	07
1.2. Historical Overview of Language Learning Technologies.....	09
1.2.1. Evolution of Language Learning Technologies.....	12
1.2.2. The Emergence and Development of AI-based Tools in Language Learning.....	12
1.2.2.1. Definition of AI and its Tools.....	13
1.2.2.2. Types of AI-based Tools in Language Learning.....	14
1.2.3. Integration of AI-based Tools into Language Learning Frameworks.....	15
Conclusion	17
Chapter Two: Method, Data Analysis and Recommendations	
Introduction.....	18
2.1 Research Design	18
2.2 Sample Population	18
2.3 Data Gathering Tools	18
2.4 Description of Students' Questionnaire	19
2.5 Analysis of Students Questionnaire	20
2.6 Discussion of the Findings	35
2.7 Practical Implications	36
2.8 Recommendations.....	37
General Conclusion	41
References	42
Appendices	

List of Acronyms and Abbreviations

AI: Artificial Intelligence

Apps: Applications

EFL: English as a Foreign Language

Q: Question

%: Percentage

List of Tables

Table 1: Students' Opinion about their English Level	20
Table 2: AI-Based Tools Used by the Students.....	21
Table 3: The Setting of the Use of the AI-Based Tools.....	31

List of Figures

Figure 1: Students' Familiarity with AI-Based Tools	21
Figure 2: The Effect of Using AI-Tools on English Language Learning.....	23
Figure 3: The Frequency of Using AI-Tools	24
Figure 4: Positive Impact of the AI-Tools on the Learning Skills	25
Figure 5: The Comparison Between a Real and a Virtual Person in Speaking.....	26
Figure 6: The Effect of the Psychological Barriers on Speaking with a Real Person	27
Figure 7: The Effect of AI-Tools on Students' Vocabulary, Punctuation, and Accuracy.....	28
Figure 8: The Effect of Discord App on the Speaking Skill	29
Figure 9: The Effect of Reverso Application in Improving Students' Level.....	30
Figure 10: Teachers' Opinions about the Use of AI-Based Tools by the Students.....	31
Figure 11: The Effect of Making Relationships Using AI Apps in Enhancing Students' English.....	32
Figure 12: The Effect of AI-Tools on Students' Motivation.....	33
Figure 13: The Improvement Noticed after the Use of AI-Tools.....	34
Figure 14: Students Opinion about Recommending the Use of AI-Tools in Learning English.....	35

General Introduction

Learning a new language is very important in the recent era. People use the English language in order to communicate with others in all over the world. Thus, learning such language is crucial, but it needs so much effort in order to acquire its vocabulary, grammar and the other linguistic elements. Using the technological tools nowadays is considered as one of the helping instruments that can help any learner of the language to learn it in an easy and effective way, since devoting the time in using such instruments is so beneficial especially when dealing with the new applications (apps), such as the AI-based tools.

The AI based tools are one of technologies that are most useful by the foreign language learners due to its assistance in enhancing the level of the students, i.e., there are many modern apps which are used by them and they can be so helpful in improving their schemata. For such reason, the optimization of the English language is highly related to the usage of such elements.

1. Statement of the Problem

Learners of English as a Foreign Language (EFL) frequently encounter difficulties in their language acquisition journey, such as restricted access to native speakers, and diverse degrees of background knowledge. The unique needs of every student may not be adequately met by traditional classroom environments and learning resources, which could result in less than ideal learning outcomes. By providing individualized, flexible, and interactive learning experiences, artificial intelligence (AI) based tools such as Duolingo, Grammarly, Discord, Cake are of paramount importance in helping EFL learners to optimize and personalize their learning.

2. Aims of the Study

The aim of the current research is to probe second year EFL students at Chadli Bendjedid University viewpoints towards the optimization of the English language through the use of the AI tools like: Duolingo, Grammarly, AI snapchat, Chatbots ...etc and it highly aims at depicting its effectiveness as well as their experience when using them.

3. Research Questions:

This research work aims at answering the following questions:

1. To what extent does the use of the AI-based tools improve the English language among second year EFL students at Chadli Bendjedid University?
2. How do second year EFL students perceive the use the AI-based tools in optimizing their English language?

4. Research Hypotheses

On the basis of the aforementioned questions, it is hypothesized that:

1. The use of AI-based tools would improve the English language of second year EFL students at Chadli Bendjedid University. Specifically, students who regularly engage with AI tools such as AI-Snapchat for interactive communication, Grammarly for grammar exercises, and Discord for vocabulary building will demonstrate greater improvements in fluency, accuracy, and overall language skills.
2. Second year EFL students at Chadli Bendjedid University perceive the use of AI-based tools as highly beneficial in optimizing their English language learning. They find these tools to be engaging, effective in providing personalized

feedback, and helpful in improving various aspects of their language skills, including grammar, vocabulary, and fluency.

5. Significance of Study

This study can be significant for:

Students: The current research provides the students' perception about their own experience in optimizing the English language via the AI-based tools use such as: Duolingo, Cake, Discord, Grammarly ...etc. All of these AI-tools turn with their positive results on the learners' way of learning the English language.

Researchers: This work will benefit future researchers who wish to continue studying this topic, as its findings play an important role in completing the research and providing valuable information for future studies.

6. Research Design

This dissertation is based on a descriptive study, utilizing a questionnaire designed for second year EFL students at Chadli Bendjedid University during the 2023-2024 academic year. In effect, a pre-questionnaire was administered to students from all four levels of the English department (i.e., first year, second year, third year, and master one) to select an appropriate sample population and gather diverse viewpoints on the optimization of English language learning through AI-based tools such as Grammarly, Cake, and Discord. This process was undertaken to test the suggested hypothesis. The gathered information will be analyzed using a mixed-method approach, incorporating both quantitative and qualitative modes.

7. Organization of the Dissertation

This dissertation is structured into two chapters. The first chapter addresses the literature review, providing various insights into the use of AI-based tools for optimizing students' English learning. It includes topics such as the definition of optimization in language learning, the importance of optimizing English language skills, a historical overview of language learning technologies, the emergence and development of AI-based tools in language learning, types of AI-based tools, and the integration of these

tools into language learning frameworks. The second chapter is devoted for the methodology used in conducting this study ,analyzed the questionnaire, interpreted the results and offers suggestions to help second year EFL students utilize the AI-based tools to enhance their English language learning.

8. Limitations of the Study

when conducting this research, we have faced some limitations. These include challenges related to sample size and selection, such as accessing participants can be difficult due to varying availability. In data collection phase we encountered issues like low response rates and reliance on self-reported data. Time constraints limit the study's ability to capture longterm effects. Recognizing and mitigating these limitations are essential for ensuring the validity and reliability of the research findings.

Chapter One

AI-based Tools and English Language Learning

Introduction

No one can ignore the importance of learning a new language, particularly English, as it is an ever-present requirement in various situations worldwide. Whether it is asking "Do you speak English?" or navigating through international interactions, proficiency in English is invaluable. Hence, understanding the tools and methods used for language acquisition becomes crucial. Previously, EFL learners primarily relied on traditional learning methods, such as books, for acquiring language skills. However, this approach was often time-consuming and labor-intensive. With the advent of technology, the learning landscape has transformed, offering learners easier and more effective ways to acquire language skills. Technological tools have become instrumental in enhancing the learning process, facilitating both acquisition and development.

In the modern era, new technologies, such as AI-based tools, have emerged as popular choices among the younger generation. Examples include Duolingo, AI Snapchat, Discord, Cake, and more. Each application offers unique benefits and impacts language learning differently, emphasizing the importance of selecting the appropriate tool for language acquisition.

Overall, the integration of technology, particularly AI-based tools, has revolutionized language learning, making it more accessible and efficient. Choosing the right tool can significantly enhance language skills and accelerate the learning process.

1.1. English Language Learning Optimization and Technology

When learning a new language, learners differ in their strategies for achieving fluency and mastering the language. Each student adapts his/her approach based on individual needs

and preferences to optimize his/her learning. It is crucial to follow effective techniques that use technology to facilitate easier language learning.

The use of technology when learning the English language becomes an interesting subject that is tackled by many researchers because it is taken as one of the key elements which may work on the enhancement of the EFL learners' level and abilities. Thus, the optimization of the language can be related to the use of such technological tools in which learners can listen to native speakers for example, listening to the audio podcasts, or video, or even stick to some AI-based tools like: Discord, Cake, Duolingo ...etc. (ACTFL).

According to (the American council on the teaching of foreign languages ,2017) K(ACTFL). The concept of optimization has a great deal with the best use of something because it turns back with its positive results. Therefore, being optimized is highly related to the use of technology. Because technology is a necessity and especially in the recent times people stick to the use of it instead of going back to the printed books or dictionaries to search for the meaning of certain items or any other students' needs. Thus, it can be also used in solving the home-works, learn more about the language and enhancing the grammar...etc. These technological tools differ from each other especially when learners started to use only these new technologies to optimize what they need to learn via the AI tools and each one of them has its own impact on improving a certain skill, for instance: Grammarly is an AI application that is used in helping the students correct as well as learn the grammatical rules and this is so beneficial for their accuracy. In addition, Duolingo, chatbots, and Discord and the other tools are specified in making the learner having more "Vocabulary" so that, they may learn new items which can help him/her use the language more fluently.

1.1.1 Definition of Optimization in Language Learning

In Oxford Dictionary (2024) the word “Optimization” is an important linguistic term which means the enhancement, improvement and the development. Therefore, enhancing the language is not an easy task because it needs a lot of efforts, time and researches for achieving such concept. Especially when it concerns the foreign language learners because each one of them has his/her own strategy which enables him/her learn the language; for example, some learners need motivation in order to be more advanced in the language because it plays a salient effect on making the student more confident, so that he can learn and produce the language. Practicing is another key element in improving the level of any learner because he/she needs to practice as much as possible and this may correct the pronunciation, vocabulary, grammar...etc.

In short, the optimization of language learning depends on students' needs and determination, and it can be greatly enhanced through the use of technology. Students consider technology a valuable tool for developing their English language skills, using it for tasks such as searching for word meanings and conducting research, among other activities.

1.1.2 The Importance of Optimizing the English Language Skills

Kabella (2024) declared that learning a new language requires the four skills because they are considered as one of the main elements which may help any learner to acquire the language easily. Thus, EFL learners must know how to optimize the language skills to enable themselves produce that language in a correct way. However, the improvement of these skills needs many options, for instance: through watching movies in English, practicing, communicating with native speakers through the usage of the modern technological instruments, ...etc. Therefore, reading, listening, speaking and writing are considered as the major components of the language that need to be well mastered and optimized by EFL students.

Reading as a skill has a crucial impact on enhancing the language because the more students read, the more they learn new linguistic rules, such as: learning the meaning of new words, idioms, examples, topics...etc. In short, the optimization of language learning depends on students' needs and determination; and it can be greatly enhanced through the use of

technology. Students consider technology a valuable tool for developing their English language skills, using it for tasks such as searching for word meanings and conducting research, among other activities. However, reading e-books presents an interesting concern because people use modern technological devices to choose where, when, and how they read. This adaptability caters to the learners' individual needs and preferences.

Listening is another linguistic skill that should be taken into account when learning a new language because a good listener is a good speaker, this means that the more the learner listens to different sources which enable him/her to learn the language, the more he/she becomes fluent as well as accurate. Moreover, listening can be applied through capturing new items from Podcasts, Youtube videos or any other audiovisual sources that can be a helping tool for any student to acquire a large amount of words and ideas. For instance, podcasts may be very helpful when a learner he/she may listen to some interesting topics, like: the podcasts of how to improve one's language...etc. Thus, the vocabulary is going to be fruitful and this may help expressing one's thoughts and ideas easily. In addition, listening to native speakers' speech is also a modern way of learning and this can be applied through attending the online conferences with such kind of speakers or via the use of the modern technological devices such as: Duolingo, chatbots ...and so on since they become very used, so in this situation technology is considered as a tool of help for EFL learners to invite them learn when, where and how to speak.

Speaking is highly related to the listening skill because the more learner listens to the different sources, the more he/she may build good skills. That is why it is taken as the most important one because wherever you go you need to speak and exchange information with people especially when a speaker finds himself/herself obliged to express his/her thoughts about a certain subject. Therefore, he/she may be asked like: Do you speak English? or what do you think about such thing? That is why it is very important to know how? Where? And when to speak. In order to be a good speaker, it is preferable to practice from time to another because

practicing the language is crucial to make first the self-confidence and to be more talkative. Another solution to solve the problems that may occur while producing the language orally is to utilize technology through the usage of the several applications afforded in the net for example: the AI-tools Discord and Cake, these two instruments are very effective to learn how to express a person's ideas because he/she may create an E-conversations with the users of such AI-tool. Thus, speaking will be easy to be acquired as well as mastered. For such reason, using technology when learning is salient because it highly helps to learn more about the language, so learners can solve such linguistic problem and it may also make them confident enough to face any audience while communicating.

Writing is the graphic presentation of sounds which has different steps that should be known by any learner in order to enable him/her to write. Technology can be a facilitator for the students to write in a coherent and cohesive way and through the use of some technologies this skill may be easily learned. Grammarly is one of the AI applications which can be used by EFL learners to learn the grammatical rules which helps them also correct themselves specifically for the ones who may write, but they do not know how to apply grammar when writing a piece of paper. Besides, there are also some AI-applications which help the students to know about all of these linguistic issues.

All in all, these four skills have an important role in learning any language because of their necessity in making the students know about all of the linguistic aspects that should be taken into consideration when learning (Kaballa, 2024).

1.2. Historical Overview of Language Learning Technologies

The concept of technology has become a fascinating subject worldwide, as people use it to learn new languages more easily. They utilize various technological devices such as cell phones and computers, enabling them to communicate and exchange information with people from different regions, thereby enhancing their language skills and meeting their needs.

However, this does not negate the importance of using books for language learning, particularly in the period before technology was widely accessible, when people relied on traditional resources like printed books.

To effectively acquire a new language, learners need to understand what and how to learn based on their individual needs and preferences. Each student chooses a suitable strategy to facilitate their learning. In the past, people relied on traditional methods due to the lack of technological tools, such as printed books. For example, when searching for the meaning of a word, they would consult books and read until they found the information they needed. Over time, new and easier methods of learning emerged, culminating in the advent of technology. This technological advancement significantly transformed the way learners approached language acquisition. Modern tools, such as electronic dictionaries, provide instant information with a simple click, greatly improving the learning experience.

Thus, the use of technology in language learning has a long history dating back to the early 20th century and the purpose behind using such technologies is enhancing the language skills and bringing authenticity as well. By time, technology was highly prospered in which learners started utilizing the new and effective tools which are: The AI-based tools (Zucchet, 2023).

According to Smith (2020) language learning has been in a permanent development, in the aim of making the language learning process more: easier, enjoyable, and beneficial for learners and he claimed that, “Language is not a genetic gift, it is a social gift. Learning a new language is becoming a member of the club – the community of speakers of that language.

All in all, the following points illustrate the historical changes in language learning technologies. According to the National Museum of Language (2008), language acquisition has evolved through various periods:

- **1800s: The Magic Lantern and the Sandbox**

The magic lantern, a precursor to the modern projector, introduced the concept of using images in language learning. This visual aid allowed teachers to present pictures to their learners, facilitating oral commentary and expression, thus optimizing speaking skills.

• **1950s: The Language Lab**

As technology advanced, new methods for language learning emerged. In contrast to earlier times, when the only available tool was a record player, which often had sound issues, the 1950s saw the introduction of language labs in schools and universities. These labs provided a more reliable means of producing language, hosting conferences with native speakers, and offering authentic materials like audio-visual videos. This development significantly benefited students by enhancing their language proficiency.

• **Teacher's Corner January 2019: Carmen Sandiego**

In the 1980s and 1990s, teachers began incorporating computers into their classrooms. Over time, technology continued to play a crucial role in language acquisition. Tools like Netflix and podcasts became integral to the teaching process. The Carmen Sandiego series, particularly through games like crosswords and puzzles, became a popular educational resource.

Each learning strategy, whether traditional (e.g., printed books) or modern (e.g., artificial intelligence), plays a crucial role in optimizing learners' skills. Traditional methods, such as the printing press, were among the earliest forms of technology used to acquire and facilitate knowledge. Modern inventions, like AI-based tools, have a special and beneficial impact on language learning by providing personalized feedback, tailored learning paths, and incorporating gamification elements to enhance engagement and enjoyment among learners (Smith,2020).

1.2.1 Evolution of Language Learning Technologies

Technology and language have become an interesting subject for many researchers due to their relationship in enhancing the proficiency of EFL learners. In earlier times, technology

was not as defined or prevalent as it is today, and the methods of learning have significantly evolved. Previously, English language learners primarily relied on books, and only a few were familiar with technological tools. Over time, various inventions made the concept of technology more familiar, eventually spreading worldwide and becoming a significant aspect of language learning (Zucchet, 2023).

In the modern era, technological advancements have introduced numerous tools, including AI-based instruments. Zucchet (2023) stated that artificial intelligence has revolutionized language learning by offering personalized and optimized tools. According to Zucchet, these AI-based tools play a crucial role in assessing students' proficiency levels. They can also provide lessons that facilitate easier learning through platforms like chatbots, Grammarly, and Cake.

These tools have positively impacted the learning process, especially when using AI-based applications like AI Snapchat to communicate with native speakers. Such interactions help learners improve their language skills. Additionally, new technological instruments serve as motivational sources by providing positive feedback on student performance. For example, Duolingo offers encouragement and constructive feedback, further assisting language acquisition.

1.2.2 The Emergence and Development of AI-based tools in Language Learning

Dunn (2023) noted that artificial intelligence has become a significant development in recent times as language learners increasingly utilize modern technological tools for online learning. As a result, AI-based tools have gained prominence in e-learning environments, meaning students use these tools not only in the classroom but also in various educational settings. Recently, students have embraced e-learning as a convenient and effective way to acquire language skills. AI-based tools have a substantial impact on optimizing and enhancing learners' abilities and proficiency.

Building on this idea, the use of AI tools leads to satisfying outcomes because learners find these materials essential for improving their knowledge and skills. Therefore, the implementation of AI-based tools in the learning process is crucial for language acquisition, as students rely on these technological instruments to determine what and how they want to learn.

1.2.2.1. Definition of AI and its tools

➤ Definition of the Artificial Intelligence

The term "Artificial Intelligence" consists of two main words: "Artificial," meaning something created or produced by humans rather than occurring naturally, and "Intelligence," which refers to the human ability to solve various life situations. Combining these definitions, artificial intelligence can be described as a new form of technology that is widely used by foreign language learners to enhance their language skills and perform accurately. It aids in reasoning, decision-making, interaction, and receiving feedback, enabling learners to correct themselves (Jones, 2021).

➤ Definition of Artificial Intelligence Tools

Artificial intelligence encompasses a variety of tools, each with different functions tailored to the user's needs. In the educational field, learners utilize AI-based tools that are specifically designed to aid learning, each with unique characteristics. For example, Duolingo is beneficial for learners who want to acquire a new language. Grammarly and Reverso assist self-monitoring learners in checking and assessing their writing. Cake and Discord cater to learners who prefer learning through visual, auditory, and spoken interactions.

1.2.2.2.Types of AI-based Tools in Learning

Miljević (2021) said that the AI-based tools are designed to facilitate the language learning process by providing personalized feedback, engaging learning experiences, and opportunities for real-life language practice, and also translation. These tools are suitable for

learners, since they are non-judgmental and quick; i.e., no need for waiting long time to get the feedback.

❖ **Speech Evaluation and Feedback Tools**

It is very important to learn how to speak correctly and without making any mistakes which may affect the listener's understanding. However, many students face some linguistic problems while expressing their thoughts and ideas for such reason they stick to use technology to solve such linguistic problems, so they directly go and use the new technologies such as: Discord, Cake and Duolingo. These are audio tools that analyze learners spoken language and evaluate the language aspects like (fluency, accuracy). In addition to this, these recent applications may also assess and provide feedbacks to the learners and this can be very effective for them in improving the speaking skills and pronunciation which will make the learner more confident in producing the language.(Redfern,2024)

❖ **Conversational Tools**

These tools are beneficial for interactive situations that learners may encounter both inside and outside the classroom. They allow learners to practice conversation skills in realistic contexts, making virtual speaking situations more comfortable for those who fear judgment or face-to-face interactions. These tools act as a pre-practice platform for learners. Examples include Discord and AI Snapchat (Godwin_Jones,2021).

❖ **Generative AI Translation Tools**

Similar to conversational tools, these tools also offer a translation option for situations where learners struggle with vocabulary or face cognitive challenges, such as difficulty recalling words. When learners have ideas, they want to express but lack the words, these tools help translate thoughts into words, facilitating communication with native speakers. for example: Reverso (Godwin_Jones,2021).

❖ **Personalized Learning Tools**

Each learner has unique needs they want to address, so they use various tools to enhance specific areas. These instruments cater to self-monitoring learners responsible for their own learning process, providing personalized feedback, recommendations, and adaptive learning experiences based on their progress and preferences. They also offer activities and tasks, enabling learners to learn and assess their progress simultaneously. An example is Duolingo (Godwin_Jones,2021).

❖ **Vocabulary Building Tools**

These AI tools help learners build their vocabulary by saving their current vocabulary background as artificial memory and introducing new vocabulary through conversations, podcasts, videos, and more. They enable learners to store vocabulary, refresh their memory with new words regularly, and provide flashcards for quick review. An example is Cake (Godwin_Jones,2021).

1.2.3 The Integration of AI-based Tools into Language Learning Frameworks

In the modern era, language technology has emerged as a crucial aspect of human life, especially for learners. Through extensive research and development, technology has evolved significantly, with foreign language learners increasingly turning to new AI applications to enhance their learning (Mavropoulou, & Arvanitis, 2023).

These new technological instruments have been integrated differently based on their functions in optimizing language learning. They are integrated as follows:

- **Duolingo:** Integrated as a linguistic application that classifies individuals based on their level, needs, and goals. It provides personalized learning paths and instant feedback.
- **Reverso:** Integrated as a correction tool for learners aiming to improve accuracy in writing. It ensures writing is error-free, well-structured, and grammatically correct.

- **AI Snapchat:** Integrated as a virtual teacher that answers questions, provides feedback, and assesses learners. It benefits learners who face psychological barriers or time limitations.
- **Discord:** Integrated as a communication tool for learners to speak and interact with native speakers, improving speaking fluency and real-life language use.
- **Cake:** Integrated as a visual tool offering authentic videos and interactive exercises to enhance vocabulary and pronunciation skills, as well as overall language proficiency.
- **Grammarly:** Integrated as a grammar checker that helps learners refine their writing before submission. It suggests vocabulary to support creativity and improve writing quality.
- **Chatbots:** Integrated as a comprehensive tool covering various language skills, serving as a virtual umbrella for AI-based language learning tools.

These AI-based tools are seen as modern technological innovations that complement the role of traditional teachers and provide learners with comfortable and effective learning experiences. They offer personalized learning paths and bridge the gap between learners and language acquisition.

Conclusion

Technology has revolutionized various aspects of life, with AI-based tools serving as facilitators and life-savers for people worldwide. EFL learners have increasingly integrated technology into their learning processes, finding it essential for solving linguistic challenges. With the rapid development of AI-based tools, language learning has become more accessible and effective than ever before. The diverse functionalities of these tools cater to different learning needs, optimizing students' proficiency and language acquisition abilities.

All in all, the widespread use of AI-based tools among students highlights their significance in enhancing learning outcomes and facilitating language acquisition in diverse ways.

Chapter Two

Method, Data Analysis and Recommendations

Introduction

This chapter includes the research design, which contains the method used to conduct this research and the sample population who participated in answering the questionnaire alongside the data gathering tools, and the analysis of the students' views about this topic under study. Moreover, it covers the discussion of the findings and the recommendations.

2.1. Research Design

This research falls under the category of descriptive studies, aiming to explain how students utilize AI-based tools to enhance their English language learning. Consequently, a questionnaire was carefully designed to gather the necessary information from the students.

The study employs a mixed-method approach to analyze the collected data comprehensively.

2.2. Sample Population

The target population for this dissertation comprises second year EFL students at Chadli Bendjedid University enrolled in the 2023-2024 academic year. A total of 50 questionnaires were distributed by the researchers, and almost all were accordingly completed by the respondents. The selection of this sample population was based on a preliminary questionnaire administered to students across different levels: first-year, second-year, thirdyear, and Master one students.

2.3. Data Gathering Tools

To ensure the studies' reliability and accurately depict how second year EFL students at Chadli Bendjedid University utilize AI-based tools, a questionnaire was employed as the primary data gathering instrument. This approach provides insights into the use of AIbased tools such as Duolingo, Chatbots, Discord, Grammarly, and AI Snapchat for language learning enhancement. The collected data is helpful in yielding results that reflect the impact of these technological tools on students' language acquisition processes.

2.4. Description of the Student's Questionnaire

The questionnaire administered to the sample population consists of 18 questions, combining both closed-ended and open-ended formats, with justifications requested where applicable. Closed-ended questions provide specific choices, while open-ended questions allow students the freedom to express their thoughts in detail.

- **Question 1:** Students were asked to assess their level in English (Excellent, Good, Average, or Poor).

- **Question 2:** Inquired if students were already familiar with AI tools.
- **Question 3:** Asked which AI tools the students knew, with options provided (Duolingo, Chatbots, Discord, Grammarly, and AI Snapchat).
- **Question 4:** Sought to determine which AI applications students found most effective in optimizing their English language skills.
- **Question 5:** Asked how helpful students found AI-based tools in enhancing their English language learning.
- **Question 6:** Students were asked how frequently they used these AI applications (Always, Sometimes, Rarely, or Never).
- **Question 7:** Combined closed-ended and open-ended formats to assess the positive impact of AI devices on the four language skills, with a request for justification.
- **Questions 8 to 12:** Focused on the role of each AI tool in optimizing English language learning.
- **Question 9:** Asked about social barriers when speaking with a real person.
- **Question 13:** Tackled the settings where students utilize AI-based instruments (inside the classroom, outside the classroom, or both).
- **Question 14:** Asked if their teachers supported the use of new technological tools, followed by a justification.
- **Question 15:** Combined closed-ended and open-ended formats to ask if students made friendships through these apps and how these tools could help in developing their English language.
- **Question 16:** Explored the influence of AI tools on student motivation and engagement.
- **Questions 17 and 18:** Inquired if students noticed any improvements when using AI tools and whether they would recommend their usage.

This structured approach in the questionnaire aims to gather comprehensive data on how second year EFL students at Chadli Bendjedid University use AI-based tools to enhance their

English language learning.

2.5. Analysis of Students Questionnaire

Question 1: what do you think about your level in English?

- **Excellent**
- **Good**
- **Average**
- **Poor**

Table1

Students' Levels

Level	Excellent	Good	Average	Poor
Number	3	32	15	0
Percentage	6%	64%	30%	0%

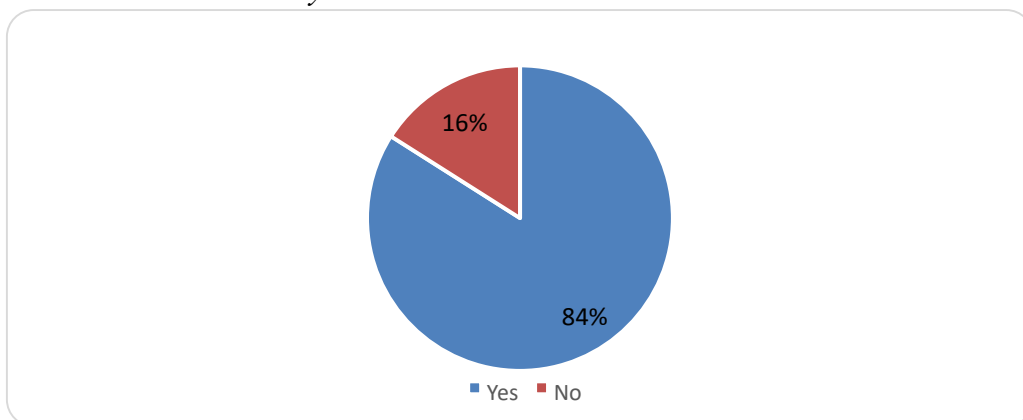
Most of the participants (64%) saw that their level is Good in English, (30%) of them found it average, and only (6%) said excellent. No one found it poor.

Question 2: Do you know the AI-based tools.

- **Yes**
- **No**

Figure1

Students' Familiarity with AI-Based Tools



The responses of the informants showed that (84%) of them know the AI-based tools.

However, (16%) denied knowing them.

Question 3: What kind of the following AI-based tools do you use in your English language learning?

- **Duolingo**
- **Chatbots**
- **Discord**
- **Grammarly**
- **AI Snapchat**

Others,
specify.....
.....

Table 2

AI Based Tools Used by the Students

Options	Duolingo	Chatbots	Discord	Grammarly	AI Snapchat	Others
Numbers	19	29	9	11	19	5
Percentage	38%	58%	18%	22%	38%	10%

NP: The global percentage is not equivalent of 100% because of the multiple choices of the students.

The most used tool is Chatbots with a percentage of (58%), followed by Duolingo and AI Snapchat with same percentage of (38%) for each; next we have Grammarly with (22%). The less AI tool used is Discord with (18%). As other options (10%), participants have mentioned: Perplexity, Babel, Praktika, ChatGpt, Elsa speak.

Question 4: What specific AI tools or applications have you found most effective in improving your English language skills?

Based on participants' answers, the most effective AI-tools in improving the English language skills are: Grammarly, AI Snapchat, ChatGpt, and Duolingo.

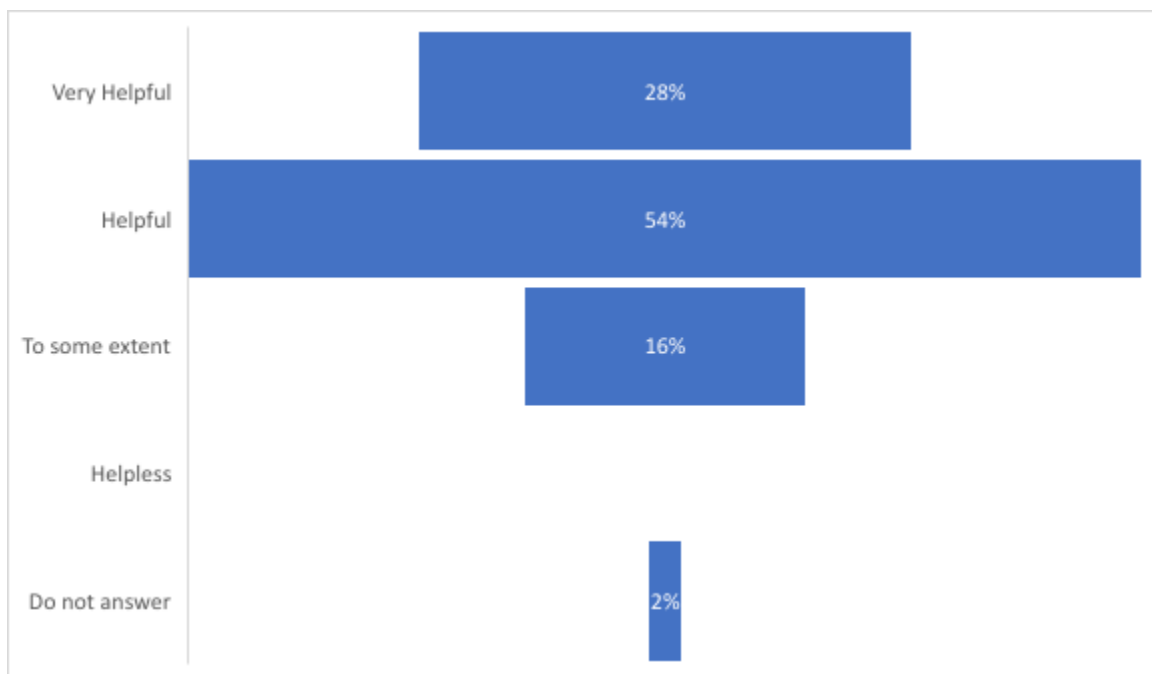
Question 5: How did you find the use of AI-tools in your English language learning?

- **Very helpful**
- **Helpful**
- **To some extant**

- **Helpless**

Figure 2

The Effect of Using AI-tools on English Language Learning



The result obtained from the data showed that most of the respondents (54%) found that AI-tools is helpful while learning the English language; however, (28%) of them found it very

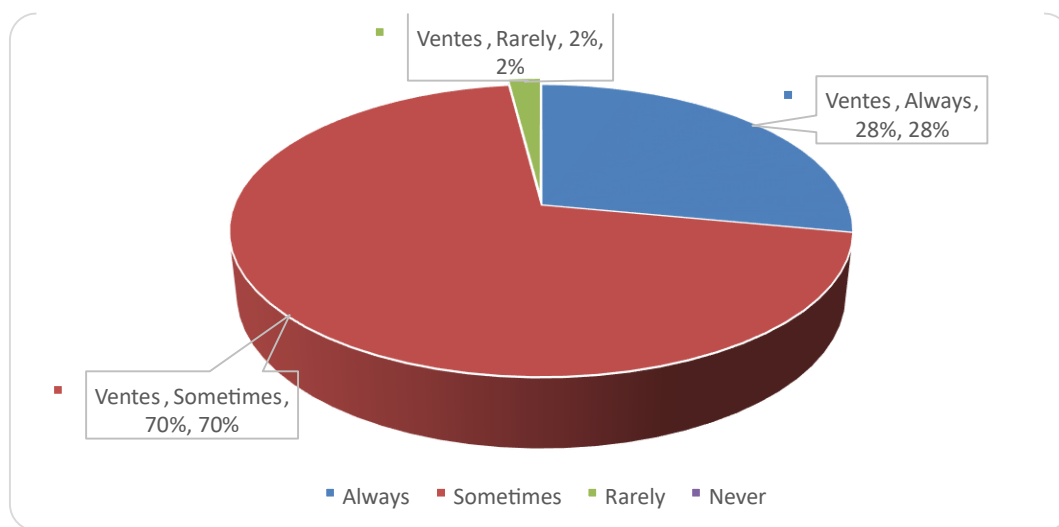
helpful, and (16%) said to some extent. Only (2%) did not answer and no one said that they are helpless.

Question 6: How many times do you use the AI tools in learning the English language?

- **Always**
- **Sometimes**
- **Rarely**
- **Never**

Figure 3

The Frequency of Using AI-Tools

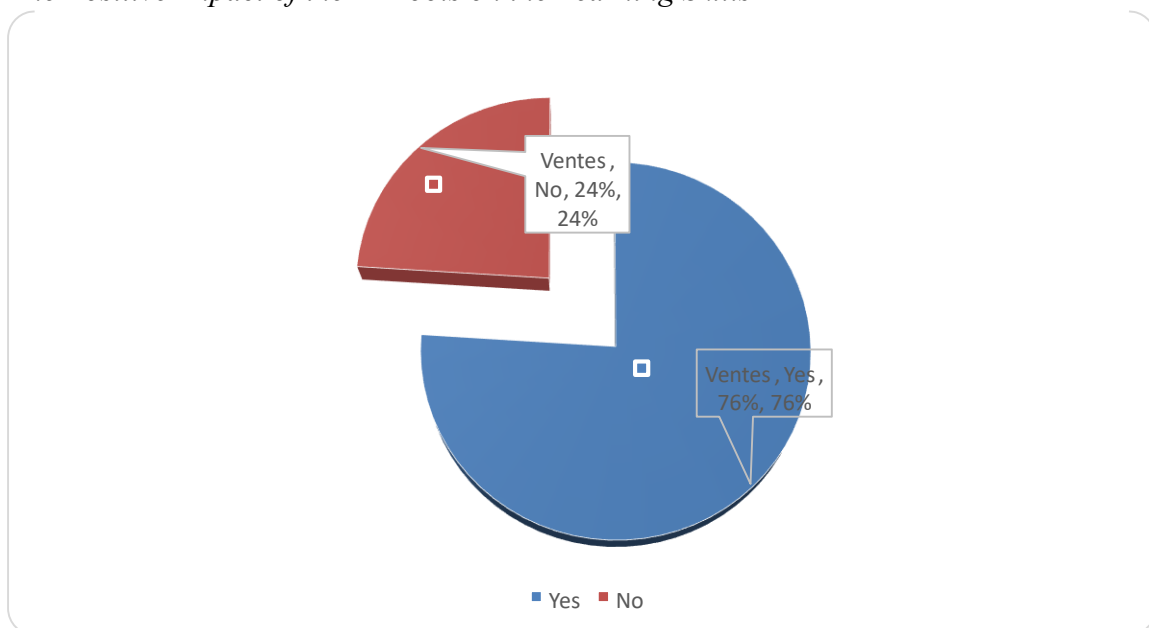


First, as we can see from the above figure, everyone is using AI tools (with 0% indicating they never use them). Seventy percent of the respondents claimed they sometimes use AI tools, while 28% reported using them frequently. However, only 2% stated that they rarely use these tools.

Question 7: Do you think AI-tools have positively influenced your speaking, listening, reading, or writing skills in English?

Figure 4

The Positive Impact of the AI-Tools on the Learning Skills



The sample population is made of 50 Participants (100%), 38 of them which is (76%) said yes about the positive effect of AI tools on their listening, speaking, reading, and writing skills. However, 12 of them (24%) disagreed. The majority, who said yes, explained their choice by saying that the AI tools have a positive effect on their skills, because the daily oral practice of the English language on those applications helps them improving their speaking and

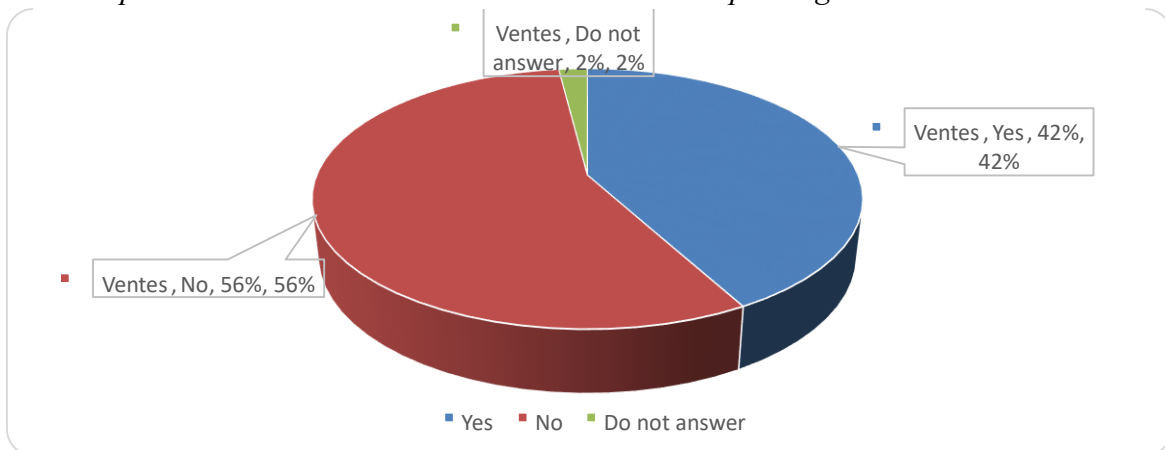
pronunciation. The availability of the books, articles with sources, and the possibility of checking and correcting the texts, essays, with providing a direct feedback, help them to be more competent in reading and writing. Also, the students who prefer to learn aurally, have found the diversity of authentic materials like: the videos, podcasts ... helpful in improving their listening skills. Contrary, the (24%) of participants who disagreed, argued that the AI tools are not safe, because their do not trust Robots, and the use of those tools makes the users lazy and dependable, because of the direct answers and feedbacks. They also explained the fact of the limited knowledge that the AI provides to the users.

Question 8: Do you think that speaking, asking, and interacting with a virtual person using AI Snapchat is more comfortable than dealing with a real person?

- Yes
- No

Figure 5

The Comparison between a Real and Virtual Person in Speaking



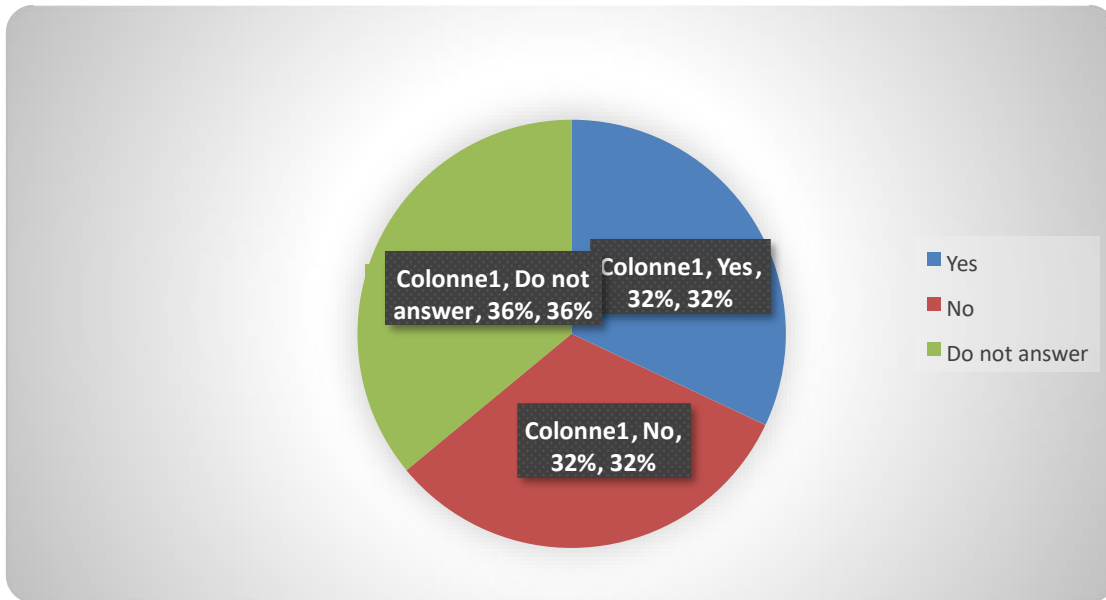
Concerning this question, the majority of the respondents (56%) found out that speaking with a virtual person is uncomfortable, and prefer to interact with a real person (face to face); meanwhile, (42%) of them agreed on speaking with a virtual person since it is more comfortable (the arguments are in the following answer). However, 2% of the participants were neutral and preferred to give no answer.

Question 9: Do you have psychological barriers that limit you to speak with a real person?

Justify

Figure 6

The Effect of the Psychological Barriers on Speaking with a Real Person



As it is shown in the above figure, (36%) of the respondents did not answer this question, (32%) of them said that they faced psychological barriers that limit them to speak with a real person, and they justified their answers by saying that those psychological barriers are: being introvert, social anxiety, shyness, fear of being judged. They believe that speaking with a robot or virtual person is more comfortable than speaking with a real person, since it is systematic and non-judgmental. Whereas (32%) of the respondents denied having psychological barriers and justified their answers by saying that they prefer face to face conversations, human interaction, the exchange of the ideas with real person, and they believe that robots can never replace a human being.

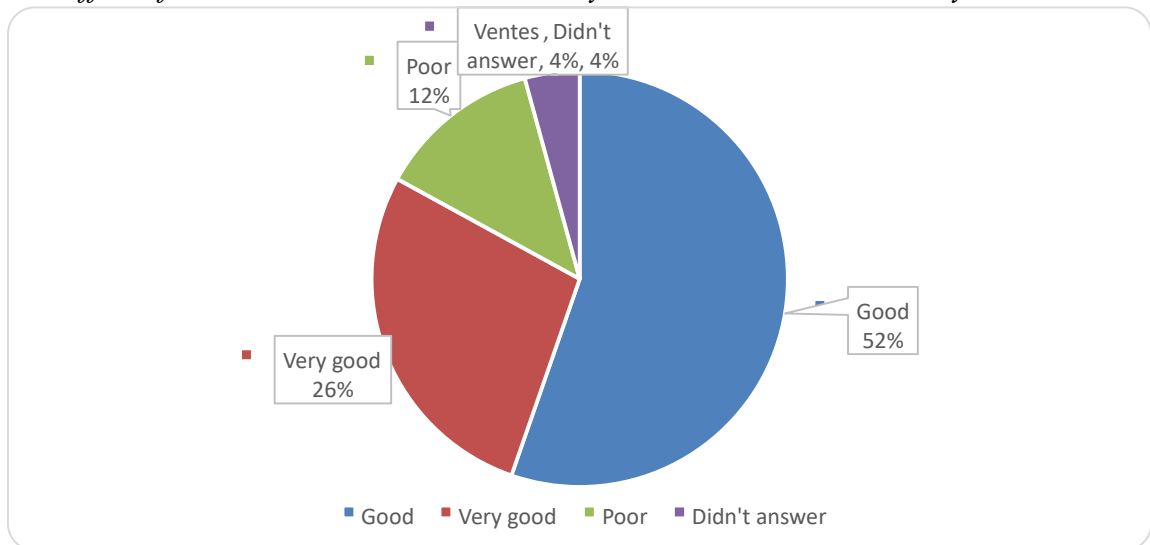
Question 10: What do you think about your vocabulary, punctuation, and accuracy after using Grammarly, Duolingo, and Cake apps?

- **Excellent.**
- **Very good**

- **Good**
- **Poor**

Figure 7

The Effect of AI-Tools on Students' Vocabulary, Punctuation, and Accuracy



As the figure above clearly shows, (52%) of the respondents said that their vocabulary, punctuation, and accuracy are becoming good after using the AI-based tools, (26%) of them said very good, also 6% said that they are becoming excellent. However, (12 %) found it poor even after the use; while the rest (4%) did not answer the question.

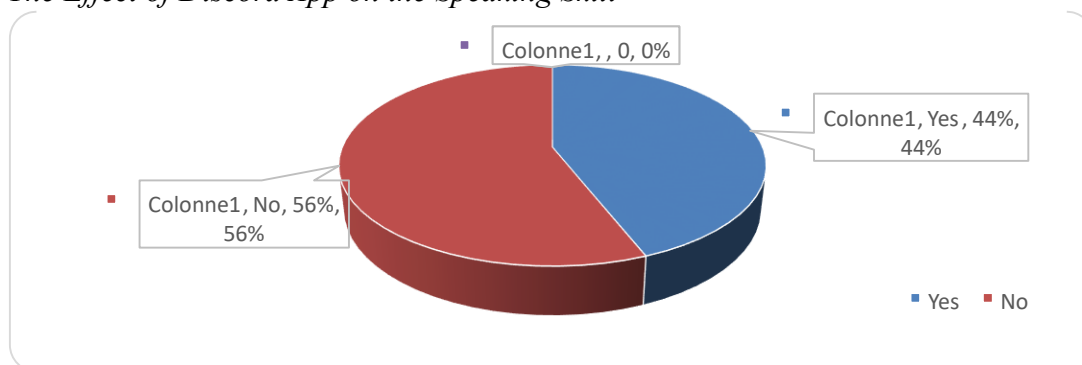
Question 11: Do you use the Discord app when learning how to speak?

- **Yes**
- **No**

If yes, what kind of topics did you tackle when using it?

Figure 8

The Effect of Discord App on the Speaking Skill



Almost the half of the participants (56%) do not use the Discord application, while (44%) of them use it, and they think that it is beneficial; since they can speak about different topics depending on their interest. For example: learners who are interested in sciences, technologies, and education ...they have mentioned scientific, technological, educational topics. The ones who are interested with culture, diversity, traditions, have mentioned that they speak with natives about their lifestyle, traditions and the history of their countries. Finally, the last category of the participants who used this application only for practicing the language or chatting, they have mentioned random topics like games, updates, and news.

Question 12: Do you think that the use of Reverso app to correct your mistakes and reformulating your sentences can help you improve your level in English?

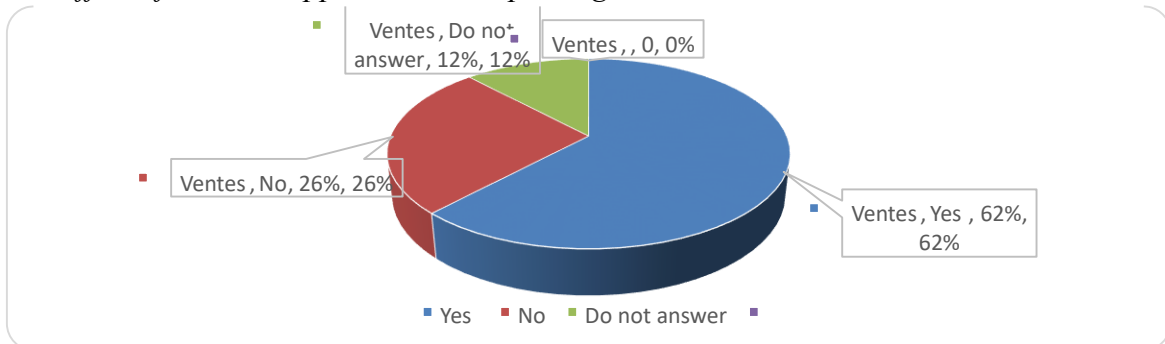
- Yes
- No

Justify:

.....

Figure 9

The Effect of Reverso Application in Improving the Students' Level



From the figure above we can see that (62%) of the participants have seen an improvement in their English level after using the Reverso app, since it is considered as a corrector, reformulator, and translator. They believed that the ability of this app in correcting their mistakes and providing quick feedback is helpful to know their weaknesses, and avoid repeating the mistakes again which will improve their level. Whereas (26%) of them claimed that they did not see any improvement, because this application is not correct all the time, and they prefer to depend on themselves in correcting mistakes and improving their level. Finally (12%) of the participants did not provide any answer to this question.

Question 13: Where do you use the AI-based tool?

- **Inside the classroom.**
- **Outside the classroom.**
- **Both.**

Table 03

The Setting of the Use of the AI-Based Tools

Options	Inside the classroom	Outside the classroom	BOTH
Numbers	6	17	26
Percentage	12%	34%	52%

The majority of participants (52%) noted that they use the AI-based tools on both settings (inside and outside the classroom). However, (34%) of them use it only outside the classroom, and (12%) are using it only inside the classroom.

Question 14: Do your teachers support you to use these AI apps in your learning?

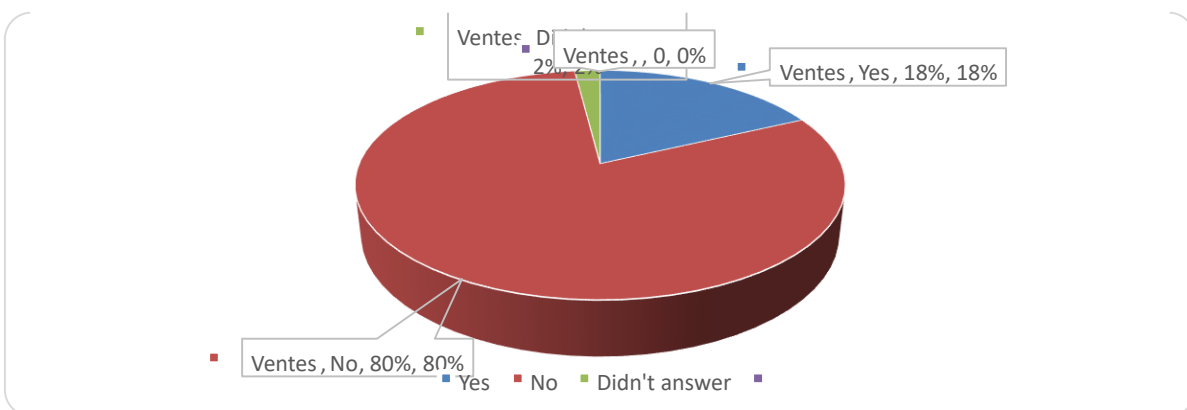
- **Yes**
- **No**

If yes, how?

.....

Figure 10

Teachers' Opinions about the Use of AI-Based Tools by the Students



Most of the informants (80%) said that the teachers are against and did not support them to use the AI-tools inside the classroom, and they provide some reasons such as the negative

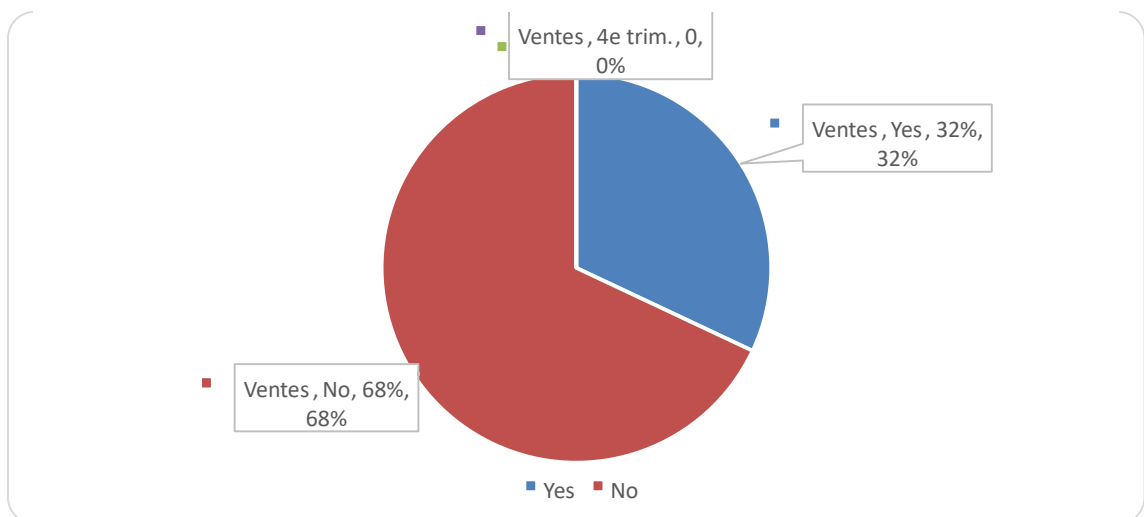
effect of these tools on the students' creativity, also the laziness that those apps cause to the learners when they become totally depending on the AI instead of being self-dependent and making efforts. In addition, the most of the teachers prefer the traditional way of learning, and do not support the updated technologies and considered them as tools of cheating. On the other hand (18%) of them claimed that they were supported by the teachers to use AI-tools, because they see that those tools facilitate the learning process, also they are time gaining since they complete what was missed in the classroom, and the most important reason is that they see the improvement on their students while and after using the AI-tools. Only (2%) of the informants did not answer this question.

Question 15: Did you make friendship from these apps?

If yes, how can these relationships be a tool of help in enhancing your English?

Figure 11

The Effect of Making Relationships Using AI Apps in Enhancing Students' English



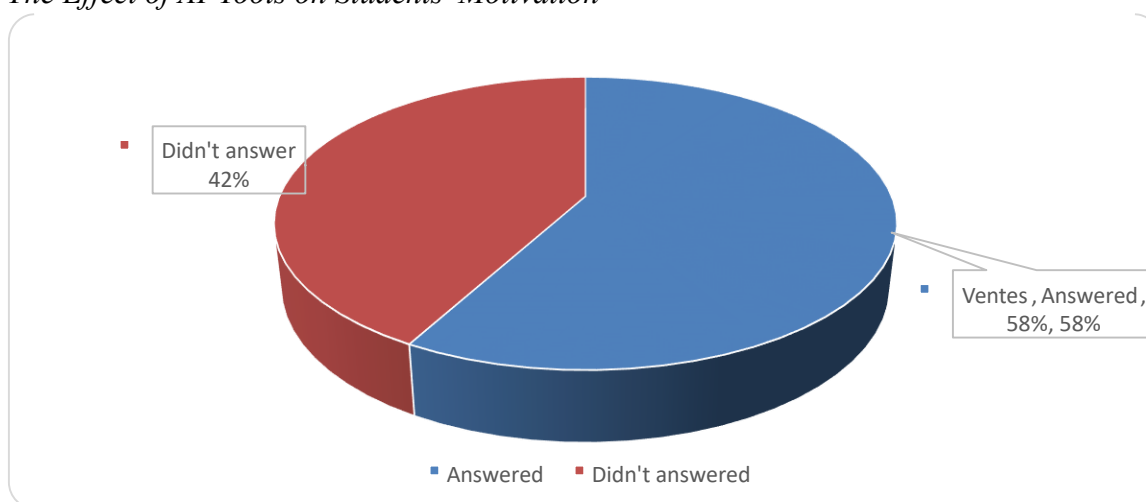
As we can see from the figure above, (68 %) of the participants declared that they did not make any friendship while using AI apps. On the contrary, (32%) of them stated that they made friendships, and argued the fact of enhancing their English language by saying that they found students who have the same educational purpose, so that they can exchange ideas. They

also considered those apps as tools of gaining new vocabulary, daily practice, build knowledge. After making friendships, students claimed that they become extrovert, fluent (speaking with natives frequently), enjoy learning because it is more comfortable when dealing with friends. Moreover, group discussions help them enhancing their interaction, listening skill, and speaking skills. They also enjoyed learning in a nonjudgmental environment.

Question 16: To what extent do you believe AI-based tools have contributed to your overall motivation and engagement in learning English?

Figure 12

The Effect of AI-Tools on Students' Motivation



Regarding this question, 42% of the sample population did not answer it without providing reasons. However, 58% of them agreed and answered positively about getting motivated after the use of AI-tools. They stated that those tools facilitate the learning process which motivates them to learn more. Also, the availability of data and the instant feedbacks help them to gain more time and produce more. After getting motivated the participants said that they get rid from stress, and anxiety, because of the preparation and the daily practice that they did with AI-tools encourage them to be more confident in their performance.

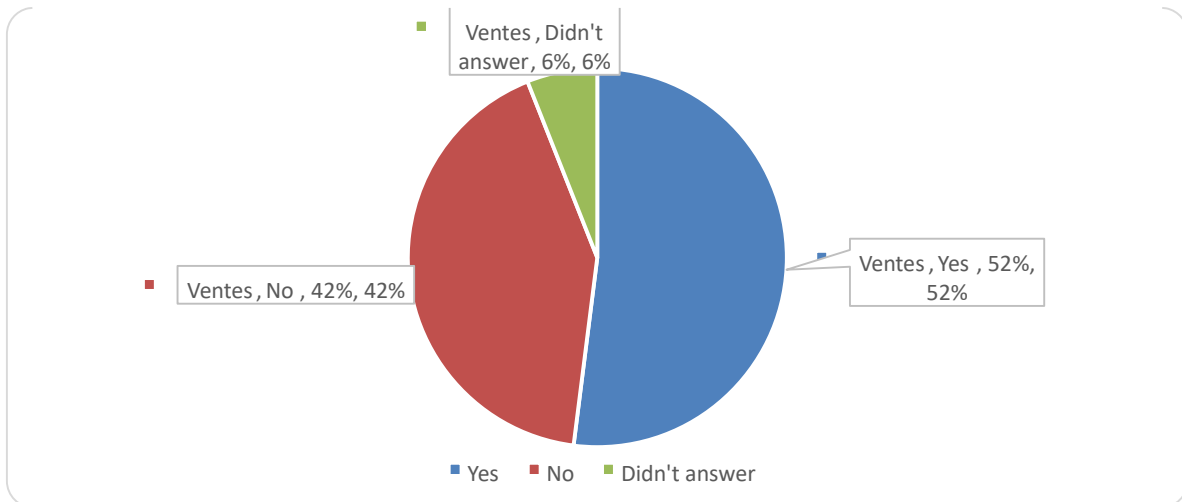
Question 17: Have you noticed any remarkable improvement when using these AI-tools?

- Yes
- No

If yes, justify.....

Figure 13

The Improvement Noticed After the Use of AI-Tools

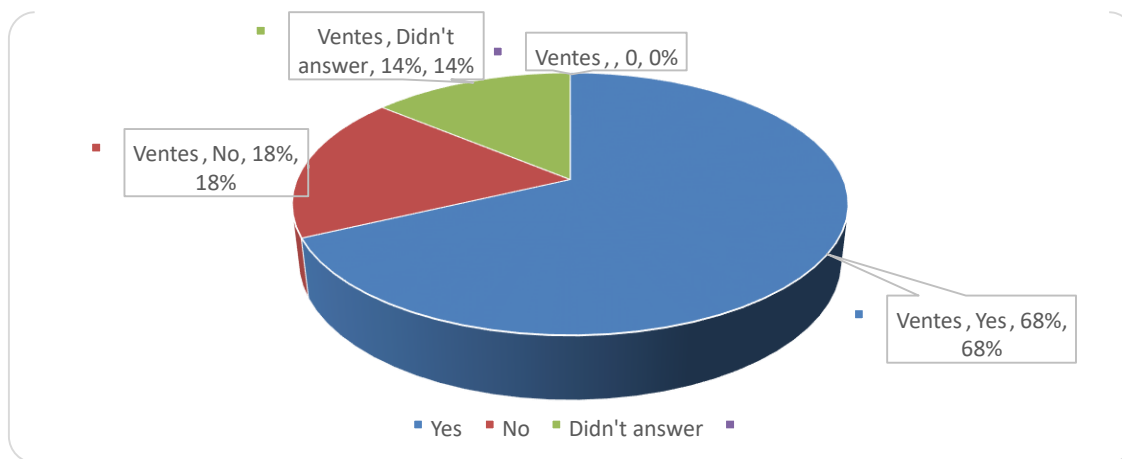


As it is shown above, (52%) of the informants have seen a remarkable improvement, especially in their vocabulary, pronunciation, speaking, and writing skills. They claimed that the use of AI-tools as a corrector help them to make less mistakes and produce impeccable works, which had had boosted their confident in learning. While (42%) disagreed and think that they did not see any improvement; contrarily they become lazy. However, (6%) of them did not answer at all.

Question 18: In your opinion, do you highly recommend the use of AI-based tools among students in order to improve their English language learning?

Figure 14

Students Opinion about Recommending the Use of AI-Tools in Learning English



The majority of the respondents (68%) recommended the use of AI-tools in order to improve the students' English language. They argued their recommendation by saying that those tools are facilitators of the learning process, boosters of the vocabulary, time gaining tools, mistakes and errors' correctors, and motivators. Those reasons pushed students to recommend it and being satisfied of using it. Meanwhile, (18%) of the respondents did not recommend the use of AI-tools, and they considered them as a waste of time and an incentive to laziness. They said that students should not rely on it and forget about the human intelligence, because they do not trust virtual world. The last group made up of (14%) did not answer the question.

2.6. Discussion of the Findings

This research aims to capture students' standpoints on using AI-based tools, such as Discord, Cake, and Duolingo, to enhance their English language skills. The analysis of the students' questionnaire reveals several key insights:

The findings indicate diverse opinions among students regarding the use of AI-based tools for improving their English. Notably, some AI applications, such as Chatbots, Duolingo, and AI Snapchat, were frequently mentioned by the participants. Many students preferred these tools because they found them particularly helpful in optimizing their speaking skills. Those who favored Duolingo highlighted its importance in enabling them to speak and providing feedback that helps them self-correct and this validates the first hypothesis.

Additionally, Discord, Cake, and Grammarly were chosen by participants for their positive impact on specific linguistic elements. For example, Grammarly was recognized for its usefulness in improving grammar skills, helping learners develop their accuracy through learning grammatical rules. Discord and Cake were selected for their effectiveness in enhancing fluency and acquiring new vocabulary, so it highly validates the second hypothesis.

Despite the positive feedback, it is noted that some participants were unfamiliar with certain AI tools, such as Cake and Discord. Additionally, some students did not answer questions about making friendships through these AI tools, indicating a lack of engagement with this aspect.

The participants' opinions varied regarding their language proficiency levels before and after using these applications. Some reported being excellent without using the tools, while others indicated they were very good or poor both before and after usage. However, the majority rated their proficiency as good.

Regarding the setting in which these tools were used; most participants stated they used AI-based tools both inside and outside the classroom. It was also noted that many students did not receive support from their teachers to utilize these new technological tools, with several reporting that their teachers did not encourage the use of AI tools to optimize their English language learning inside the classroom.

2.7. Practical Implications

Based on the previous findings of the study, we suggest some practical implications that may help students overcome difficulties or obstacles during the learning process and achieve academic success.

- 1. Addressing Time Limitations:** One major issue students face is the limited time available to absorb information from teachers and practice adequately within the classroom. AI-based tools can help mitigate this problem by providing additional activities, correcting

mistakes, and offering instant feedback, thereby extending learning opportunities beyond the classroom.

2. Overcoming Psychological Barriers: Some students experience psychological barriers that hinder their ability to learn effectively. AI-based tools can help address this issue by offering a virtual environment for learning, which can be particularly beneficial for those who are anxious about face-to-face interactions and making mistakes.

3. Tailoring to Individual Needs: With a variety of AI-based tools available, students can choose those that best suit their specific needs or study goals. For example, students looking to improve their speaking skills can use conversational tools, while those aiming to expand their vocabulary can use vocabulary-building tools.

4. Enhancing Enjoyment in Learning: Integrating AI-based tools can make the learning process more enjoyable by creating a more engaging and interactive educational environment. These tools can foster a sense of community among students, aligning with their interests and being accessible to all, as many of them are free to use. Therefore, AI-based tools can be an effective supplementary method of learning, contributing to academic success.

5. Blending Traditional and Technological Methods: While the traditional methods of learning remain important, the integration of technological tools can provide additional benefits. By combining both approaches, students can maximize their learning potential and achieve better academic outcomes.

By implementing these practical implications, students can enhance their language learning experience, overcome barriers, and achieve their educational goals more effectively.

2.8. Recommendations

Based on the findings of this study, the following recommendations are presented to help students effectively use AI-based tools to optimize their English language learning:

- **Assess Language Proficiency:** Students should first assess their current level in English and identify their specific difficulties in learning the language.
- **Address Language Production Issues:** Students should address any problems they encounter when producing the language and seek suitable solutions.
- **Understand the Role of Technology:** Students should recognize the importance of using technology in learning the language.
- **Explore AI-Based Tools:** Students should explore new technological tools, specifically AI-based tools, to enhance their learning experience.
- **Learn to Use AI Applications:** Students should familiarize themselves with how to use these AI applications to optimize their language proficiency.
- **Match Tools to Needs:** Students should identify which AI-based tools are best suited to address their specific language learning needs. For instance, they might use Duolingo to improve their speaking skills.
- **Engage in Regular Practice:** Consistency is key. Students should use AI-based tools regularly to practice different language skills, such as speaking, listening, reading, and writing.
- **Use Personalized Feedback:** Students should utilize the personalized feedback provided by AI tools to identify areas for improvement and adjust their learning strategies accordingly.
- **Incorporate AI Tools in Daily Life:** Beyond formal study sessions, students should integrate AI tools into their daily routines, such as using language learning apps during commutes or while doing household tasks.
- **Participate in Online Communities:** Joining online communities or forums related to language learning can provide additional support and motivation.

- Students can share experiences, tips, and progress with peers.
Utilize a Variety of Tools: Different AI tools have different strengths. Students should use a combination of tools to cover all aspects of language learning, ensuring a well-rounded approach.
- **Monitor and Evaluate Progress:** Regularly evaluating progress through quizzes, assessments, or self-reflection can help students stay on track and make necessary adjustments to their learning plans.
- **Seek Teacher Support:** Although some students reported a lack of support from teachers, they should actively seek guidance and feedback from their instructors on how to best integrate AI tools into their learning.
- **Stay Updated with Technology Trends:** Technology evolves rapidly. Students should stay informed about new AI tools and updates to existing ones to continuously enhance their learning experience.
- **Balance Technology with Traditional Methods:** While AI tools are beneficial, students should also maintain a balance by engaging in traditional language learning methods, such as reading books, writing essays, and participating in face-to-face conversations.
- **Use AI Tools for Specific Language Skills:** Identify which AI tools are best suited for particular skills. For example, use Duolingo for vocabulary and grammar, Discord for real-time conversation practice, and Grammarly for writing accuracy.
- **Practice Speaking with AI Chatbots:** AI chatbots can simulate real-life conversations, helping students practice speaking in a low-pressure environment and build confidence before interacting with native speakers.

- **Incorporate AI in Group Learning:** Form study groups where members use AI tools collaboratively. This can provide diverse perspectives and enhance the learning experience through peer support.
- **Encourage Lifelong Learning:** Students should view language learning as an ongoing process. Regularly using AI tools can help them continue improving their language skills even after formal education.
- **Promote Digital Literacy:** Understanding how to effectively use AI tools requires a certain level of digital literacy. Students should enhance their digital skills to maximize the benefits of AI-based language learning tools.

Conclusion

In this chapter, the researchers discussed the results obtained from students' questionnaire about the use of AI-based tools and how it optimizes their English learning. Some practical implications and recommendations were provided to overcome the problems that students may face during the learning process.



General Conclusion

The current research work is conducted to figure out second year EFL students' viewpoints about the use of the AI-based tools such as: Duolingo, AI-Snapchat, Dicroids ...etc in optimizing their English language. To address the research questions, the researchers designed a questionnaire for second-year EFL students at Chadli Bendjedid University for the academic year 2023/2024. Both qualitative and quantitative approaches were employed to analyze the gathered data.

The research findings revealed that second-year EFL students at Chadli Bendjedid University actively use AI-based tools to enhance their English language skills. These students engage in various activities such as creating e-interactions with AI on Snapchat, solving grammar exercises using Grammarly, and expanding their vocabulary through Discord. Moreover, tools like Duolingo and Grammarly provided personalized feedback and adaptive learning paths, allowing students to focus on their specific weaknesses and track their progress over time. Indeed, regular interactions with AI chatbots on platforms like Snapchat helped students practice conversational English, thereby increasing their confidence in using the language in real-life situations. Collectively, these tools contribute to improving the students' fluency in English.

In conducting this research, some practical implications and recommendations were proposed for EFL students. These suggestions aim to provide an updated and beneficial experience when using new technological tools. Therefore, future researchers can further explore and define these recommendations in various ways.

References

- ACTFL.(2017).*English language learning optimization and Technology*. Language connects.Retrieved from www.actfl.org
- Dunn,A. (2023).*Emergence and development of AI_based tools in language learning*.Elearning Industry.
- Godwin_Jones ,R.(2021).Types of AI_based tools in learning . Evolving Technologies for Language Learning.Retrieved from <http://hdl.handle.net/10125/73443>.
- Kabella,L.(2024).*Optimizing the language skills*. Top Universities.Retrieved From www.Topuniversities
- Mavropoulou,E.(2023).*The Integration of AI-based tools into language learning frameworks*. Panagiotis Arvanitis. Retrieved from www.Researchgate.com
- Miljević,A.(2021).*Types of AI_based tools in learning*. Retrieved from https://www.teacheracademy.eu/course/ai_tools_for_language_teachers/#all_sessions
- Oxford Dictionary .(2024).Definition of optimization in language learning.*Oxford University Press*.Retrieved from [Www.oxfordreference.com](http://www.oxfordreference.com)
- Redfern,A.(2024).*Types of AI_based tools in Learning*.Fact checked .Retrieved from Languatalk.com
- Smith,F.(2020). Historical overview of language learning technologies.AZ Quotes.Retrieved from <https://www.azquotes.com/quote/671>.
- The National Museum of Language .(1980). *Language acquisition*.Retrieved from Language_museum.org
- Zucchet,E.(2023).*Evolution of language learning strategies* . Retrieve from www.berlitz.com

Appendices :

Appendix A :Students' pre_questionnaire

Appendix B : Students' questionnaire

Students' pre_questionnaire

Dear Students,

We are conducting a research about the use of AI- based tools among university students and, hence, we are wondering if you could support us by answering the following question.Please try to be as sincere as possible ; your answer is so valuable for our research.

What kind of the following AI tools do you use in enhancing your English language ?

- Chat bots Duolingo Reverso Quillbot Grammarly
- Tutor AI Perplexity Otter AI Kahoot

Others,specify :.....
.....
.....

Student's Questionnaire

Dear students,

We are master 2 students and we are conducting a research work about «Optimizing English language learning via the use of AI_based tools among university students». This is an anonymous questionnaire; there are no identifiers that can disclose your identity. Thank you for taking the time to complete this questionnaire. Your time and efforts are greatly appreciated!

1_ What do you think about your level in English?

- Excellent.
- Good.
- Average.
- Poor.

2_ Do you know the AI_based tools?

- Yes.
- No.

3_ What kind of the following AI_based tools do you use in your English language learning?

- Duolingo.
- Chatbots.
- Discord.
- Grammarly.
- AI snapchat.

Others ,

specify.....
.....
.....

4_ What specific AI tools or applications have you found most effective in improving your English language skills?

.....

.....
.....
5- How did you find the use of the AI_tools in your English language learning?

- Very Helpful
- Helpful
- To some extent
- Helpless

6_ How many times do you use the AI tools in learning the English language ?

- Always.
- Sometimes. • Rarely • Never.

7_ Do you think AI tools have positively influenced your speaking, listening, reading, or writing skills in English?

- Yes.
- No.

explain:.....
.....
.....
.....

8_ Do you think that speaking asking interaction with a virtual person using snapchat is more comfortable than dealing with a real person ?

- Yes.
- No.

9_ If yes , Do you have psychological barriers that limit you to speak with a real person?

- Yes.
- No.

Justify.....
....

10_ What do you think about your vocabulary, punctuation, and accuracy after using Grammarly, Duolingo and cake apps?

- Excellent.
- Very good.
- Good.
- Poor.

11_ Do you use the Discord app when learning how to speak?

- Yes
- No

If yes ,What kind of topics did you tackle when using it

?.....

12_ Do you think that the use of Reverso app to correct your mistakes and reformulating your sentences help you improve your level in English ?

- Yes
- No

Jsutify:.....

13_ Where do you use the AI_ based tools?(the setting).

- Inside the classroom .
- Outside the classroom.
- Both.

14_ Do your teachers support you to use these AI apps in your learning?

- Yes
- No

If yes, How

?.....

15_ Did you make friendships from these apps ?

- Yes.
- No.

If yes , how can these relationships be a tool of help in enhancing your English?.....

.....

16_ To what extent do you believe AI-based tools have contributed to your overall motivation and engagement in learning English ?

17_ Have you noticed any remarkable improvement when using these AI tools ?

- Yes.
- No.

justify.....

.....

.....

.....

18_ In your opinion, do you highly recommend the use of AI-based tools among students in order to improve their English language learning?

.....

.....

.....

.....

Thank you for your collaboration !