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Scrutinizing the impact of chat GPT on students' learning process: case of second year EFL master students at the University Centre of Naama

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Scrutinizing the impact of Chatgpt on student's learning process

أصرح بشرفي أني ألتزم بمراعاة المعايير العلمية والمنهجية ومعايير الأخلاقيات المهنية والنزاهة الأكاديمية في إنجاز البحث المذكور أعلاه .

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أصرح بشرفي أني التزم بمراعاة المعايير العلمية والمنهجية ومعايير الأخلاقيات المهنية والنزاهة الأكاديمية في إنجاز البحث المذكور أعلاه .

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توقيع المعني

Dedications

In the name of Allah, the most gracious, the most merciful.
This dissertation is dedicated to my parents for their endless love, support throughout my life and encouragement.
To my beloved Mistou for his presence at all times and making bad ones more charming.
To my beloved sisters Tita and Melloula.
To my beloved brothers especially Mouhammed and to all those who love me.

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God, the night is not good except by thanking you, the day is not good except by obedience to you, and the moments are not accepted by remembering you.
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To the source of tenderness my dear mother
To my brothers, sisters, my beloved ones, and my friends.
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Abstract

Earlier, many researchers relied on traditional methods to perform their researches mainly through the use of libraries, paper references, scientific journals or direct interviews with experts in the field being researched and collecting information from them. These methods often required time and more efforts. In contrast, today's generation especially students at universities depend more on advanced technologies and digital tools, they relied mostly on AI applications and online databases to perform the majority of their tasks. Accordingly, the aim of this study is to scrutinize the effects of the innovative application Chat GPT on EFL learners' learning process. To approach this topic, a descriptive analytical approach was adopted. In order to perform this research, a questionnaire was distributed among twenty second-year students and an interview was scheduled with eight teachers fromthe English department, University Center of Naama. The obtained findings have revealed that Chat GPT application has a noticeable impact on students' learning process.

GPT: Generative **P**re-trained **T**ransformer

EFL: English as a **F**oreign **L**anguage

AI: Artificial **I**ntelligence

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General Introduction

General Introduction:

Recently, Artificial Intelligence represents an interesting and exploratory field that has significantly and practically contributed to reducing human efforts, in fact, the goal of its establishment is to develop systems and softwares that have the ability to learn and think in a way similar to humans, and it is expected to play a greater role in future transformations and developments in daily life.

According to Wafaa Dhifallah "AI is one of the branches of computers and one of the basic pillars on which the technology industry is based, it depends on the computer simulating the characteristics of human intelligence, such as the ability to think, learn, or understand" Arab journal for scientific publishing Hence, AI is considered as the heart of computing with its main goal of creating models that come closer to the lives of humanity , AI applications through their integration into education , contribute to providing personalized education by providing interactive content and continuous support through virtual assistants , which makes education more effective and comprehensive .

In this context, Chat GPT emerges as a revolutionary and innovative linguistic model that was developed by an AI company to interact naturally with users, provide a variety of information, and assistance on various topics, provide conversations and simulate real situations to help students apply their language skills in realistic contexts.

Therefore, the major aim of this study is to scrutinize the impact of AI Chat GPT applications on students' learning process and to demonstrate if their inclusion to the learning process would be beneficial or detrimental for the students' learning skills. In this respect, this research has raised the following problematic of to what extent do chat GPT application impact students' learning process?

Thelatter is divided intothree sub-questions:

1. How does the educational process depend on Chat GPT ?
2. Is the integration of Chat GPT within education, beneficial or detrimental to students' learning.
3. Can the AI Chat GPT application protect users' security or private data?

In order to answer the questions above, the following hypotheses were formulated to be tested:

1. It is hypothesized that AI could be a basic pillar and a major support for the educational process.
2. It is hypothesized that AI Chat GPT could be beneficial and detrimental at the same time.
3. It is hypothesized that AI Chat GPT could protect users' private data with the security updates.

General Introduction:

Second year Master students from English department, at University Center of Naama with a group of EFL teachers were chosen as sample population using the mixed-methods approach, which includes the use of both quantitative and qualitative approaches for the sake of collecting data.

For the purpose of scrutinizing the impact of chat GPT application on students' learning skills. The present dissertation is divided into two chapters, the first theoretical chapter includes the key concepts that cover the aspects of this study, which consists of the importance of teaching and learning English as a foreign language in Algeria, the use of AI for academic purposes, the history of AI including its stages and characteristics, then, the importance of the integration of AI in English teaching and learning processes including gamification as a crucial learning method. The last point is about the use of Chat GPT as a new educational model, its applications and its integration to the English and learning processes, and by the end this chapter dealt with differences between AI technology and human technology.

Besides, the second chapter adopts a practical approach which includes the data collection, analysis, and discussion of the findings. Data was collected using two tools of research, a questionnaire and an interview. Population sampling was used for selecting twenty second year Master students and eight EFL teachers to be the subjects of this study. This chapter ends with analysis of data and interpretation of the findings.

Chapter One : Literature Review

1.1. Introduction

1.2. The Importance of Teaching and Learning English as a Foreign Language in Algeria

1.3. The Use of Artificial Intelligence for Academic Purposes

1.4. History of Artificial Intelligence

- **1.4.1.** Stages of AI Development
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- **1.5.1.** Gaming or Gamification

1.6. The Use of Chat GPT as a New Educational Model

- **1.6.1.** Chat GPT Applications
- **1.6.2.** Integration of Chat GPT in the English Teaching and Learning Processes

1.7. Differences between AI Technology and Human Technology

1.8. Conclusion

1.1. Introduction

In the modern era of technology, the world is witnessing remarkable development in the field of Artificial Intelligence including the ways in which AI can contribute to education. In this vein, Chat GPT is one of the prominent models of AI that uses deep learning techniques and artificial neural networks to understand and generate texts in a natural way.

Besides, the effectiveness of technology in education depends on its ability to provide improved and optimized learning experiences for students. Hence, Chat GPT can become a powerful tool for teachers to enhance the teaching experience and provide additional support to students in virtual classrooms and across online educational platforms.

1.2. The Importance of Teaching and Learning English as a Foreign Language in Algeria

EFL is an abbreviation for English as a foreign language, Yoko Lawli definedEFL as: “the process of learning English language in non-English speaking countries”. (Lawli, 2011) In this vein, Algerian people who learn English in schools are called EFL learners. EFL is intended for students whose native language is not English, and who learned it through education. The methods of learning it vary as they are many at schools and universities as the main environments of its learning. Hence, learning the English language aims to ensure and improve the communicative process between different people as well as between different cultures.

Today, the English language is considered the language of the world and a vital tool of great importance, as it is a global language for communication, particularly across diverse cultures. Intercultural communication depends on language, nonverbal signals, and cultural customs. Language expresses identity and traditions, and in addition, cultural customs. Therefore, understanding these elements and adopting strategies such as intercultural awareness and active listening helps improve intercultural communication,

Last year and for the first time in Algeria since the independence, the educational sector moved towards teaching the English Language at primary schools. In July 2022, Algerian President Abdelmadjid Tebboune announced that the authorities would add

English language to the primary school syllabus. He declared at a news conference on July: “French is a spoil of war, while English is the language of research and science, and it must be taught and given more attention”.

According to Ayed Abdelkarim “why do we isolate ourselves from the worldand only care about the French Language? We must be open up (Ultra Algeria website, 2022), the French language is the language of the colonizer, and even the Francophone countriesgave great value to the English language due to its position in the world and expanded thescope of its user in all the world.

Teaching the English language at primary schools in Algeria aim to enhance basic linguistic comprehension skills. In this context, teachers seek to introduce students to the English Language and encourage them to interact with it, in various contexts ensuring the building of a strong foundation of their language skills to achieve great success in future.

Different Language skills are taught in the Algerian curriculum of the English language at middle and secondary schools; The basic of the language is learnt at middle school moving gradually to further aspects such as lexis, phonology, and grammar till secondary school. Messker 2014 Asserts that teachers lean on textbooks to teach English and its cultural aspects. important resources are collected in books that are relied upon by teachers; they contain various topics and activities aimed at developing and improving learners’ learning skills. (cited in Garton & Graves, 2014).

Algeria's official syllabus for teaching English outlines four main objectives: socio-cultural, humanistic, educational, and academic. These objectives aim to develop mental abilities and skills, which are crucial for efficient language acquisition, through all curriculum subjects. Besides, this syllabus emphasizes the importance of knowledge, comprehension, application, analysis, synthesis, and evaluation in effective verbal and non-verbal communication and adaptability to various contexts and situations. (Slimani, 2016)

At University level, English is introduced into different curriculum at different departments, either as a main subject mainly in the English department through which students are required to attend the fundamental modules including Literature, Civilization, Linguistics, Phonetics, Oral Expression, Written Expression, and other

transversal modules. As it can be taught as an additional but Compulsory module at all other departments and their students are required to follow ESP courses depending on their area of research and their needs as well.

According to Wanphet and Tantawy **"**English has evolved from being a foreign language to the language of academic disciplines in tertiary education **".** English speaking countries have contributed greatly to the development of globalizationwhich has affected the entire world until English language has become a major language. (Wanphet and Tantawy, 2018)

In addition, Lakhder Maddah believes that the trend to adopt English at higher educationsector is primarily due to a pedagogical need (Ultra Algeria, 2023), English has become the primary language in the higher education sector, making it easier for students to participate in the global academic community; The Algerian Ministry recently urged all teachers of diverse specialties to teach in the English language and to use it as the major language in all conferences and study days, and in defending doctoral theses; Even, it is considered as the most prevalent language of research, the majority of teachers tried to write articles purely in English whether in scientific or literary specialties.

1.3. The Use of Artificial Intelligence for Academic Purposes

Artificial Intelligence consists of two words, Intelligence and Artificial, each of which has meaning; According to Websters dictionary: Intelligence refers to "the ability to understand new and changing circumstances or situations, that is the ability to perceive, understand and learn new situations or circumstances; in other words, the key to Intelligence are perception, understanding, and learning"; As for the word Artificial it "is linked to the verb to make or to create, and thus the word is applied to all things that arise as a result of the activity or action that takes place through the artificiality and formation of things as distinct from the things that actually exist and are generated naturally without human intervention". (Merriam Webster dictionary)

Obrien defined AI as: "a science and technology based on a number of cognitive fields, such as computer science, mathematics, biology physiology and engineering which aims to develop the functions of computers to mimic human intelligence". (2022)

thinking, learning and acting independently and mimicking human intelligence.

Alain Bonnet (1993) added: "AI is a science concerned with the cognitive processes that humans use to perform actions that are considered intelligent, and developing computer programs capable of simulating intelligent human behavior". (World of knowledge magazine, 1993) AI, thus, reveals the science of studying the human mind. Therefore, many countries around the world, including Algeria; are seeking to develop their own strategy for developing intelligenceartificial technology and its use in various fields; mainly in scientific research.

1.4. History of Artificial Intelligence

In the mid of twentieth century, few scientists began exploring a new approach to build intelligent machines based on recent discoveries. The beginning of the emergence of this field dates back to the early fifties of the last century, the first recorded event in the field of AI was the publication of a scientific research entitled "Computing Machinery and intelligence" to the British mathematical world Alan Turing, he invented a test consisting of questions asked by a person who knows the judge, and addressed to another person, and to a computer at the same time, if the judge is unable to distinguish between a person and a computer, then the computer passes the intelligence test and is classified as intelligent, but this was only a primitive idea about this science. (Effendi, 2007).

1.4 .1. Stages of AI Development

The time periods of AI development can be divided into 3 stages:

- The first stage arose immediately after the end of World War two, and the scientist Shannon began it in 1950 with his research on the game of chess, and it ended with the scientist vision in 1963.
- The second stage or the Poetic stage, which began in the mid-sixties to the mid-seventies, where the scientist Minsky made frames to represent information, and the scientist Wengrad developed a system for understanding the English Language, such

as stories and conversations, and the scientist Winston summarized everything that had been developed at the Massachusetts Institute of Technology.

- The third stage or the modern stage, which began in the mid-seventies and wascharacterized by the emergence of various technologies that address many applications,which actually led to the transfer of a large part of human intelligence to computer programs, and it is considered the golden one. Al –Sharqawi Muhammad Ali, year.

AI has appeared since ancient times, and in order to become developed, it has gone through several stages and is still developing further, Experts have a future outlook on its improvement of the quality of life and the progress of society, as it has brought about a tremendous revolution in various fields.

1.4.2. Characteristics of AI

AI is a field of computer science whose tasks are keen to develop systems similar to the human mind. For this reason, it has many characteristics to make it more powerful and advanced, to pave the way for improving efficiency and innovation in various aspectsof life. Some of these characteristics:

- Machine learning: Means the ability to absorb data from multiple sources, such as images, texts, videos, and then use them to train smart models to make decisions in the future
- Problem Solving: Analyze problems using logic and find solutions to unfamiliar problemsusing its cognitive abilities.
- Interaction with humans: include the ability to understand natural language and respond touser instructions and inquiries intelligently and effectively.
- Forecasting: Includes the ability to use historical data to anticipate future events, and take necessary actions based on those predictions.
- Adaptation and development: It includes the ability to adapt to technological changes and developments in the field of AI and continuously improve performance. (Tachtarget , 2024)

AI represents a source of power and flexibility, and its characteristics combine to formthe basis for improving many areas, including language learning skills. Its continuous evolution and ability to adapt give it a vital role in driving innovation and progress.

1.5. Importance of AI in English Teaching and Learning Processes

AI represents a paradigm shift in the field of teaching and learning the English language, as it contributes to improving the learning experience by providing personalized and effective interaction for each student, it allows accurate analysis of students' data, preferences and learning styles, combined with. Thanks to AI, integrated educational content can be provided, which enhance the effectiveness of the learning process and contributes to developing students' skills comprehensively and continuously.

According to Mukhtar: "AI helps in making many discoveries and developments in scientific fields, AI algorithms can process information faster and more efficiently than humans, which opens the horizon for a deep understanding of complex phenomena" (Mukhtar ,2020).

1.5.1. Gaming or Gamification

Incorporating games into teaching, contributes greatly to eliminating boredom from lessons. They contribute to create a collective atmosphere in the classroom and for its part create fraternal trust among students and open the students' minds with more ideas and positive energy.

Games in EFL classrooms are an effective way to integrate learners, and relive stress while learning the language, however, they are not supposed to be just an amusing or fun activity, where the teacher seeks to fill the gap in his classroom, but as a structured framework included within the syllabus that has its own goals and stimulate learners to participate in the classroom (Sarpparaje, 2017).

Integrating games into education can have a positive impact on the learning process and motivate students, learning games are an effective way to make learning fun, which increases student enthusiasm, they also contribute to the development of important life skills such as problem solving, critical thinking, cooperation, and time management, and thus enhance achievement academic and develops the necessary life skills for students.

1.6. The Use of Chat GPT as a New Educational Model

Chat GPT or Generative Pre-Trained Transformer, is a generative transformer that is pre – trained on various linguistic tasks, also, it is a deep learning algorithm that can generate the human like text by predicting the most likely words. It is, thus, an AI chatbot developed by (Open AI) that was founded in December 2015 by a group of engineers

who work in the field of AI.

Joshb Ersin 2023 defined Chat GPT as “a new language defining technology that uses statistics and reinforcement learning and includes indexing of words, phrases and sentences and can write articles and summarize information” (Ersin, 2023), the application can, thus, be used to analyze natural spoken and written language to provide enhanced userexperiences in various fields such as intelligent robots and digital personal assistants.

Its structure is based on a deep neural network called the Transformer, specifically the GPT model, it consists of multiple layers of self-attention mechanisms and feed forward neural networks, allowing it to understand and architecture generate the human like text based on the input it receives, each layer processes information hierarchically, capturing local and global dependencies in the data, this structure enable it to handle various linguistic tasks, including conversations, summarization, translation, and more.

Chat GPT was created by Open AI, it processes data like a human brain. According to a research paper issued by Open AI, the LLM in chat GPT includes 45 terabytes of plain text (one terabyte is approximately 6,5 million document pages). In addition, Chat GPT uses the transformer neural network to analyze large texts simultaneously, allowing for context-based meaning understanding. For example, “a broken leg” could mean “a broken bone” or it could mean “good luck” at the theater, context helps the system understand the most likely meaning. Hence, the network, then, performs pre-training, analyzing each token in the data set and predicting the next word inthe sequence. For example, the word “going” is often followed by the preposition “to”. (Semurush Team, 2023).

1.6.1. Chat GPT Applications

Chat GPT applications are a group of diverse and integrated tools that aim to facilitate daily life and achieve goals effectively whether those goals are related to organization, inspiration, knowledge or entertainment.

Table 01. Chat GPT Tools and Purposes

Tools	Purposes
GPT3	It was defined by OpenAI is currently the most advanced GPT chat model, and can generate human-like responses including text completion, translation and summarization.
GPT 2	It was developed by Open AI and is able to create consistent and linguistically correct responses, including translation and summarization.
GPT 1	It was released by Open AI, but it is less effective than GPT2 and GPT3, but it still has the ability to create consistent text and answer questions.
Convert text to T5	Developed by Google, it is a model capable of performing a wide range of natural language processing tasks including translation, text summarization, and answering questions.
Encryption representations (BERT)	Developed by Google, BERT is a GPT model that is adept at understanding the context of words in a sentence, making it suitable for tasks such as sentiment analysis and natural language understanding.
Pre-training for language understanding (XLNet)	Developed by Carnegie Mellon University and Google, it is a GPT chat model that is adept at dealing with text and performs several tasks such as document classifications and text summarization.
Language model (CTRL)	It was developed by Sales force and is used for text generation completion tasks.
RoBERTa	It was developed through Facebook's AI research and has been used for tasks such as language modeling and text classification.

Hendy A. How good are Chat GPT models at machine translation, 2023

According to (Liu, 2021), the Chat GPT application can take advantage of vast data stores and effective generalization to understand and interpret user requests; The ability of the Chat GPT to generate human –like language and accomplish complex tasks is an important innovation in the field of natural language, Chat GPT tools vary in degree of sophistication and can handle a wide range of texts, answer simple questions, and accomplish more advanced tasks.

1.6.2. Integration of Chat GPT in the English Teaching and Learning Processes

Language is generally based on four basic skills that are interconnected with each other including, listening, speaking, reading and writing. The Use of chat GPT as an educational model can enhance both listening and speaking skills through practicing conversations, learning linguistic expressions, and expanding vocabulary. Additionally, it can improve, reading and writing skills through various methods. These include practicing creative writing on different topics, improving sentence formation, vocabulary

and grammar, and expanding the overall field of vocabulary.

However, there are some of the countries that have banned and others restricted the use of chat GPT, and the list is increasing with the developments of the GPT bot. In this context, Elgersma (2023) stated: “this application opens the way for scientific and literary plagiarism, where the students submit articles generated by AI as their own articles”.

Hence, its integration to the learning and teaching processes represents a complex and critical issue because it makes students relying completely on AI-generated data without making efforts to independently search for and complete their tasks.

Hence, this over-reliance can hinder the development of research skills and critical thinking which are two basic pillars for the academic growth and lifelong learning. Accordingly, students should incorporate wisely Chat GPT applications into their educational settings.

1.7. Differences between AI Technology and Human Technology

According to Priya Pedamkar:

> Intelligence represents the mind’s ability to think to learn and solve various problems,and naturally integrates many cognitive functions such as: perception, attention, planning,and language. It is also used to measure social outcomes such as educational attainment and job level. (Priya, 2021)

Intelligence is the mental ability that enables an individual to think effectively, solve problems, and learn from experiences, intelligence includes a group of cognitive functions,and it can be said that intelligence plays a fundamental role in determining an individual’seducational and professional achievements.

The table below shows the differences between Artificial Intelligence and Human Intelligence:

Table 02. The Differences between Artificial Intelligence and Human Intelligence

Properties	Human Intelligence	Artificial Intelligence
The ability to use the senses: touch, sight…etc	High	Low
The ability to imagine	High	Low
Adaptability	High	Low
The ability to endure the acquisition of intelligence	High	Low
Ability to learn from Experience	High	Low
Ability to acquire a large amount of external Information	High	Low
Ability to acquire different sources of information	High	Low
Ability to perform complex calculations	Low	High
Ability to transmit Information	Low	High
Ability to do calculations quickly and accurately	Low	High

Najm Abboud Najm, knowledge management, Strategic concepts and Operations, Al-Warraq Publishing and Distribution, Second edition, Amman 2008.

Through the table above, we can notice the differences between the two; Human intelligence is characterized by the ability to sense, imagine, and create while AI has the ability to perform complex calculation and transfer information with ease and great speed, whereas, this requires human effort and time.

1.8. Conclusion

Artificial intelligence is used in several fields, including Chat GPT, which specializes in the educational field. This technology can provide customized support for students and provide them with accurate and immediate information. AI can also contribute to the design of more interactive and personalized learning curricula, as it helps the student depend largely on technology.

Chapter Two: Practical Part data Collection and Discussion of Findings

Chapter Two: Data Collection, Analysis and Discussion of Findings

2.1 Introduction
2.2 Methodology
2.3 Sample Population
2.4 Tools of Research
2.5 Data Analysis
2.5.1 Students' Questionnaire Analysis
2.5.2 Teachers' Interview Analysis
2.6 Discussion of Findings
2.7 Limitation of the Study
2.8 Suggestions and Recommendations
2.9 Conclusion

2.1. Introduction

The main goal of the present study is to investigate the impact of chat GPT on students' learning process. The focus in this part is to test the dissertation' hypotheses that are obtaining students' views about the relationship between AI models and EFL learners, and to show the impact of the chatbot and chat GPT applications on students' learning process.

2.2. Methodology

For the hypotheses' investigation, a descriptive analytical method was chosen to delve into this thesis. Also, both a questionnaire and an interview were used as research tools for collecting data.

2.3. Sample Population

Subjects in this study are twenty second-year students from the English department, they have been studying English for about twelve years, they chose it as a specialty to expand their world in the University stage. They integrated heavily AI and its applications within education, especially the innovative Chat GPT application for the sake of performing researches. In addition, a group of eight EFL teachers were contributed, too, within this study to reveal their attitudes regarding the integration of Chat GPT application for educational purposes.

2.4. Tools of Research

In the present study, a questionnaire was designed to EFL students for gathering data about their attitudes toward using AI applications in their studies, and their preferred methods for acquiring the English language. Moreover, data was also collected using structured interviews with teachers. The three processes were blended throughout the study: collecting, coding, and analyzing data.

2.5. Data Analysis

After data collection, this part of the research will deal with the quantitative and qualitative methods to analyze the gathered data from the two instruments used. The questionnaire was designed for EFL students and the interview was selected and used for EFL teachers. Hence, this part of the study determines the relationship between the results and the raised hypotheses.

2.5.1. Students' Questionnaire Analysis

Q1. Do you have Chat GPT application on your smartphone?

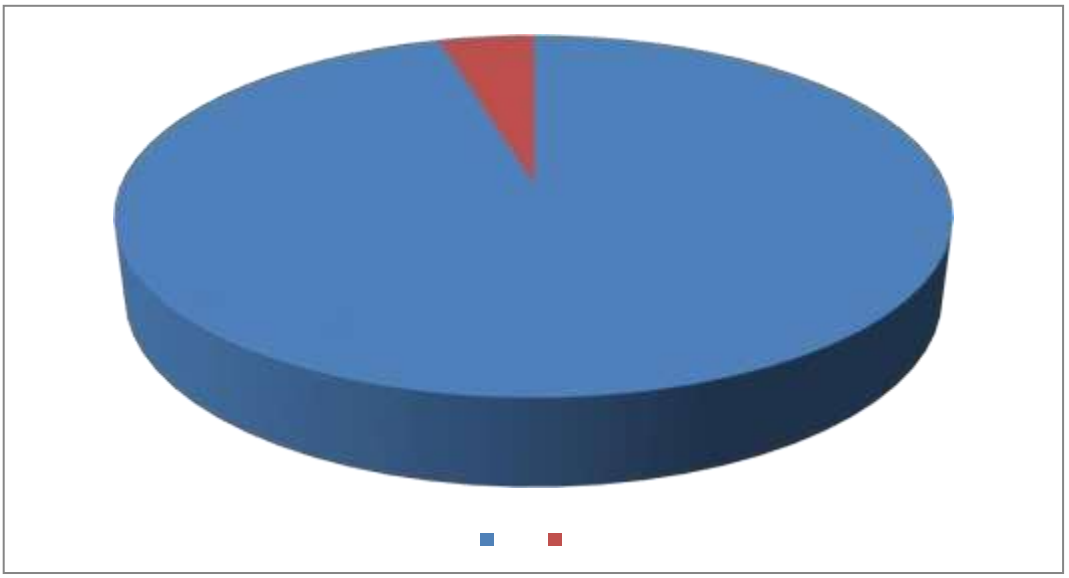

Figure 2.1. Having Chat GPT Application on Smartphones

Almost all the respondents have chat GPT application on their smartphones.

Q2. What is your purpose for using the Chat GPT application?

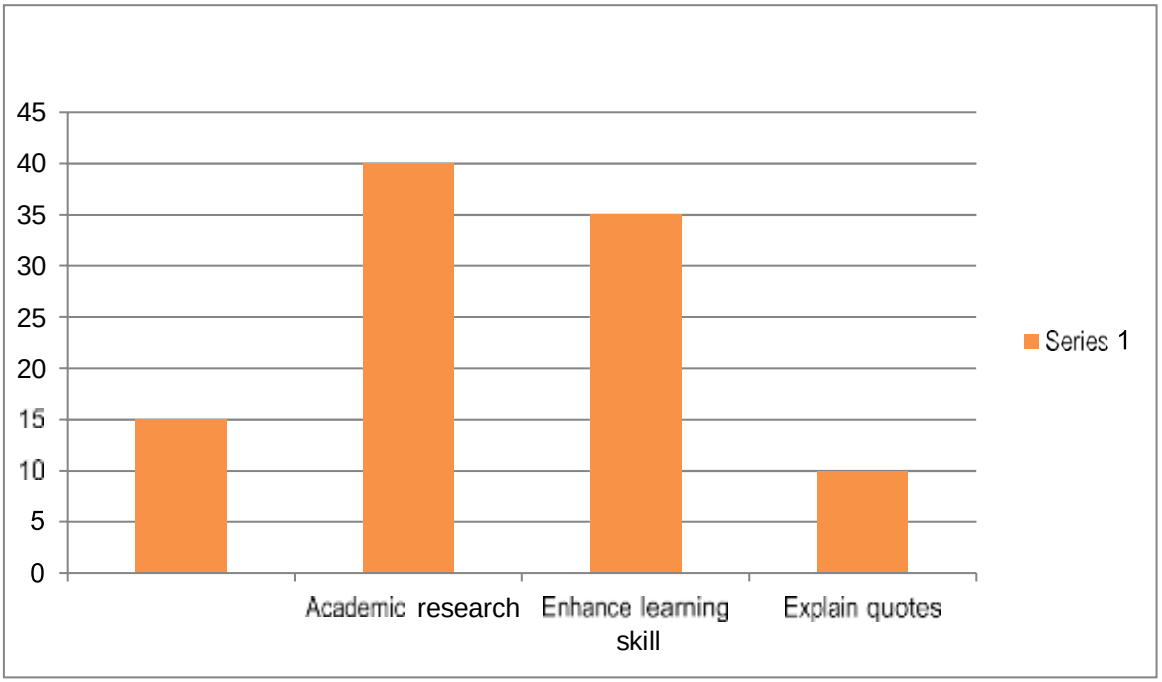

Figure 2.2. The Purpose of Using Chat GPT Application

After reviewing the respondents' answers, we notice that 40% of students use the application for academic purposes to get specific answers, to compose essays, to search for new information about diverse topics. Besides, 35% of students acknowledge that the use of chat GPT enhances their learning skills mainly the writing skill and 10% of them use it to explain quotes.

Q3. Do you use the Chat bot application to create virtual dialogues? If the answer is yes, what is your motivation?

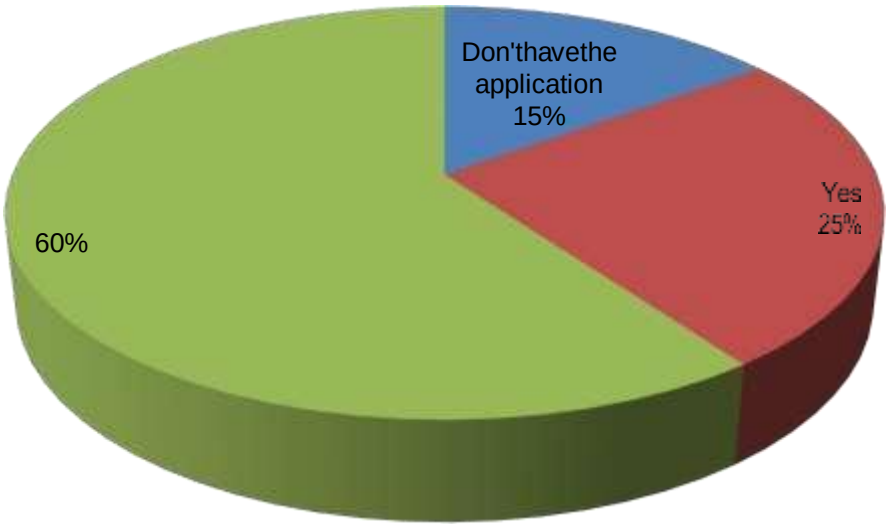

Figure 2.3. The Use of the Application to Create Virtual Dialogues

Minority of students (25%) create dialogues with the application, and this is a distinctive feature of it, as it understands the language in a very natural way, which allows them to gain greater confidence in speaking with others and improve their speaking skills.

Q4. Is the integration of Artificial Intelligence beneficial or detrimental to your learning skills? Explain how?

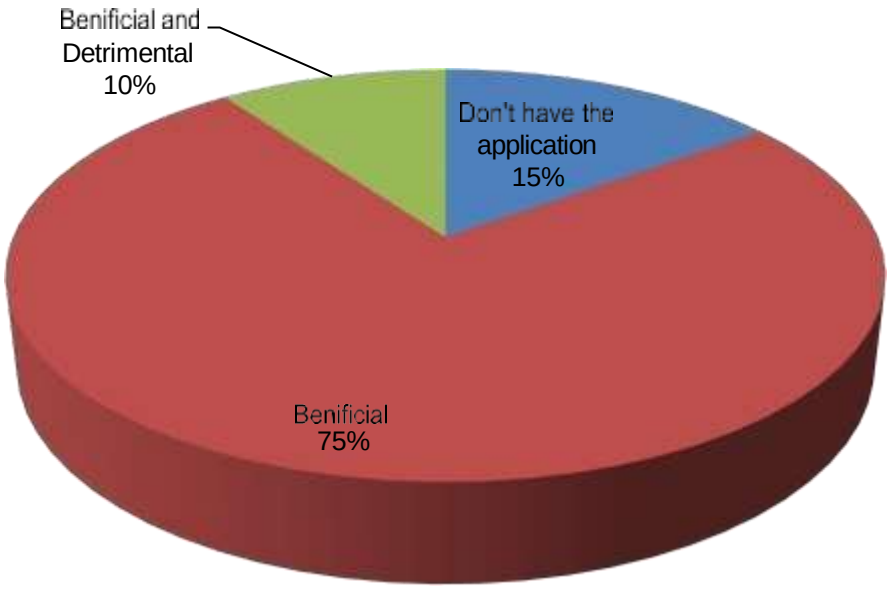

Figure 2.4. Benefits and Disadvantages of the Use of Chat GPT in Education

Most of students with a ratio estimated at 75% believe that the application has a beneficial integration in improving their educational objectives, while 15% were neutral, they find it to be double-edged beneficial and detrimental and 15% haven't the application at all on their smartphones.

Q5. Do you believe that playing games for educational purposes is an effective tool?

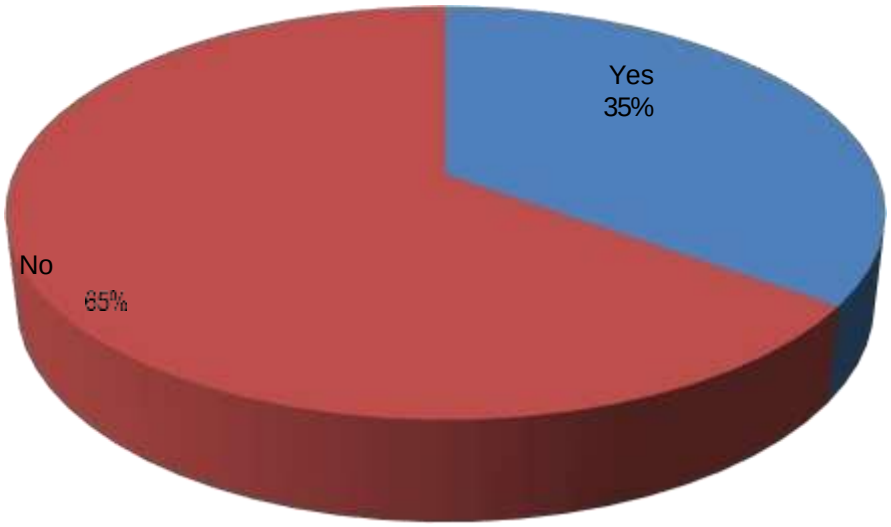

Figure 2.5. Effectiveness of Integration of Games for Educational Purposes

It seems that 65% of students don't know the important role of gaming or gamification in education which increases students' engagement and motivation, enhance their understanding and develop their problem-solving skills and encourage cooperation and teamwork as well as provide immediate feedback to improve academic performances. While 35 % of students agreed on the importance of integrating games into the educational process.

Q6. Are you confident about the application's protection of your private data?

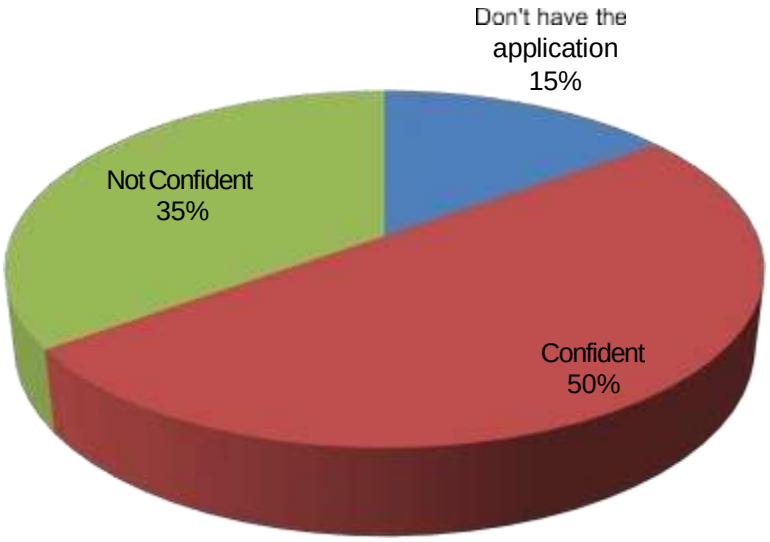

Figure 2.6. Confidence about the Application's Protection

Most students who use the application are reassured that the application protects their private data, and this encourages them to search for anything safely.

Q7. To what degree do you rely on the Chat GPT application?

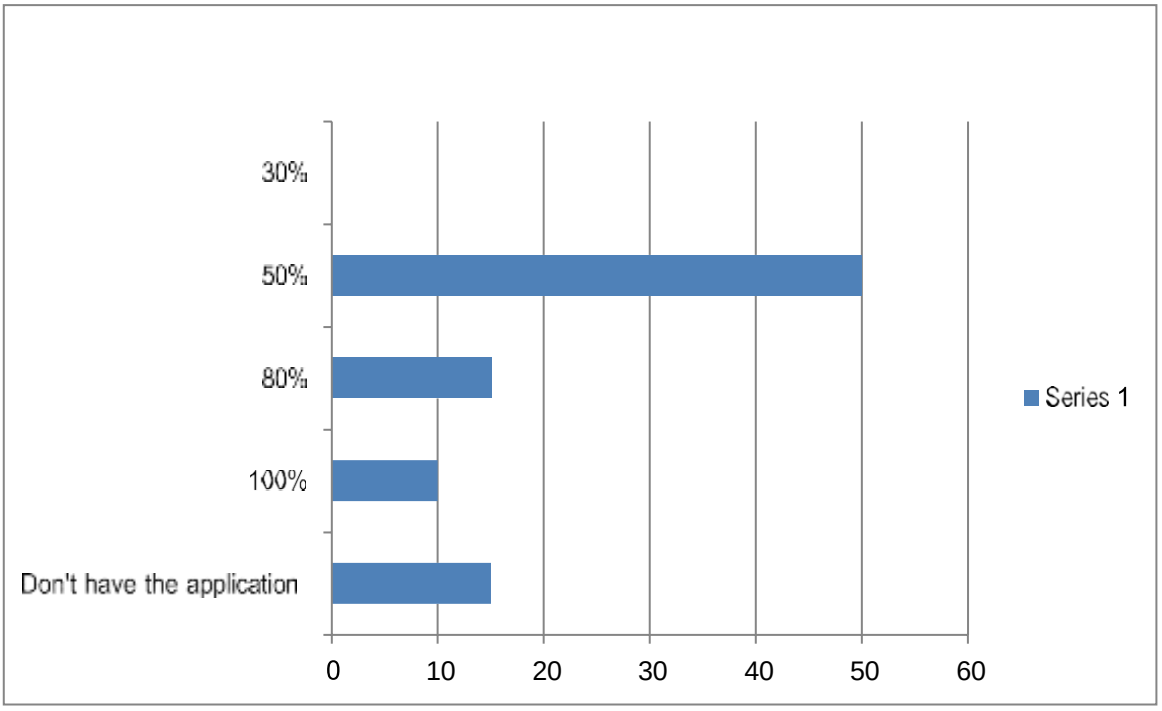

Figure 2.7. Degree of Relying on the Chat GPT Application

Student rely on using the chat GPT application to perform research in a balanced manner, as they resort to it only in times of difficulty and necessary need.

Q8. If you choose between Google and Chat GPT to perform your research, which one would you choose? Explain why?

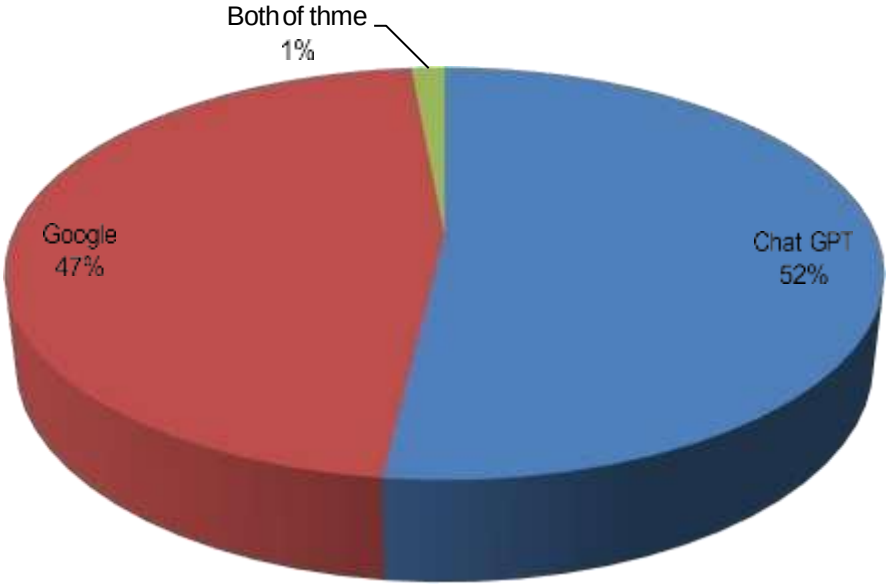

Figure 2.8. Choosing between Google or Chat GPT to Perform Academic Research

Chat GPT application has become a competitor to Google, however, most students preferred not to abandon Google.

2.5.2. Teachers' Interview Analysis

The first instrument for data collection was interview; it was addressed to eight EFL teachers from English department, University Centre of Naama to explore their attitudes towards the integration of chat GPT into teaching process and its impact on students' learnings skills.

Q1. Do you think that students depend entirely on AI applications, or only partially?

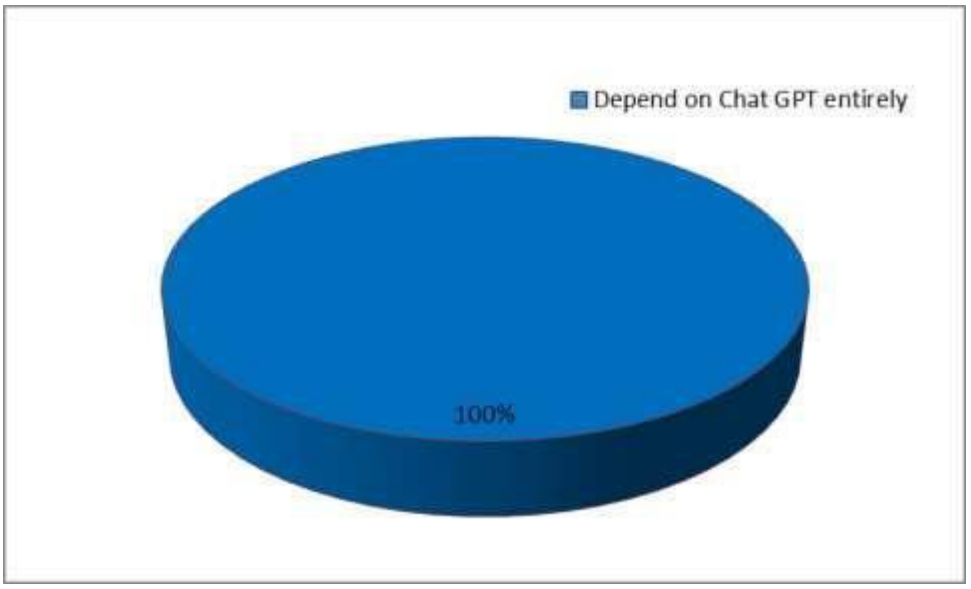

Figure 2.5.2. 01. Students' reliance on the Chat GPT application

The respondents agreed that students depend entirely on AI applications to enhance their learning and develop their skills in innovative ways, so that it has become an essential companion for them.

Q2. Do you think that AI applications have kept students away from reading books?

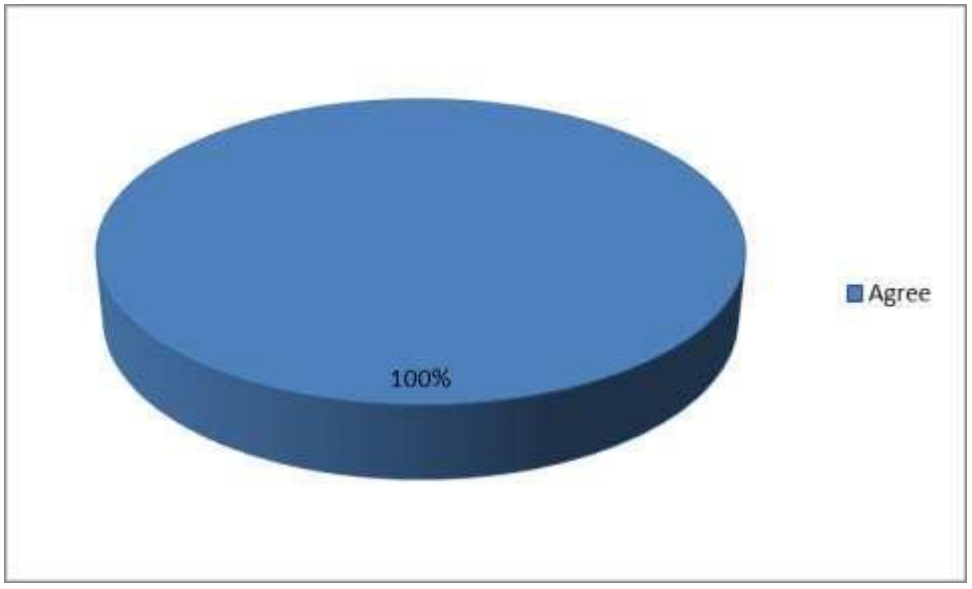

Figure 02 : Students and their distance from books

According to the respondents, AI applications have significantly distanced students from books, AI applications provide innovative educational experiences that differ from

traditional books and give them the opportunity to explore concepts in easy ways to promote better understanding.

Q3. Do you have the chat GPT application on your phone? If yes, what is your objective for using it?

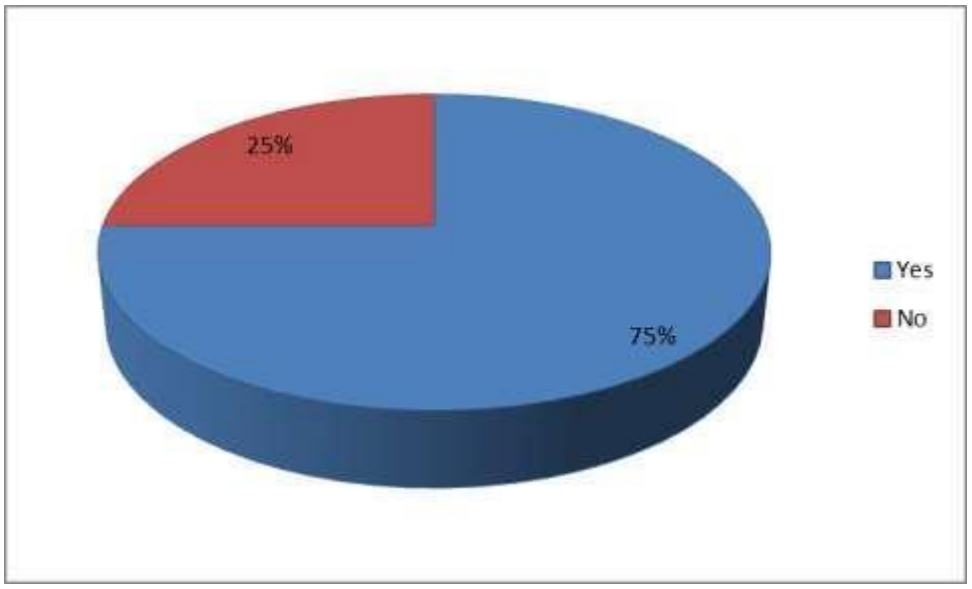

Figure 03 : Teachers download Chat GPT application on their phones

Most of teachers have the application on their phones, for multiple objectives as for solving ambiguous terms. They use it as an educational tool.

Q4. As a teacher, to what extent do you depend on application?

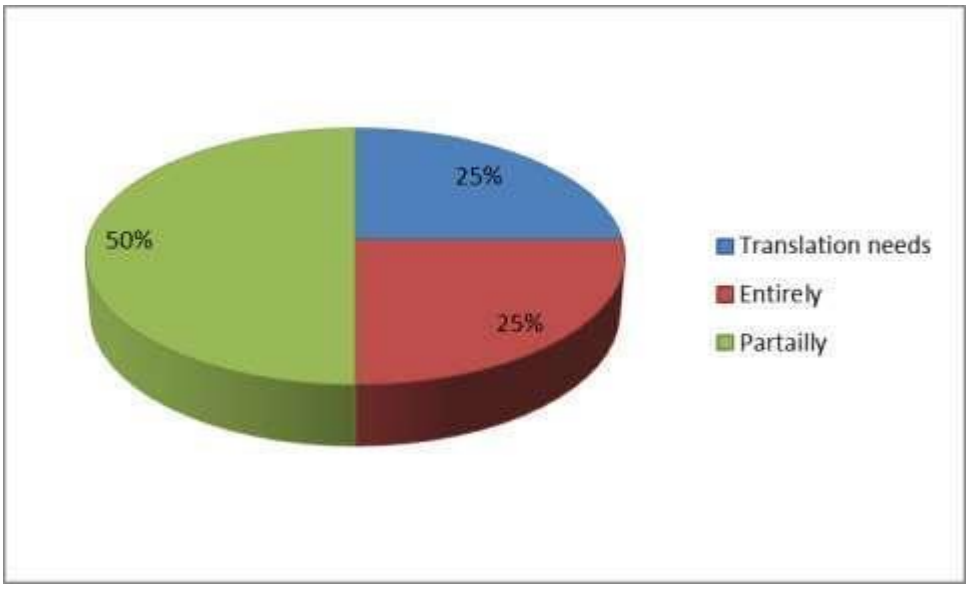

Figure 04 : The extent to which teachers rely on the Chat GPT application

The teachers rely partly on the use of applications for educational purposes.

Q5. Can you differentiate between students' answers and AI answers? If yes, how do you distinguish between both of them?

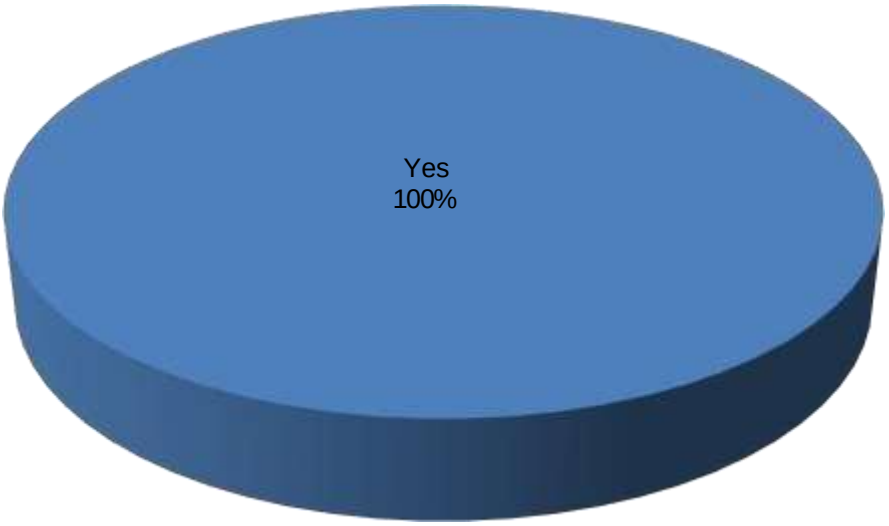

Figure 05: Students' answers and AI answers

The respondents can differentiate easily between the AI answers and students' answers because they see that AI answers are more formal, original and academic and sometimes misleading whereas students' answers are not as perfect as the AI. They can be detected easily through simple use of vocabulary, spelling and grammatical mistakes and some teachers acknowledged that they have the AI detector which facilitates the process.

Q6. How can the teacher integrate gaming as a teaching method?

According to the respondents, gaming or gamification can be included through lectures at the end in the form of funny activities as it can be used through role playing activities like theatres.

Q7. Is the integration of Chat GPT application beneficial or detrimental for students'
learning?

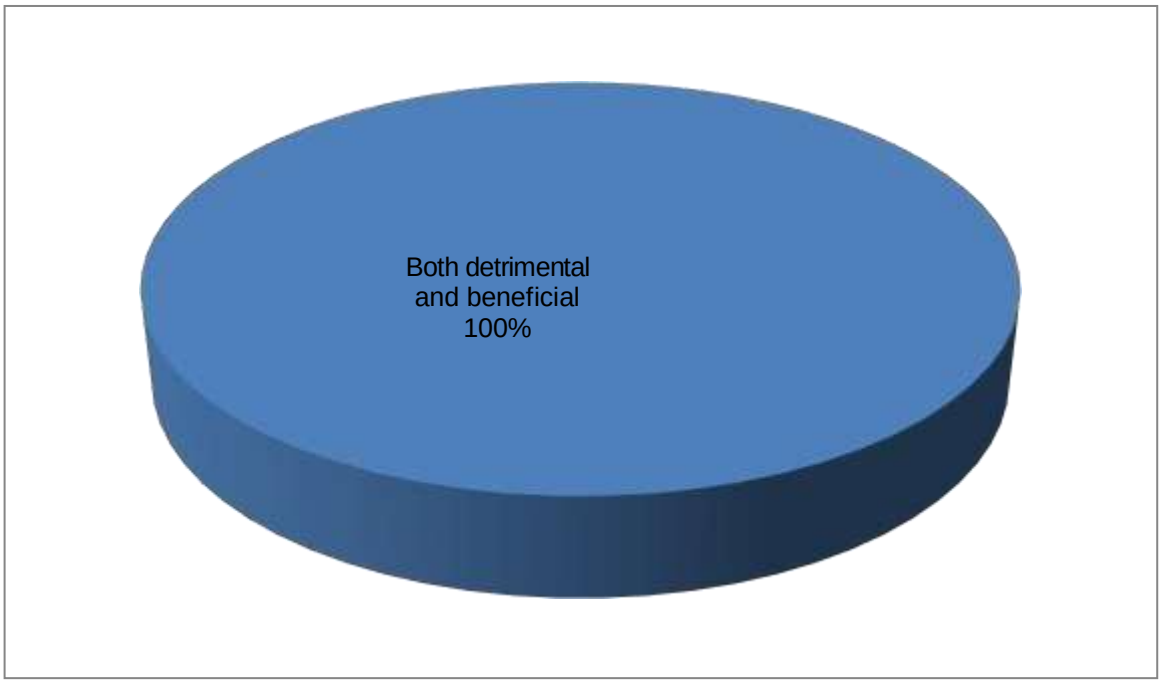

Figure 07 : The detrimental and beneficial Effects of Chat GPT

The teachers agreed that the integration of the Chat GPT application is both beneficial and detrimental, it depends on the way they use it

Q8. Do you think that Chat GPT application helps students improve their writing skills? Explain how?

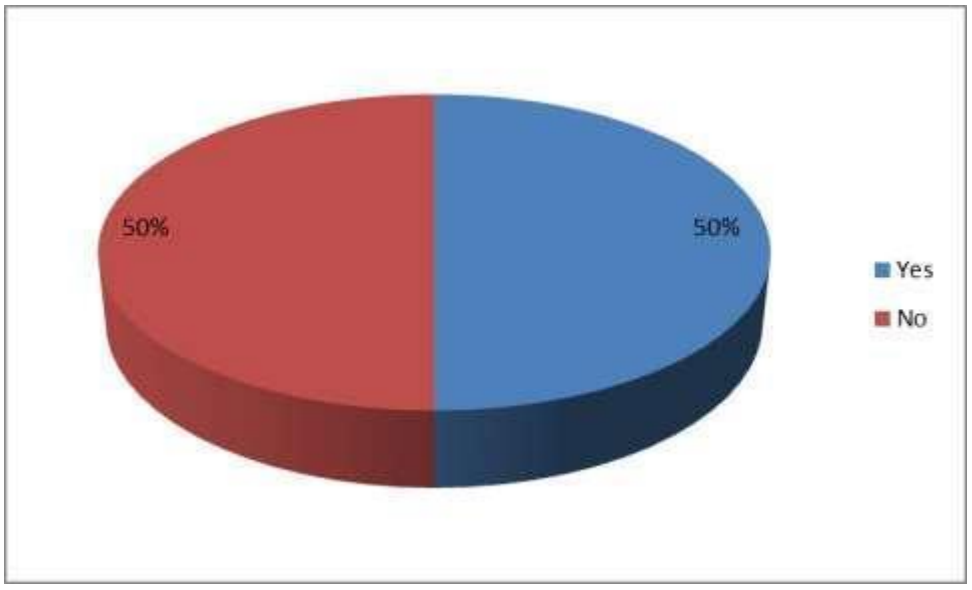

Figure 08 : Chat GPT improving learners' writing skill

Half of the teachers answered yes so that it provides students with new vocabulary, new ideas and a good style of writing; The others disagreed because they believed that

the writing skills depend on the efforts made by the student himself.

2.6. Data Interpretation

The questionnaire was used to have an idea about how students approach with Chat GPT application, and know their attitudes towards using it. For this reason, it was advisable to them to use it in a clever way to avoid all kinds of plagiarism and to find out some strategies which motivate students to enhance their learning skills. The respondents' answers varied and some of them showed that they rely on it for their academic purposes and to create virtual dialogues, the majority of the respondents agreed with the beneficial integration of the Chat GPT to enhance their learning skills, as for the choice between GPT and Google, there was a slight difference in preference for GPT, while some were unable to choose.

It was evident from the answers that the majority of students who use this application are confident with the protection of their private data, and this is relief especially in light of these new developments.

2.7. Limitation of the Study

The study was limited by time, for this reason we could not investigate the role of AI applications in improving the English foreing language and its aspects in depth. Forthe sources, the limited number of books and articles available made it difficult to completethe study.

2.8. Suggestions and Recommendations

- Assess ChatGPT's impact on academic achievement by tracking changes in student grad es, test scores, and project outputs.
- Understand how Chat GPT impacts student interest and excitement for learning.
- Examine how Chat GPT may be used to tailor the learning experience to each learner.
- Improving the use of Chat GPT into Education through analyzing feedback from both students and educators to identify ways to make Chat GPT a more effective educational tool.
- Check the impact of Chat GPT on Students' Academic Performances.
- Conduct studies comparing Chat GPT with other AI tools, traditional tutoring, or peer learning to understand its unique advantages and limitations.

Therefore, we recommend students as well as teachers to use AI applications into their learning and teaching processes.

2.9. Conclusion

In conclusion, this chapter has focused on investigating the relationship between the AI application and the learning process. The questionnaire was used as a tool for gaining insights on the students' attitudes towards Chat GPT application. Results showed that most of the students had positive attitudes towards AI integration within learning. Results confirmed our hypotheses set at the beginning. Hence, students are relying completely on AI applications, especially chat GPT and chat Bot and are using them for educational purposes, to search for knowledge, training and improve their learning skills through virtual conversations. However, despite the positive impact of the applications, it is observed that these applications are keeping students away from traditional methods used to enhance their learning skills.

General Conclusion

General Conclusion

The major aim of using Chat GPT is to enhance the learning process. Chat GPT creates virtual dialogues similar to human language which understands humans, correct their mistakes, and give them accurate answers which in turn help to improve their learning skills. Besides, this study attempted to investigate the impact of Chat GPT in developing second year Master students' learning skills.

The results of the questionnaire revealed that the majority of second year Master students have Chat GPT and Chat Bot applications on their smartphones and rely on them most of the time through creating dialogues. They found that they are beneficial for their learning mainly through gamification as an effective tool which enhances their language skills.

In addition, the results of the interview demonstrate that the use of chat GPT application can be a great helper for students as it leads to improve their learning of the English language, the only thing that they have to consider is to employ it in a clever way and not depend on it totally.

Finally, it is worth noting that this research work opens the doors for further researches that may be handled in different ways and tackled from different angles and may conduct other AI applications that can improve and enhance students' learning skills. The only thing that students should consider is to be aware of the benefits and drawbacks of using AI applications within education and that they should use it in a clever way to achieve better outcomes. From this, we conclude that the results of this thesis are consistent with the aforementioned hypotheses.

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APPENDICES

Appendix A: Students' Questionnaire

Salhi Ahmed University Center of Naama, Faculty of Letters and Foreign Languages, Department of English

Level: Second Year Master

Dear student,

You are kindly invited to answer this questionnaire, be certain that your answers will remain confidential.

1. Do you have Chat-GPT application on your smartphone ?

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2. What is your purpose for using the Chat-GPT application ?

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3. Do you use the Chat-bot application to create virtual dialogues ? If the answer is yes, what is your motivation ?

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4. Is the integration of artificial intelligence beneficial or detrimental to your learning skills ? Explain how.

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5. Do you believe that playing games for educational purposes is an effective tool ?

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6. Are you confident about the application's protection of your private data ?

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7. To what degree do you rely on the Chat-GPT application ?

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8. If you choose between Google and Chat-GPT to perform your research, which one would you choose ? Explain why ?

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Thank you for your contribution

Appendix B: Teachers' Interview

Dear Teacher,

The present interview is a part of our research for a master degree about the impact of Chat-GPT application on students' learning process. Be certain that your answers will remain confidential and will not serve any other purpose than the one stated above.

1. How many years have you been teaching English ?

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2. Do you think that students depend entirely on AI applications, or only partially ?

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3. Do you think that AI applications have kept students away from reading books ?

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4. Do you have the Chat-GPT application on your phone ? If yes, what is your objective for using it ?

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5. As a teacher, to what extent do you depend on applications ?

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6. Can you differentiate between students' answers and AI answers ? If so, how do you distinguish between both of them ?

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7. Do you use gaming in your classroom as a teaching tool ? If yes, explain why ?

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8. Is the integration of Chat-GPT application beneficial or detrimental for students' learning skills ?

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Thank you for your contribution

Résumé

Plus tôt, de nombreux chercheurs se sont appuyés sur des méthodes traditionnelles pour mener leurs recherches, principalement en utilisant des bibliothèques, des références papier, des revues scientifiques ou des entretiens directs avec des experts dans le domaine étudié, afin de recueillir des informations auprès d'eux. Ces méthodes nécessitaient souvent du temps et plus d'efforts. En revanche, la génération d'aujourd'hui, en particulier les étudiants universitaires, dépend davantage des technologies avancées et des outils numériques. Ils se reposent principalement sur les applications d'IA et les bases de données en ligne pour effectuer la majorité de leurs tâches. Par conséquent, l'objectif de cette étude est d'examiner les effets de l'application innovante Chat GPT sur le processus d'apprentissage des apprenants en anglais comme langue étrangère (EFL). Pour aborder ce sujet, une approche descriptive analytique a été adoptée. Pour mener cette recherche, un questionnaire a été distribué à vingt étudiants de deuxième année et une entrevue a été programmée avec huit enseignants du département d'anglais du Centre Universitaire de Naama. Les résultats obtenus ont révélé que l'application Chat GPT a un impact notable sur le processus d'apprentissage des étudiants.

Mots-clés : Anglais comme langue étrangère, Chat GPT, Intelligence Artificielle, Processus d'apprentissage.

ملخص

في السابق، اعتمد العديد من الباحثين على الطرق التقليدية لإجراء بحوثهم، وذلك أساساً من خلال استخدام المكتبات والمراجع الورقية والمجلات العلمية أو المقابلات المباشرة مع الخبراء في المجال المدروس وجمع المعلومات منهم. كانت هذه الطرق تتطلب غالباً الكثير من الوقت والجهد. بالمقابل، يعتمد الجيل الحالي، خاصة الطلاب في الجامعات، بشكل أكبر على التقنيات المتقدمة والأدوات الرقمية، حيث يعتمدون بشكل رئيسي على تطبيقات الذكاء الاصطناعي وقواعد البيانات عبر الإنترنت لأداء معظم مهامهم. وبناء على ذلك، فإن هدف هذه الدراسة هو فحص تأثير تطبيق Chat GPT المبتكر على عملية تعلم اللغة الإنجليزية كلغة أجنبية. للتعامل مع هذا الموضوع، تم اعتماد نهج تحليلي وصفي ولإجراء هذا البحث، تم توزيع استبيان على عشرين طالباً من السنة الثانية وتم جدولة مقابلة مع ثمانية مدرسين من قسم اللغة الإنجليزية في مركز الجامعة بالنعامة. أظهرت النتائج المتحصل عليها أن تطبيق Chat GPT له تأثير ملحوظ على عملية تعلم الطلاب.

الكلمات المفتاحية : اللغة الانجليزية كلغة أجنبية،Chat GPT ،الذكاء الاصطناعي، عملية التعلم.