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Investigating the Impact of Using ChatGPT on EFL Students' Motivation to Learn.

The Case of Master 1 EFL Students at Mila University Centre.

A Dissertation Submitted in Partial Fulfillment for the Requirements of the Master Degree in
Didactics of Foreign Languages

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Dedication

This work is devoted to my parents and brothers, whose continuous support and strength has

been the cornerstone of my success.

Kamal

This thesis is dedicated to my parents and brothers. for their endless love, support and

encouragement.

Iskander

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Abstract

Artificial intelligence has brought several changes to the realm of education. It resulted in significant improvements in learning English as a foreign language. At the present time, the use of AI systems for learning is steadily increasing. In schools and universities, we have noticed that EFL students rely on ChatGPT, which may have an impact on their motivation and desire to learn. As a result, this research aims to investigate the impact of ChatGPT on EFL students' motivation to learn. Three main research questions were raised: Does the use of ChatGPT increase or decrease EFL learners' motivation to learn? How does ChatGPT influence the intrinsic and extrinsic motivation of EFL learners? Which type of motivation is most influenced by EFL learners' use of ChatGPT? Hence, it is hypothesized that ChatGPT use increases EFL learners' motivation, primarily through instrumental and intrinsic motivation. In order to test the hypothesis, the study employs a descriptive research design with a quantitative approach, utilizing a questionnaire that includes a form of a motivational scale among other questions. It was administered to 58 Master 1 EFL students at AbdElhafidBoussouf University Centre-Mila. The findings suggest that ChatGPT use increases EFL learners' motivation, primarily driven by instrumental and intrinsic motivation. Moreover, participants exhibited a presence of integrative motivation, signifying a deeper interest in cultural and personal development. However, extrinsic motivation appeared to be the least influential aspect. The study concludes with recommendations for teachers, learners, and future research with the goal of focusing on learners' motivation when using ChatGPT in EFL learning.

Keywords: Artificial intelligence, Motivation, EFL learners, ChatGPT, Intrinsic and extrinsic motivation.

List of Abbreviations

AI: Artificial intelligence

AMS: Academic Motivation Scale

CFA: confirmatory factor analysis

EFA: exploratory factor analysis

EFL: English as Foreign Language

ELLs: English language learners

ERG: Alderfer's existence, relatedness, and growth theory.

ESEM: exploratory structural equation modeling

GPT: Generative Pre-trained Transformer

IM: intrinsic motivation

IPA: intelligent pedagogical agent

L2: second language

LLMs: large language models

PCA: principal component analysis

(P): Page

SDT: Self-determination Theory

SRQ-A: The Academic Self-Regulation Questionnaire

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General Introduction

1. Background to the Study

Artificial intelligence has accelerated innovation and revolutionized various industries, including education. AI technology has the ability to revolutionize traditional teaching and learning approaches by providing new tools and applications. AI has numerous applications in education, such as increasing efficiency, individualized training, immediate feedback, and student engagement (Adiguzel, Kaya, &Cansu, 2023). In this vein, Reinders and Wattana (2014), who examined the affective benefits of AI-assisted language learning, found that after six sessions, students' confidence, perceived competence, and willingness to communicate significantly improved, and their anxiety in the game-play decreased. In the field of artificial intelligence, ChatGPT has been the focus of many studies. Firat (2023) investigated the impact of chatbots on student learning outcomes in computer science courses and found that the use of chatbots significantly improved student performance and information retention.

Furthermore, using AI-powered chatbots in education has proven to be beneficial in terms of increasing student engagement and making the learning process more efficient. Research by D'Mello et al. (2012) and Winkler and Söllner (2018) found that chatbots can improve student outcomes, increase interaction, and enrich learning experiences in higher education. In a study (Deng & Yu, 2023), ChatGPT served as a teaching assistant for online students, providing tailored comments and support.Results showed that ChatGPT significantly increased student motivation and engagement. Chatbots are a potentially useful tool for increasing interest and engagement in learning. Moreover, chatbots are computer programs that can communicate with people orally or in writing, giving them a more human feel. Conversational agents can provide instant and personalized feedback, guidance, and support, increasing student motivation and engagement (Patel, Yadav, and Gaurav, 2022).

Additionally, chatbots have been shown to improve student engagement and participation in the classroom. They provide personalized feedback to students, increasing motivation and interest (Johnson, Rickel, & Lester, 2000; Williams &Deci, 1996). According to Zhou and Li (2023), after using ChatGPT, a negative correlation was found between tension pressure and interest enjoyment. Perceived competence had a substantial positive link with interest and enjoyment, whereas perceived value had an insignificant correlation.

2. Statement of the Problem

In the context of education, student motivation is essential for academic success, as it plays a crucial role in shaping students' engagement, persistence, and knowledge retention (Ryan &Deci, 2000; Oga-Baldwin &Sodimu, 2020). While ChatGPT offers exciting possibilities, concerns have been raised regarding its impact on student motivation (Hughes & Robinson, 2021). There are worries that relying on AI technologies for learning might lead to reduced engagement, decreased persistence, and impaired knowledge retention. However, limited research has specifically investigated the impact of using ChatGPT in an educational setting, leaving a significant knowledge gap. Thus, it is important to carry out research that tackles these issues, investigates the possible advantages, and closes the knowledge gap. So that teachers and educational institutions can make well-informed decisions about the use of AI technologies in the classroom while maintaining the importance of student motivation as a key component of the learning process by looking into the effect of ChatGPT on students' motivation.

3. Aim of the Study

The main aim of this study is to investigate the impact of ChatGPT on EFL students' motivation to learn. The specific objectives are to determine whether ChatGPT increases or decreases students' motivation and to understand its impact on various aspects of motivation,

such as instrumental, intrinsic, extrinsic, and integrative motivations. We aim to fill in the existing knowledge gap and to inform educators and institutions about the role of AI-driven tools like ChatGPT in language learning and pedagogy.

4. Research Questions

Building upon the provided background, this study seeks to answer the following research questions:

- Does the use of ChatGPT increase or decrease EFL learners' motivation to learn?

- How does ChatGPT influence the intrinsic and extrinsic motivation of EFL learners?

- Which type of motivation is most influenced by EFL learners' use of ChatGPT?

5. Hypothesis

- ChatGPT use increases EFL learners' motivation, primarily through instrumental and intrinsic motivation.

6. Research Methodology

For the purpose of conducting this study and gathering necessary data, we employed a descriptive research design to explore and understand the complex phenomena of the impact of using ChatGPT on EFL students' motivation to learn. The data was analyzed following a quantitative method. A single questionnaire was designed for Master 1 EFL students in the Department of Foreign Languages at Mila University Centre. Out of the overall population of 115 students, we randomly selected 58 students as the target population for our study. This subgroup was chosen from the larger population, as they represent advanced language learners likely to be motivated to improve their English skills. Their experiences and insights will provide valuable data on the impact of using ChatGPT on their motivation to learn.

While the findings may not be fully generalizable, they will contribute to our understanding of the effectiveness of ChatGPT as a tool for enhancing motivation in language learning within this specific sample.

7. Structure of the Study

The present dissertation consists of two chapters. The first one is devoted to the theoretical background, while the second is for the practical field work. The first chapter is further divided into two sections: The first section introduces ChatGPT, providing an overview of this AI tool. It also covers the emergence of ChatGPT and its use in education, including its benefits and limitations in educational settings. In addition to the ethical considerations when using this AI tool.

The second section starts with an overview of the concept of motivation: its definition, main types, and theories. It also covers the factors that influence the motivation of EFL learners and provides guidance on how to assess motivation. This section ends by presenting the importance of motivation in second language learning. The second chapter reflects the practical field work of our research. The first section clarifies the population and sample studied, the instruments used, and the administration of the questionnaire, while the second section deals with the analysis, interpretation, and discussion of the findings. In addition to the limitations that faced the researchers when conducting this study. At the end of this chapter, some suggestions are provided for future research.

Chapter One: Motivation and ChatGPT in Education

Section one: The Use of ChatGPT in Education

Introduction

This section provides an overview of ChatGPT and its significance in the field of education. It begins with a definition of ChatGPT and explores its evolution and emergence within the context of chatbots and conversational agents. Following that, it highlights the use of ChatGPT in education and explores its benefits and limitations within this domain. Additionally, it addresses ethical considerations pertaining to the use of ChatGPT for student interaction. By the end of this section, readers will gain a comprehensive understanding of the role and implications of ChatGPT in education.

1.1.1. Definition of ChatGPT

In 2019, OpenAI, an American AI company, produced ChatGPT, an AI chatbot. It is a conversational artificial intelligence model that uses a transformer-based neural network to generate human answers in real time, enabling natural language interactions with a machine. The model has been trained on a wide range of topics, making it knowledgeable in many areas (Goar, 2023). ChatGPT integrates various technologies such as deep learning, unsupervised learning, instruction fine-tuning, multi-task learning, in-context learning, and reinforcement learning. It offers a multitude of powerful features (Sridhara et al., 2023).

ChatGPT is derived from the basic GPT (Generative Pre-trained Transformer) model. It has undergone iterative updates from GPT-1 to GPT-4 (Wu et al., 2023). Additionally, Zahi (2022) explained that ChatGPT employs natural language processing, deriving human-like responses to user input, and is renowned for its capacity to generate clear, organized, and insightful replies. Furthermore, it is a computer program that simulates a conversation with

its users, usually via the Internet. The analogy that a chatbot frequently treats a discussion like a game of tennis can be used to characterize a chatbot's conversation flow, which is as follows: message, reply, receive message, respond, and so on (The Oxford Dictionary, 2018).Deryugina (2010) used a nearly identical definition but added the word 'intelligent' before communication, indicating the requirement for intelligent responses rather than random ones. Chatbot technology is also known as chatterbot, conversational agent, conversational system, and intelligent pedagogical agent (IPA). The latter is only used in educational contexts or documents.

1.1.2. The Emergence of ChatGPT

Open AI launched ChatGPT, a general-purpose conversation chatbot, on November 30, 2022, with the expectation that it will profoundly impact every aspect of our society. ChatGPT is a large, pre-trained language model that has garnered widespread attention for its remarkable ability to generate human-like text, fostering a broad spectrum of applications from enhancing software development processes to innovating in entertainment and creative expression (Haque et al., 2022).

In 2018, OpenAI produced the debut GPT (Generative Pre-trained Transformer) model, which was an important milestone in the evolution of ChatGPT. GPT laid the groundwork for the following generations, notably GPT-2 and GPT-3, which considerably increased the model's ability to generate cohesive and contextually relevant text. These changes were a huge step forward in AI-driven language production. GPT-3 has an unmatched scale of 175 billion parameters, which lets it give responses that are highly coherent and contextually rich (Roumeliotis&Tselikas, 2023).

In recent years, Aydin and Karaarslan (2022) studied the feasibility of utilizing AI to summarize literature reviews. According to the authors, AI has the potential to transform

academic publishing by reducing the amount of human labor required, thereby enabling academics to concentrate more on their research. In the same year, Zhai (2022) did a study with ChatGPT, and the results showed that ChatGPT helps researchers write logical, correct, systematic, and informative papers. The study advocated modifying learning objectives, such as allowing students to use AI technologies to complete subject-specific tasks and emphasizing creativity and critical thinking above broad skill development. In a separate study, Bin-Hady and colleagues (2023) investigated the impact of ChatGPT for learning English on a global scale.According to the findings, ChatGPT is expected to be a valuable contribution to the field in terms of improving learners' language skills, structuring the learning process, and providing immediate feedback on learning outcomes and language use.

1.1.3. Use of ChatGPT in Education

The use of ChatGPT in the field of education has sparked significant attention owing to its capacity to enhance the educational experience of students. This system possesses the capability to cater to the specific needs of each learner, deliver prompt and tailored solutions, provide instant feedback, and enhance comprehension of complex ideas. By adapting to a student's learning pace and providing constant help in their information acquisition process, this AI model becomes an effective tool that enhances a student's active engagement and cognitive advancement (García Sánchez, 2023).

Using ChatGPT has proven to be effective in advancing students' writing development. By engaging with the model, learners can obtain grammatical corrections, recommendations for improvement, and detailed evaluations of their writing. This gives students an opportunity to refine their written communication and achieve greater proficiency in written expression (Osorio, 2023). This application has the potential to be extremely helpful for scientific writing as an assistance tool. However, it is important to recognize that it should not be

viewed as a total solution for developing scientific content on its own. Authors must use their knowledge and experience to support and expand on the data provided by the tool. Where it truly shines, though, is in how easily it enables group discussions and encourages collaborative student involvement in projects and coursework. This nurtures a sense of community among learners by permitting interaction and the sharing of perspectives (Qadir 2022).

Several studies attempted to investigate the possible impact of artificial intelligence, particularly with the well-known ChatGPT tool for students in education. The study looked into AI applications in education, such as personalized learning, adaptive assessment, predictive analytics, and chatbots.The results showed an improvement in learning efficiency and provide personalized educational support to both students and educators. However, it is essential to take into account the risks and limitations of these technologies, including data privacy issues, cultural differences, language proficiency, and ethical concerns (Wang et al., 2023). Over the last few years, its impact has reignited interest in education. This unique tool has established itself as a disruptive technology that is transforming how students are taught, encouraged, and supported in academic settings. Educational facilities are reconsidering how to incorporate technology into their models to enhance teaching and learning for their agents (García-Peñalvo 2023).

As a result, teachers must view this tool in the classroom as an additional resource that enhances the learning experience. This AI tool is not able to substitute cognitive processes or other information sources like social interactions. books, and articles.

1.1.4. Benefits of ChatGPT in Educational Settings

ChatGPT offers a plethora of benefits in educational settings, ranging from revolutionizing learning assessments to enhancing pedagogical practices and providing virtual personal

tutoring. Additionally, it aids in creating outlines, brainstorming ideas, and fostering interactive classroom activities. These capabilities empower educators to optimize teaching methodologies, improve student engagement, and foster a more conducive learning environment (Sok&Heng, 2023).

- **Creating Learning Assessment**

Given that assessment is the foundation of effective education, ChatGPT provides academic staff and teachers with an innovative and adaptable means to develop learning tests that include real-time feedback and reporting. Zhai (2023) proposed that teachers may use ChatGPT to produce learning assessment items while saving time and effort, as well as potentially improving question quality by adhering to a standard structure. Moreover, teachers can use ChatGPT to create open-ended question prompts that are connected with the learning objectives and success criteria of their classes (Baidoo-Anu&Ansah, 2023). Given that the majority of teachers spend a lot of time generating quizzes, monthly tests, and examinations, it is evident that there is a chance for educators to relieve the strain of assessment by receiving support from it.

ChatGPT can also provide an automatic grading system with useful feedback, which is critical for boosting student learning outcomes. It could be used to semi-automate student work grading by detecting the task's faults and strengths (Kasneci et al., 2023). These could include research papers, academic essays, and many types of writing tasks. In this manner, instructors might use the reports generated by such a model to provide relevant feedback to students in formative or summative assessment contexts. According to Kasneci et al. (2023), ChatGPT can help teachers identify areas where students struggle and provide a more accurate assessment of their learning barriers and development. Therefore, it is best for teachers to lighten their workloads and focus more of their time on creating creative lesson

plans, taking part in teacher professional development, and providing one-on-one coaching and mentoring support to each student. ChatGPT can assist with all of these activities, which are necessary to enhance students' learning outcomes.

- **Enhancing Pedagogical Practice**

ChatGPT's novel features enable teachers to enhance educational methods through interactive classroom activities. According to Rudolph et al. (2023)educators can use ChatGPT to build new teaching strategies by taking a flipped classroom approach. This strategy promotes independent learning by allowing students to study both in-class and remotely. According to Atlas (2023), ChatGPT might help teachers not only construct quizzes, exams, and syllabuses but also produce lesson plans, presentations, and other resources, as well as evaluate students' work. This may encourage teachers to adapt and adjust these materials in more engaging ways that suit students' learning needs, and they will have more time to consider and design new teaching techniques and activities.

ChatGPT's interactive communication platform helps teachers create more engaging classroom activities. Herft (2023) stated that teachers can "use ChatGPT to generate visual aids, such as slides or worksheets that clearly outline the learning objectives and success criteria for a lesson" (p. 2). These teaching tools are likely to engage and motivate students in the classroom. Furthermore, ChatGPT-generated questions and prompts have the ability to engage students with a wide range of information and skills, as well as stimulate their problem-solving and critical thinking abilities (Kasneci et al., 2023), Which is critical for 21st-century learning. It is thought that this expanding AI technology will have an essential part in promoting classroom interaction.

- **Offering Virtual Personal Tutoring**

Unlike traditional tutoring methods, ChatGPT has the ability to serve as an excellent personal tutor for students.Mhlanga (2023) and Qadir (2022) indicated that students might receive feedback and personalized responses by using ChatGPT, which can provide intellectual tutoring services via the internet. It allows students to easily ask for help with homework, assignments, projects, and math problems. This method may enable students to become independent and self-directed learners.Similarly,it can debate a wide range of topics in addition to answering students' questions (Baidoo-Anu&Ansah, 2023). However, to make the best use of ChatGPT, educational institutions must set precise guidelines and teach them to students so that they understand how to utilize it efficiently and responsibly.

- **Creating an Outline**

Researchers can provide ChatGPT prompts and instruct it to generate an outline for an article or other type of writing. According to Kasneci et al. (2023), such a model can help students arrange their thoughts for research and writing. In this regard, students can easily provide prompts to ChatGPT, which will generate an outline quickly. However, in order for the outline to be useful, researchers or students may need to make changes to some of the components. In fact, several scholars have already begun utilizing it to construct outlines for their writing (Qadir, 2022; Zhai, 2022). Furthermore, it may swiftly construct an outline of research articles, allowing researchers to quickly and precisely understand the essential points (Kasneci et al., 2023).

- **Brainstorming Ideas**

ChatGPT is essential for research, particularly for brainstorming ideas for writing. Some researchers have already started using it to write research articles (King, 2023; Stokel-

Walker, 2023). In the same line of thoughts, Zhai (2022) utilized this model to develop ideas and then wrote a paper titled ChatGPT User Experience: Implications for Education. He claimed that he had only slightly edited and reorganized the written material. It was concluded that ‖ChatGPT has shown a powerful ability to organize and draft components of articles‖ (Zhai, 2022, p. 9). Thus, ChatGPT is a powerful AI tool that can assist researchers in brainstorming ideas for research articles. However, it is important for researchers to adjust and verify the generated ideas to avoid errors or misleading information (Gordijn& Have, 2023; Mogali, 2023).

1.1.5. Limitations of ChatGPT in Education Settings

Although ChatGPT is still in its early phases, it holds promise for future applications. Unlike Siri and Alexa, ChatGPT operates independently of the internet for answers. Instead, the algorithm constructs responses word by word, selecting the most likely "token" based on previous interactions. In essence, ChatGPT generates answers by making informed assumptions, which may occasionally result in inaccurate responses (Sharma &Yadav, 2023). However, ChatGPT is not well-equipped to provide emotional support due to its lack of emotional understanding and empathy. Overreliance on ChatGPT-like AI systems could discourage interpersonal communication and hinder the development of individual problem-solving skills. Additionally, setting up and maintaining ChatGPT requires significant computing resources and technical expertise. Furthermore, its inability to learn from user interactions limits its capacity to adapt to individual users' needs over time. Moreover, its proficiency in different languages may vary, posing challenges for users across linguistic backgrounds. Concerns also arise regarding the security risks associated with potential misuse of ChatGPT, including the generation of harmful or unethical content such as fake news or spam (Oranga, 2023).Furthermore, ChatGPT has undergone training using diverse written material from individuals worldwide, spanning various time periods. Consequently,

the model may reflect biases inherent in the training data. While the responsibility for bias does not solely lie with the data itself, the faculty and developers at OpenAI curate the data used in ChatGPT's training. OpenAI actively seeks user feedback to address incorrect outputs and mitigate what it terms "biased behavior." However, the premature release of ChatGPT to the public underscores the importance of conducting a comprehensive investigation and resolving potential issues that could harm individuals (Sharma &Yadav, 2023).

1.1.6. Ethical Considerations in Using ChatGPT for Student Interaction

- **Data Privacy and Security**

One of the main ethical problems with using ChatGPT in language learning is privacy. ChatGPT, like other AI models, requires vast amounts of data to train and develop its language-generating capabilities. Users may share sensitive information with the model, leading to privacy and security problems. While using it for language acquisition, learners may share personal thoughts, emotions, and experiences, which can pose risks when collected, stored, and used (Vaccino-Salvadore, 2023).

To elaborate, the data acquired by ChatGPT during language learning exchanges can be used "for purposes other than education" (Kasneci et al. 2023, p. 6), such as enhancing the model's performance and conducting research. The potential uses of learner data create issues of permission, openness, and control. Are learners properly informed about ChatGPT's data gathering practices? Are they able to manage how their data is used and shared? Are there effective protections in place to protect learners' privacy and avoid data misuse? Recently, an Italian government agency in charge of data protection imposed a nationwide ban on ChatGPT, charging users for participating in improper data collection and failing to protect minors from viewing inappropriate content (McCallum, 2023). OpenAI made the necessary changes to meet Italian regulatory standards, and its service was restored (Robertson, 2023).

This case demonstrates the significance of remaining cautious and ensuring that the use of ChatGPT in language learning respects and protects learners' (and other users') privacy rights.

- **Bias and Lack of Diversity**

Another major ethical concern with using ChatGPT is bias. Biases have been discovered in the vast datasets used to train language learning models. As a result, employing such datasets can lead to biased language creation and the reinforcement of stereotypes, discrimination, and prejudice during language learning encounters. Furthermore, by maintaining existing societal prejudices and unfairness, LLMs may have a negative impact on teaching and learning processes and outcomes (Kasneci et al., 2023).

Language frequently is the reflection of human values that vary by culture, time, period, and region (Occhionero 2000; Hofstede 2001). When we communicate through written text, such as on the internet, the information we produce usually represents deeply ingrained socio-cultural values, identities, and perspectives (Johnson et al., 2022). Using internet text to train LLMs, which make probabilistic decisions based on training datasets, can lead to reflected outputs (Zhuo et al., 2023). By evaluating these value-laden results, researchers have shown that LLMs have persistent biases against gender, ethnicity, and religion. Gender bias can occur when language learners use AI to translate between languages with varying gender specificity (Akgun and Greenhow, 2021; Ullman, 2022).

ChatGPT's biased language creation can have an impact on learners' perceptions, attitudes and understandings of various cultures, languages, and communities. It may support dominant cultural norms, marginalize minority groups, or maintain language inequities (Vaccino-Salvadore, 2023). In the same vein, research was done by Johnson et al. (2022), who investigated the structure of the GPT-3 training data, discovered that 93% of the data was in English (Brown et al. 2020) and the values embedded in the information seemed to

come from an American socio-cultural perspective. Furthermore, the biases in ChatGPT's language creation may not be visible to learners, raising ethical concerns. This AI tool derives its outputs from learned patterns, which may not provideunbiased information, accurate, and balanced (Vaccino-Salvadore, 2023).

- **Accessibility and Reliability**

Previous ethical discussions have argued that AI systems should promote global justice and seek equal access for all individuals (European Commission 2018; Nguyen et al. 2022). Language acquisition should be accessible to all individuals, regardless of financial status, talents, or constraints. In actuality, the utilization of ChatGPT for language learning poses accessibility difficulties. AI-powered language learning tools may require special equipment, software, or internet connectivity, which may not be accessible or inexpensive for all learners, giving some students an advantage over others. Using it to generate complex written assignments in a second language can provide students with an unfair advantage over their peers who do not have access to this model. This disparity may lead to inequities in the assessment process (Cotton et al., 2023). Access to the internet is a feature to consider. Petrosyan (2023) reported that there were an estimated 5 billion active internet users in January 2023, accounting for approximately two-thirds of the global population at that time. Internet availability and access are not fairly distributed, especially with this shift in the population toward digitalization. In particular, the global average internet penetration rate is about 64.6%; in Northern Europe, this figure jumps to 97.3%, while in certain African nations, the rate of internet access decreases to 23%. This unequal access to the internet can lead to inequalities and prevent some students from using ChatGPT and other AI-powered resources.

According to Johnson et al. (2022), even if we were to "include the entire Internet in all languages, large sections of humanity would still not be represented in the resulting training dataset" (p. 3). This inequality further highlights the biased character of the training datasets. Despite the absence of accessibility concerns, the matter of reliability remains a significant consideration in relation to ChatGPT and its ability to deliver accurate and trustworthy information (Zhuo et al., 2023). ChatGPT's human-like text generation may make it difficult for language learners to distinguish between verified and unverified material. According to Kasneci et al. (2023), learners may accept erroneous, misleading, or outdated content as true without analyzing its validity. The difficulty in separating between the two may be due to the model being trained on obsolete, erroneous, or biased data.

- **Authenticity**

Authenticity is a key part of language learning. Gilmore (2007) suggested using real-life settings, relevant content, and meaningful interactions with native or near-native speakers. However, using ChatGPT for language acquisition raises concerns regarding the validity of the experience. Such system can generate verbal answers but lacks the depth, richness, and authenticity of human interactions. AI-generated material may not accurately reflect cultural conventions, gestures, or language nuances when translating from one language to another (Ducar and Schocket 2018). Furthermore, it is possible that using ChatGPT will not be able to give students the social, emotional, and cultural context that language acquisition requires. For instance, Kushmar et al. (2022) asked more than 400 undergraduate English language learners from Ukrainian institutions about their thoughts on the use of AI in language instruction. According to the findings, 92% of the respondents were concerned about an AI evaluating their responses "because of their pronunciation, accent, way of speaking, and emotions," and the students were concerned about losing an authentic learning environment with speakers while using AI (p. 270). As stated differently, their concern was that the AI

model would be incapable of comprehending them. Can AI-generated material accurately represent human language, culture, and communication? Recent research on bias in training data raises concerns about the limitations and distortions of language models' outputs. Over-reliance on ChatGPT can lead to disconnected language abilities, resulting in a superficial comprehension of language and culture.

- **Academic Dishonesty**

Recently, the educational sector has raised ethical concerns about ChatGPT's potential to compromise academic integrity. It can help language learners' complete tasks or evaluations, but it raises worries about plagiarism, cheating, and authenticity (Currie, 2023). Moreover, Dehouche (2021) suggested that students can utilize the tool to write essays in their second language and submit them as their own work with appropriate prompts. Furthermore, they can use it to cheat on exams in real time (Susnjak 2022), which would undermine the exams' fairness and possibly lead to "inaccurate assessments of students' knowledge and skills" (Currie 2023, p. 5). Sophisticated inputs and outputs represent a challenge for teachers and educators to differentiate between machine and human text (Elkins and Chun 2020; Susnjak 2022; Cotton et al. 2023). AI detection techniques scan written text for patterns or inconsistencies that may indicate machine-generated work (Cotton et al., 2023). ChatGPT's text, on the other hand, is one-of-a-kind, making it undetectable by plagiarism detection tools.

In addition to the problems in evaluating students, some researchers suggested that using ChatGPT may have a negative impact on students' critical thinking, learning experience, research training, and imagination (Shori 2023). When students choose to use it or other AI-powered technologies, they may experience considerable learning shortcuts, particularly in the development of transferable abilities. Relying too heavily on ChatGPT responses without obtaining advice from teachers or other authoritative sources might lead to dependency and

hinder the development of critical thinking skills. Academic dishonesty undermines education's primary goal of challenging and educating pupils (Cotton et al., 2023).

Conclusion

To conclude, the use of ChatGPT technology in education has the potential to transform the learning experience by enabling personalized and interactive learning in addition to providing students with access to a variety of knowledge and information. However, this technology has disadvantages such as cheating, data privacy, and bias. It is critical that educators and governments consider these difficulties and take appropriate measures to address them. The success of ChatGPT technology in education depends on its integration into the learning process and successful use to improve student accomplishment. Using this technology responsibly can improve education and empower future learners.

Section Two: Motivation in Language Learning

Introduction

In this section, we will explore the crucial role of motivation in foreign language learning. Firstly, a number of definitions provided by motivation researchers will be presented to highlight the varying perspectives on this concept. Additionally, the lack of consensus in the literature regarding its precise definition will be addressed. Secondly, the focus will shift towards examining the main types of motivation. Subsequently, we will delve into an in-depth discussion of the significant motivation theories, including behaviorist, humanistic, attribution, expectancy value, and goal theories. This will lead us to notably explore the factors that influence the motivation of English as a Foreign Language Learner. Furthermore, we will examine the assessment of motivation in relation to language learning. Finally, the

section will conclude by emphasizing the importance of motivation in second language acquisition.

1.2.1.   Definition of Motivation

Motivation comes from the Latin word "movere," which means to move, and it provides energy for people's actions (Eccles et al., 1998; T. Jansen et al., 2022). It is a simple concept, but it is difficult to define because the word itself is complicated. According to Nakata (2006), ‒motivation cannot be explained by a single definition. Because of the complexity of defining the term, there has been a paradigm shift in our understanding of motivation over the last 50 years.‖ (P.24). Gredler, Broussard, and Garrison (2004) broadly defined motivation as ‒the attribute that moves us to do or not to do something.‖ (p. 106). Furthermore, Brophy (2004) claimed that student motivation refers to students' willingness to devote time and effort to activities that may not align with their teachers' expectations.

Motivation, according to Maddukuri (2022), is an internal drive to fulfill basic needs or desires. It stems from both internal and external causes. Additionally, Mullins (2005) defined motivation as the internal and external elements that drive enthusiasm, desire, purpose, and tenacity towards a specific path of action. Moreover, motivation is a critical aspect in determining the success or failure of any challenging endeavor. Motivation is a key factor for task performance. In second language learning, motivation is often assumed to be a key to success (Alizadeh, 2016).

According to Luthans (2010), motivation stems from a physiological or psychological need that drives action toward a goal or an incentive. Furthermore, Turner (1995) associated motivation with cognitive engagement, which he described as "voluntary uses of high-level self-regulated learning strategies, such as paying attention, connection, planning, and monitoring" (p. 413). Gottfried (1990) defined academic motivation as ‒enjoyment of school

learning characterized by a mastery orientation; curiosity; persistence; task endogeny; and the learning of challenging, difficult, and novel tasks‖ (p. 525).

Finally, the above-mentioned definitions and thoughts revealed that studying motivation is a difficult undertaking, and academics disagreed on its components. Although there is no commonly agreed-upon definitions of "motivation", most experts believed that it plays an important part in determining educational success or failure in any learning process.

1.2.2. Types of Motivation

Researchers believe that motivation is complex because many factors influence student behavior. There are numerous types of motivation that influence various causes or aims, hence increasing achievement.

1.2.2.1.   Intrinsic motivation

Ryan (1982) argued that intrinsic motivation exists in individuals and connects them to their endeavors. Individuals are internally driven by their interest in certain tasks, while others may not be motivated by specific tasks. According to Hayikaleng, Nair, and Krishnasamy(2016), intrinsic motivation (IM) in language acquisition is the desire to engage in an activity that is enjoyable and fascinating to participate in. Moreover, Biggs (1987) contended that students are intrinsically motivated when they are enthusiastic about and enjoy performing their academic tasks. According to Ehrman et al. (2003), intrinsically motivated learners enjoy the learning process and feel competent in completing tasks. Intrinsically motivated individuals tend to prioritize internal motivation over external factors. Furthermore, people who are intrinsically motivated believe that they are participating in an activity voluntarily and that the activity poses a challenge to their existing competencies and require them to employ their creative abilities (Demir, 2011).

According to Deci and Ryan (2000), social contexts can either enhance or hinder intrinsic motivation by addressing individuals' psychological needs. Additionally, Demir (2011) demonstrated that strong relationships have been established between intrinsic motivation and the satisfaction of the needs for autonomy and competence, and some research suggests that satisfying the need for relatedness, at least in a distal sense, may also be significant for intrinsic drive.

1.2.2.2. Extrinsic Motivation

Extrinsic motivation is a concept that applies whenever an activity is performed in order to achieve a separate objective (Ryan &Deci, 2000a). Moreover, extrinsic motivation is the predisposition to participate in activities for reasons unrelated to the activity. These motives can include the expectation of reward or punishment, such as passing an exam or receiving a good grade (Vansteenkiste, Lens, &Deci, 2006).

According to Legault (2016), extrinsic motivation is a behavior based on achieving a result rather than the objective itself. Extrinsic motivation and intrinsic motivation differ in their goal orientations. According to Seifert and Sutton (2009), extrinsic motivation is related to performance goals, whereas intrinsic motivation is associated with mastery goals. In fact, students with performance goals obtain greater grades than students with mastery goals, but their learning is not as deep or lasting as that of students who are mastery-oriented.

Some research suggests that if students are self-motivated and internalized, extrinsic incentives will reinforce their intrinsic motivation (Dörnyei, 1994; Brown, 2001). Many motivational researchers disagree on whether internal or extrinsic drive is most significant in the learning process. Nonetheless, Seifert and Sutton (2009) argued that a combination of the two is required for effective learning.

1.2.2.3.   Integrative Motivation

According to Clement, Drnye, and Noels (1994), integrative motivation is characterized by a favorable attitude towards the L2 group and a desire to connect with and emulate respected members of the community. It is about respect for various cultural groups and ways of life; in extreme circumstances, it may show identification with the community and potentially distancing oneself from one's own native group. Thus, psychological and emotional identification are essential components of the integrative disposition. Moreover, Gardner et al. (1976, as cited in Dwalk and Shehadeh, 2010:335) defined integrative motivation as a "high level of drive on the part of the individual to acquire the language of a valued second language community in order to facilitate communication with that group." This signifies that the person wishes to be a part of the target language.

1.2.2.4.   Instrumental Motivation

Gardner et al. (1983, p. 2003) defined instrumental motivation as ‒learning a language because of some more or less perceived utility it might have for the learner‖. Learners are motivated mostly by external rewards. Additionally, Ellis (1997) defined instrumental motivation as learning a language for specific purposes, such as passing an exam, obtaining a better job, or enrolling in a university. It reflects students' aspirations to achieve particular goals through their efforts. For example, some students study English intensively to excel in speaking competitions and achieve satisfactory test scores.

Dörnyei (1990) explained that instrumental motivation may hold more significance than integrative motivation for foreign language learners, particularly in the early stages of learning when they lack sufficient knowledge and experience to engage with the culture of the target language. Thus, Brown (2000) concluded that integrative and instrumental motivations are not mutually exclusive; learners typically adopt a combination of both when

acquiring a second language. Similarly, Dornyei (2001) identified integrative and instrumental motivations as positively connected and emotionally charged goals that contribute to maintaining motivation.

1.2.3. Theories of Motivation

Education is just one of the many fields in which academics have long been interested in the subject of motivation. Diverse incentive theories have been developed by educational psychologists to better understand, anticipate, and control human learning behavior. They focused on the things that motivate pupils. Most of these theories acknowledge the role that motivation plays in the processes of teaching and learning. However, in order to provide a comprehensive explanation of this intricate idea, each theory takes a different approach when it comes to motivation.

1.2.3.1.   The Behaviorist Theory

Behaviorists defined learning as the process of connecting a stimulus to a response. According to Bentham (2002), the Behaviorist learning theory is concerned with the relationship between stimuli, or activities in the environment, and the responses that an individual makes as a result. Motivation and learning are both considered behaviors; therefore, behaviorists claim that there is no true distinction between the two. As a result, the same concepts apply to both (Schunk, 2012). In reality, behaviorism encompasses three fundamental notions.

Ivan Pavlov, a Russian scientist, was the first to propose the classical conditioning theory in 1927. The theory proposes that a neutral stimulus can learn to elicit a response from a signal that typically produces the desired reaction. Motivation is defined as a change in

behavior that is rewarded by an external stimulus in classical conditioning. Ellof and Ebersöhn(2004).

The second is Skinner's Operant Learning Theory, also known as operant conditioning, a behavioral psychology concept that describes how people learn by observing the consequences of their actions. It focuses on the role of reinforcement and punishment in shaping behavior. Operant conditioning is the use of consequences to change the frequency and form of behavior. Reinforcement strengthens behavior by providing a rewarding consequence, whereas punishment weakens behavior by presenting an unpleasant consequence (Staddon&Cerutti, 2003).

Observational/Social Learning Theory proposes that learning can occur without direct experience by seeing others' behaviors and the effects of such behaviors. Bandura's theory highlights the importance of processes including attention, retention, reproduction, and motivation in observational learning. The observer must pay attention to the activity, retain the knowledge, be able to replicate the conduct, and be motivated to do so (Bandura, 1977).

To summarize, behaviorists believed that motivation is not influenced by internal factors. Motivation should not be viewed as something "within" a learner that controls the learner's behavior, but rather as something similar to the student's external behaviors, according to Seifert and Sutton (2009). As a result, behaviorists may define motivation as an increase in the level of observable behavior caused by external influences.

1.2.3.2.   The Attribution Theory

Attribution theory is concerned with how people explain or attribute the actions of others or the causes of events they witness. It entails making causal attributions in order to better understand oneself and the context in which behaviors or events occur, as well as to predict

and maintain control over behaviors and the environment. People classify the causes of events into two categories: internal and external. Internal or "dispositional" attributions attribute causality to factors within the individual, such as ability or personality traits, whereas external or situational attributions attribute causality to external factors such as weather or situational circumstances. This theory has been applied to various contexts, including service consumption, where unexpected outcomes may trigger consumers' search for an explanation of the perceived discrepancy in performance (Heider, 1958; Laufer, 2002; Tse, 1990). Furthermore, the attributional model of motivation assumes that individuals make causal judgments concerning success and failure experiences and that these judgments can be categorized according to relevant dimensions influencing expectancy shifts and affective responses" (Duda and Allison, 1989, p. 38). Based on this viewpoint, attribution theory is concerned with providing both reasons and explanations for individuals' positive or negative performance. For example, a learner may claim the difficulty of an assignment as an explanation for a poor score, while using intelligence to justify a high score.

1.2.3.3.   Humanistic Theories

Unlike behaviorism, which focuses on what is clearly observable, the humanistic approach emphasizes the individual's inherent worth, the importance of human values, and human beings' dynamic, active nature. Humanism emphasizes the study of students' behaviors, ideas, and emotions in educational settings in order to gain a deeper understanding of their nature and learning style. When making decisions, humanists consider students' self-awareness as well as their abilities and potential. This component of motivation is represented by three notions. Maslow's Hierarchy of Needs, the Hierarchy of Motivational Needs, and the Self-determination Theory are three examples.

Abraham Maslow believed that humans are inherently good and had a rising inner drive with immense potential. Maslow's (1954) needs hierarchy concept is widely used to classify human motivations (Pardee, 1990). It is composed of five types of needs, with lower-level needs at the bottom that must be met before higher level needs may be addressed (Wallace et al. 1987, as referenced in Pardee, 1990). The five general levels of needs are shown in the following hierarchical order:

- **Physiological needs:** the motivation theory begins with the most basic requirements, including hunger, thirst, comfort, food, water, sex, and shelter.

- **Safety needs:** protection from risk, threats, and deprivation. Behavior that creates uncertainty about continued employment or reflects favoritism. Unpredictability in policy administration might motivate employees to prioritize safety at all levels (Hamner and Organ 1978, 137).

- **Social needs:** it is about the exchange of love, affection, belonging, acceptance, and affiliation. (If the first two criteria are satisfied, individuals may become more sensitive of the absence of their companions).

- **Ego needs:** both the need for achievement and the need for autonomy are psychological requirements that motivate people to pursue success and independence. Similarly, the desire for status, recognition, praise, and prestige is linked to the demand for self-esteem or self-worth. These desires, while diverse, are interrelated and play critical roles in encouraging people to follow their dreams and seek affirmation from others.

- **Self-actualization needs:** self-development involves recognizing one's potential and striving for personal growth. Modern industrial existence presents limited opportunities for self-actualization (Hamner and Organ 1978: 138).

In 1969, Clayton P. Alderfer created Alderfer's ERG theory. Alderfer, an American psychologist, simplified Maslow's hierarchy of needs by introducing the ERG theory. The acronym stands for Existence, Relatedness, and Growth. This approach classifies people's needs into three categories. The three categories are existence, relatedness, and growth. The primary groups closely resemble Maslow's hierarchy of needs theory. Both ideas suggest that individuals aim to fulfill their basic requirements throughout their lives. Once basic needs are fulfilled, they aim to address higher degrees of need(Arogundade&Akpa, 2023).

According to Perilla (1998), the theory of acquired needs can help individuals understand their motives by addressing socially acquired demands. This theory suggests that individuals' motives can change over time and vary depending on their needs at any given time, as mentioned by Alderfer's ERG theory (Arogundade&Akpa, 2023). Individuals' priorities, needs, and motives evolve over time, moving from basic requirements to relatedness and growth. Gomes (2002) also emphasizes the importance of learning and problem-solving in the theory of acquired needs, suggesting that individuals can adapt their interactions with others to better meet their needs and survive in their environment.

Despite some evidence to the contrary, recent analysis of motivating work mostly supports Alderfer's approach. The ERG hypothesis builds on prior theories' strengths and is less restricted and limiting (Arogundade &Akpa, 2023).

Self-determination theory may is way of examining human inspiration and identity conventional observational strategies with an organismic metatheory that highlights the significance of humans' inalienable internal assets for identity improvement and behavioral

self-regulation.Furthermore, it focused on both inner and external influences. Intrinsic motivation refers to the actions taken by individuals to achieve specific goals. This type of motivation originated inside individuals in order to meet their needs and experience the satisfaction of attaining their goals without being influenced by other forces. Intrinsic motivation is referred to as self-determined motivation, whereas extrinsic motivation is referred to as controlled motivation. This last one came from the outside, when learners conducted acts in order to get certain incentives from the outside world, such as excellent exam scores. In other words, this idea contributed to creating a clear distinction between the two forms of motivation, and ‒it distinguishes between self-determined and controlled types of intentional regulation‖ (Deci, Vallerand, Pelletier, &Ryan, 1991, p. 326).

According to Ryan and Deci (2000), self-determination occurs when individuals meet their demands for competence, autonomy, and relatedness. First, competence referred to learners' knowledge of the subject matter as well as their ability to master the skills they acquired; this provided them with a sense of security and motivation to begin and complete their goals. Autonomy refers to learners' self-independence and control, resulting in a sense of self-determination and positive transformation. Third, relatedness is defined as a sense of attachment and connection to others. Although self-determination theory recognized the biological and physiological needs of individuals, the term needs was tied to the psychological ones.

To summarize, self-determination theory is well recognized and supported by multiple studies. It posits satisfying students' psychological demands for autonomy, competence, and relatedness is vital for internalizing motivation. One example is Chen and Jang's (2010) study, in which they evaluated a self-determination theory model in two online teaching certificate programs to investigate online learners' motivation, and their findings confirmed SDT theory.

1.2.3.4.   Goal Theories

According to Brophy (2004, p. 7), goals could be broadly characterized as "objectives or intended outcomes of planned sequences of behavior." The goal theory emphasizes that people's motivation is primarily driven by their goals, and that goals help them achieve their true desires. Goal theories are concerned with the reasons or purposes that students believe they should achieve (Anderman &Midgley, 1998). Goals affect individual performance through four mechanisms:

- Goals focus attention and effort on relevant activities, avoiding irrelevant ones.

- Goals provide motivation and help individuals manage their effort based on the task's difficulty.

- Goals have a positive effect on persistence.

- Goals indirectly influence action by triggering arousal, discovery, and application of task-relevant knowledge and strategies (Locke and Latham 2002:706-7).

Goal orientation theory was developed in a classroom environment to explain children's learning and performance (Dörnyei, 2001), and it may be one of the most potent motivational theories in the classroom today (Pintrinc&Shunck, 1996).Unlike goal-setting theory, goal orientation theory was developed in a classroom environment to explain children's learning and performance (Dörnyei, 2001), and it may be one of the most potent motivational theories in the classroom today (Pintrinch&Shunck, 1996).According to this theory, an individual's performance is strongly tied to his or her approved goals. The theory distinguishes between two sorts of goal orientations: performance and mastery/learning. Learners with the first orientation are primarily concerned with appearing nice and capable, whereas those with the

second are more concerned with expanding their knowledge and being capable (Ames & Archer, 1988; Ames, 1992).

1.2.3.5.   Expectancy Value Theories

Gorman (2003) defined expectancy theory as the belief that people's desire to complete a specific job stemmed from their expectation of a reward. The key topic covered in expectancy-value theory was what formed learners' intrinsic drive to do things, rather than what stimulated them to do it in the first place. According to Pintrich (2003), motivation is influenced by two key anticipation components: the likelihood of success in an assignment and the values associated with success. This means learners' previous experiences, achievements, and expectations regarding the success of previous activities had a significant impact on their current motivation to complete new ones.

Pintrich (2003) described the expectation components as "beliefs about one's ability to control, perform, or accomplish a task" (p.8). In other words, what learners believed about their ability to manage a certain activity, how successfully they would accomplish it, and what outcomes they would attain would all result in a specific set of behavioral patterns that would govern their motivation. Moreover, Seifert and Sutton (2009) found that students' self-efficacy and objectives are key factors influencing their expectations of success. Students that have strong task efficacy and mastery targets are more likely to succeed. Students' hobbies and sense of self-determination can impact their values. A real interest in a topic or task can motivate students to grasp it.

1.2.4. Factors that Influence EFL Learners Motivation

Teachers and researchers have broadly accepted motivation as one of the most important elements in foreign language (L2) learning. Current research with English language learners

(ELLs) indicates that there are a number of factors that influence students' success in learning English as an additional language (Hanus, 2016). Those factors can be illustrated in the following:

- **Teachers:** positive interactions with teachers boost students' confidence, self-efficacy, and motivation to learn. Students are more likely to get involved and motivated to improve their language abilities independently if they believe their teachers are encouraging, supportive, and enthusiastic in the subject matter (Fukuda & Yoshida, 2013). Although excellent teacher-student connections are essential for learning, teachers must also ensure that ELLs feel comfortable and supported by their classmates.

- **Parents:** they play a key role in motivating their children to acquire and enhance their language abilities and competency. Both Extrinsic and intrinsic motivation are vital for children's performance, but parental motivation has a direct and beneficial impact on student progress. If parents emphasize the importance of education and the need for language skills and competency, their children are more likely to be driven to accomplish these objectives. Parents' perceptions about their children's talents and qualities have a substantial impact on their motivation and their own beliefs about their academic capabilities (Butler, 2014). Furthermore, Harmer (1991) believed that parents' expectations are important for students' school performance, motivation, and academic achievements because they are generally connected with better levels of educational attainment.

- **Students' previous learning experiences:** the current learning outcomes will be influenced by students' previous learning experiences. If they were successful previously, they may be primed to learn success again. On the other side, if

unsuccessful, they will anticipate failure now. Furthermore, the knowledge gained from previous learning experiences is seen as a knowledgeable foundation from which people can continue to study both now and later. Students that have a strong background in learning can study effectively today. Information on extrinsicincentive has been supplied (Tuan, 2012).

- **Physical Conditions:** such as the lighting, the temperature, the acoustics, the lines of vision, the layout of desks, the facilities for displaying pictures or charts, and materials. They have a significant impact on learning. According to Haynes (1998), positive school climate perceptions can provide a conducive learning environment. For example, if students perceive their classroom as a loving, comfortable, and supportive environment in which everyone is appreciated and respected, they will be more likely to participate completely in the educational process. Lumsden (1994) stated that classroom atmosphere has a significant impact on intrinsic motivation. Harmer (1991) found that poorly lit and overcrowded classrooms can be demotivating, leading to worse study performance compared to more comfortable environments.

- **Goal orientation:** learners' motivation is strongly influenced by the goals they establish for themselves. Whether the goal is to develop speaking abilities, pass an English proficiency test, or seek higher education in an English-speaking country, the clarity and applicability of these objectives can motivate students (Ushioda, 2009). Furthermore, Locke and Latham (2002) found that setting explicit, hard goals can improve learners' motivation and performance. Furthermore, Bandura's self-efficacy theory (Bandura, 1997) proposes that learners' belief in their ability to attain their goals has a significant impact on their motivation. As a result, creating a sense of self-

efficacy through positive experiences and appropriate feedback can dramatically increase learners' motivation and persistence (Zimmerman, 2000).

- **Socio-economic status:** academic standards, educational resources, and societal prejudices are all influenced by one's socioeconomic standing. Higher socio-economic status might lead to higher academic expectations for children in college and university, impacting students' motivation and future possibilities (Aro&Mikkila-Erdmann, 2014). Parents with higher socioeconomic standing can offer resources and chances to their children that lower-income households may not have. Lower socio-economic students sometimes lack self-esteem and confidence in their studies, fearing they will not have equal prospects for future success. Students with lower socioeconomic status often attend low-income schools, which may be outdated, lack extracurricular programs facilities,or exude a negative climate (Chu, 2011).

- **Demotivation:**Dörnyei (1998) defined demotivation as particular external circumstances that decrease or diminish the motivational foundation of a behavioral intention or ongoing action. Demotivated learners demonstrate a lack of interest in the L2 or L2 community culture, are hesitant to participate in class activities, and have no close relationship with the teacher or peers. As a result, kids demonstrate an increasing lack of confidence in the school setting.Eventually, these students experience poor learning outcomes, which reduce their motivation.

1.2.5. Motivation Assessment:

Motivation assessment is a multidimensional procedure that assesses an individual's drive, determination, and willingness to pursue objectives or tasks in numerous areas of life (Deci& Ryan, 2000). It is based on psychology theories and research and includes a variety of approaches and tools designed to capture the complexity of human motivation. It has been

extensively studied across various domains, such as professional jobs, sports, and social interactions. In education, academics often focus on finding distinct types of motivation among students. In 1992, Robert J. Vallerand developed the Academic Motivation Scale (AMS) to address a gap in instrument development by creating a single instrument for many student populations. Vallerand had previously researched self-determination theory (Deci, Vallerand, Pelletier, & Ryan, 1991; Vallerand&Bissonette, 1992) and was familiar with the theory's postulates.

The AMS (Vallerand, Pelletier, Blais, Briere, Senecal, &Vallieres, 1992) was developed to assess intrinsic, extrinsic, and amotivating factors across multiple disciplines. For the first time, an instrument existed that investigated the three distinct conceptions of motivation proposed by self-determination theory. The AMS was first created for college students but has now become widely utilized in the United States, Canada, and Europe. According to the hierarchical paradigm (Vallerand&Lalande, 2011), motivation at one level affects motivation at the next level. Moreover, according to Vallerand, Pelletier, and Koestner (2008), motivational research is always evolving. The self-determination theory offers insights into human activity in several sectors, such as education, work, recreation, parenting, sports, and health.

Lyndon et al. (2019) found that the individual subscales of the AMS had low temporal stability and generalizability across sample populations and occasions. However, the full-scale AMS scores were highly generalizable and stable over time, with a G-coefficient of 0.93. He discovered that the AMS subscales accurately assessed motivational moods rather than attributes. The AMS subscales measure dynamic aspects of motivation, indicating that individuals have a shared set of motivational resources across all categories rather than being more motivated in one direction over another.

The factorial validity of the AMS is evaluated using either confirmatory factor analysis (CFA) or exploratory factor analysis (EFA). Other researches employ principal component analysis (PCA) or exploratory structural equation modeling (ESEM) to determine AMS factorial structure. The majority of CFA results confirm the seven-factor structure reported by Vallerand et al. (1992).

The Academic Self-Regulation Questionnaire (SRQ-A) is based on self-determination theory, which is a self-report questionnaire used to know why learners complete their work. It focuses on late elementary and middle school pupils. The SRQ-A questions assess whether motivation for a specific behavior is autonomous or controlled. The scale evaluates self-reported motivations for participating in school-related actions. It contains subscales that align with the SDT continuum (Gomes et al., 2019).

Ryan and Connell (1989) outline the questionnaire's psychometric qualities. The authors chose a four-factorial structure over a two-factor solution (internal and external) to explain the psychological significance of these categories. The study found a simplex-like relationship between regulatory styles and motivational kinds, supporting the self-determination continuum. In a simplex pattern, variables are ordered based on conceptual similarity, with more related concepts correlating more strongly than more dissimilar ones. According to Ryan and Connell (1989), the four subscales had moderate to high internal consistency, with values ranging from 0.62 to 0.82.

SRQ-A has been widely employed, and its applicability has spread across other countries and cultures. In a study of fourth-grade pupils in Italy, Alivernini, Lucidi, and Manganelli (2011) duplicated the four-factor structure of the SRQ-A (15 items) and discovered significant internal consistency. The Japanese version for fifth and sixth grades had good internal reliability; however, the analysis generated three variables (16 items): intrinsic

regulation, external regulation, and another factor that included both identifiable and introjected regulation (Carreira, 2012).

1.2.6. Importance of Motivation in Second Language Learning

Motivation is regarded as one of the most important components in optimal learning outcomes(Garder&Lambert,1972;Gardner,1990;Noels,2000,Masgoret&Gardner,2003;Wachob,2005, as cited in Cheng & Cheng,2012). According to Spolsky (1990), motivated students learn more and faster than unmotivated students. Students who are less motivated in a given learning situation are more likely to lose focus, misbehave, and cause discipline issues. On the other hand, students who are highly motivated will participate actively and pay close attention to a specific learning task or activity. Similarly, Wimolmas (2013) believed that motivation play a significant role in language learning success. Along this line of thoughts, students' motivation for English language learning can, to some extent, influence their learning outcomes.

Motivation is such an important issue in English as foreign language (EFL) contexts that it overshadows all other concerns about teaching approach. Because of the hard reality of learning English for the majority of our students, it is critical to view motivation as the foundation of language education (Yung, 2023). Furthermore, motivation plays a controlling role in the process of attempting to learn a specific division of study all over the world; even when learning a specific language, motivation and its basic types and theories must be studied by both the teacher and the learner, as well as its role and effect on the learning process inside and outside of L2 classrooms (Oudah&Alhamdawee, 2022). Moreover, Bialystok's strategy model (1978) illustrates that learners will seek language exposure if they are motivated.

Conclusion

To conclude, educational psychologists have identified motivation as a key aspect. As a result, numerous studies have been carried out to comprehend this challenging concept. Scholars have not reached an agreement on defining motivation. Most experts believe that motivation plays an important part in the success or failure of a learning process. To reach our study's purpose, we must address our research questions in the following chapter. Research suggests that motivating foreign learners can lead to improved outcomes. Research suggests that incorporating technology into educational environments might significantly boost student motivation.

Chapter Two: The Practical Field Work

Section One: Research Methodology

Introduction

The first chapter reviewed the related literature items for both variables: the use of ChatGPT in education and motivation in language learning. The second chapter, however, covers the practical field workof our research study, which seeks to investigate the impact of using ChatGPT on EFL students' motivation. This chapter clarifies the method implemented to conduct the research work, the reasons behind choosing it, and provides details on the population and sample used in the study. After that, it deals with the students' questionnaire with regard to its description, administration, data analysis, interpretation, and discussion of the findings. At the end of this chapter, some suggestions are provided for future studies, in addition to the limitations faced when conducting this study.

2.1.1. Research Method

The proper selection of a research method poses one of the key challenges in conducting research. In our study, we have arrived at this decision by choosing a descriptive approach and utilizing a questionnaire as the primary instrument for data collection.

According to Kothari (2004), "A questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. The questionnaire is mailed to respondents who are expected to read and understand the questions and write down the reply in the space meant for the purpose in the questionnaire itself." (p. 100). We have selected the questionnaire for a variety of reasons. One reason is that motivation is considered an unobservable characteristic, as it is a psychological concept that reflects the inner desires of learners.In fact, the questionnaire is frequently employed by researchers studying motivation.

Furthermore, the questionnaire is the suitable tool for examining the perception and attitudes of research participants.

2.1.1.1. The Students' Questionnaire

2.1.1.1.1. Population and Sample

The current study is being conducted by the University Center of Mila, specifically by the Institute of Letters and Languages and the Department of Foreign Languages. This study focuses on students of English, particularly those enrolled in the Master 1 EFL program at Mila University Centre during the academic year 2023-2024. The population under consideration comprises a total of 115 students, organized into four groups. In regards to the sample, 58 students were selected randomly from the English department of AbdelhafidBoussouf University Center of Mila to make up the research sample. The selection of Master 1 is based on the conception that such students have expertise, experience, and motivation. Their accessibility through university protocols facilitates the research process. While the small sample size limits generalizability, in-depth data from a single student can yield valuable insights into the research topic.

2.1.1.1.2. Description of the Students' Questionnaire

The students' questionnaire consists of four sections and a total of 7 questions, which are closed-ended, open- ended, and multiple-choice questions. The seven questions were carefully selected to align closely with the aim of the research. The first section is entitled ‒Background Information." It sheds light on the students, including their gender and their English proficiency level. The second section aims to assess students' familiarity with ChatGPT, frequency of use, and comfort level. Additionally, it evaluates whether they feel

motivated to learn English because of the use of ChatGPT by providing reasons for their answers.

The third section is entitled ‒Relationship between Motivation and ChatGPT,"it includes a motivational scale that was adapted from the Academic Motivation Scale (AMS-C 28) and the Academic Self-Regulation Questionnaire (SRQ-A). The scale developed to assess EFL students' motivation towards using ChatGPT to learn English. The scale comprises 13 statements, and divided into four subscales: intrinsic, extrinsic, integrative, and instrumental. Three subscales for each of the first three types and four subscales for instrumental motivation. Also, it employs a 4-point scale (very true = 4; sort of true = 3; not very true = 2; not at all true = 1).The responses were analyzed using SPSS 23. The statistical analysis included calculating descriptive statistics (mean, standard deviation) for each subscale and conducting reliability analysis to ensure the internal consistency of the scale. The results from SPSS 23 provided insights into the different motivational dimensions.

The fourth section covers one optional question where the students were asked to provide any suggestions to share for the benefit of the research paper.

2.1.1.1.3. Administration of the Students' Questionnaire

The questionnaire for the present study was administered to Master 1 EFL students at Mila University Centre. The questionnaire was hosted on the Google Forms platform and sent to the participants via email, Messenger, and Facebook groups. To ensure the anonymity and confidentiality of the responses, the questionnaire was designed so that no personally identifiable information was collected. The process of collecting data took about four days, between the 21st and the 25th of April.

This is the link to our questionnaire:

https://docs.google.com/forms/d/e/1FAIpQLSfgmx1xlMNtNwEJXEBfc_RXuTDgvdCQYGl

QTRd2d-VIEMkyHA/viewform?usp=sf_link

Section Two: Data Analysis and Interpretation

2.2.1. Analysis of the Students' Questionnaire

2.2.1.1.   Background Information

Q1. Gender:

Figure 2. 1: *Students' Gender Distribution*
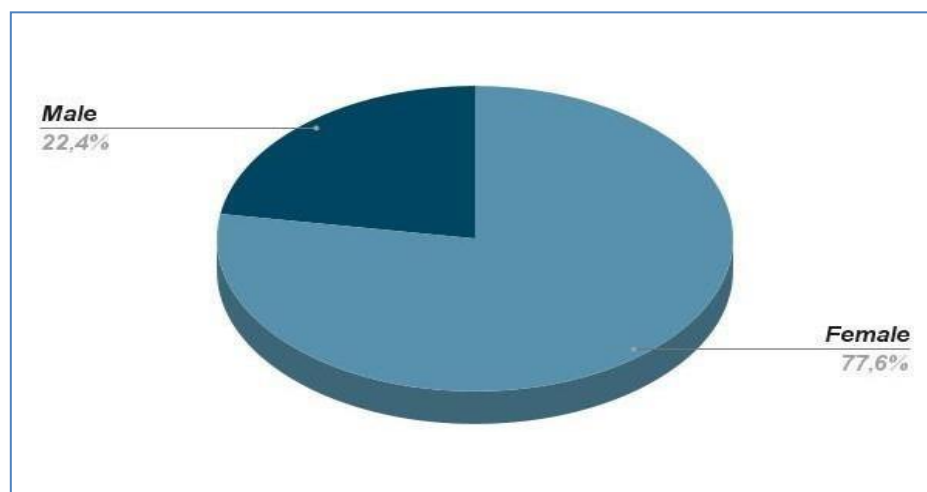
For the purpose of exploring some aspects of the students' backgrounds, this question was set to determine the participants' gender. Although the background information did not have a direct relation to the aims of the study, it was thought that it might serve the curious reader. As shown in figure 2.1, it shows that the vast majority of the students (77.6%) were female. On the other hand, only (22.4%) were male.

Q2. English proficiency level:

Figure 2. 2: Students' Perceptions of their English Proficiency Level
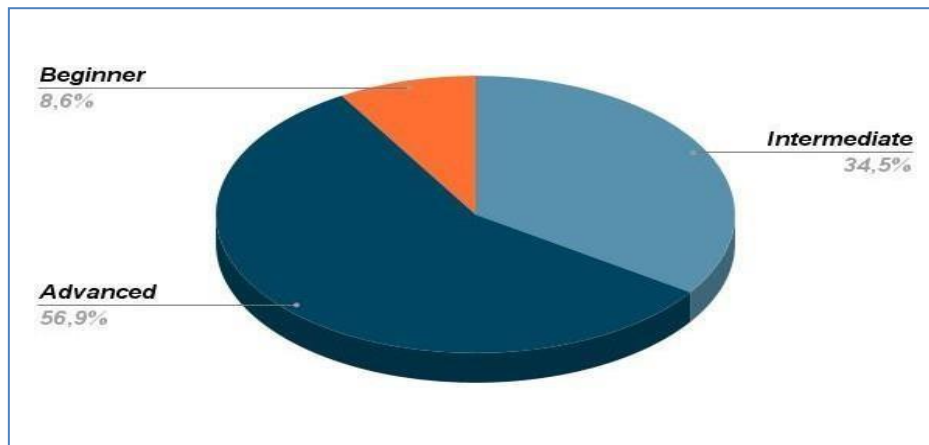
Our aim with this question is to determine students' English proficiency level. Figure 2.2 illustrates clearly that more than half of the students, which represents (56, 9%) consider their level of proficiency in English to be advanced, which implies that learners are considered independent users of the language, i.e., they are familiar with the language, know the grammar rules, and have the ability to engage in conversations. A percentage of (34, 5%) of the participants reported that their level is intermediate, while the rest of the students (8, 6%) rate their level of English proficiency as beginner.

2.2.1.2.   The use of ChatGPT

Q3. How familiar are you with ChatGPT, as a language learning tool?

Figure 2. 3: *Students' Familiarity with ChatGPT as a Language Learning Tool*
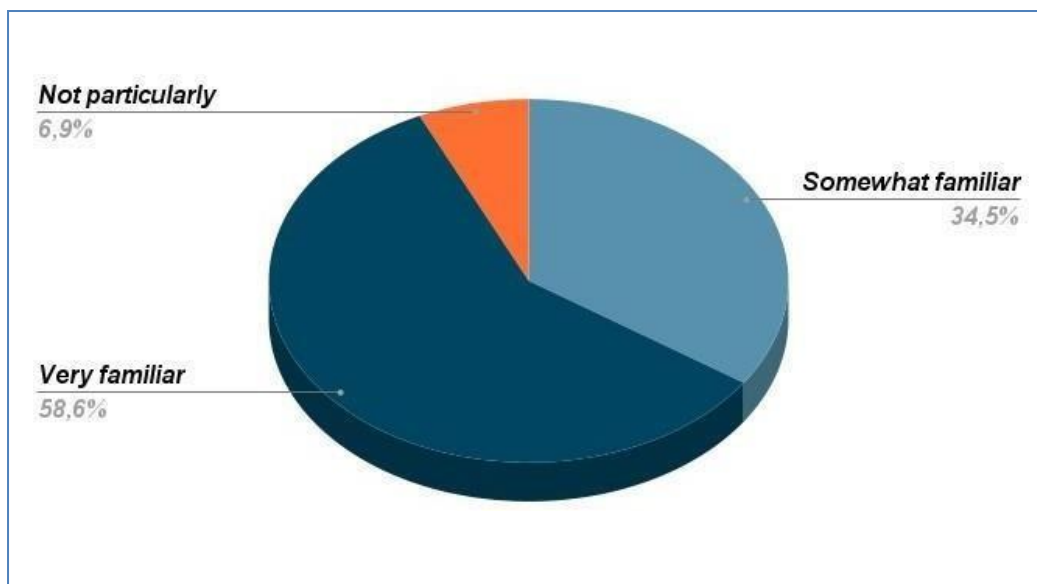
The purpose of this question was to determine how familiar EFL students are with ChatGPT as a language learning tool. The results obtained show that (58, 6%) of the participants are very familiar with ChatGPT, which suggests that it is a recognized language learning tool within the EFL student community. Moreover, a high familiarity suggests students are interested in exploring new tools to learn English. This curiosity can be a good starting point for motivation. Furthermore, an additional (34.5%) of the participants indicated "somewhat familiarity" with ChatGPT. While this suggests a less extensive exposure compared to the "very familiar" group, it still contributes to a notable overall awareness of the tool. Finally, the remaining (6.9%) of participants reported having "no familiarity" with ChatGPT; maybe it is due to the lack of knowledge or access concerning using this AI tool. This establishes a baseline understanding of ChatGPT awareness among the participants.

Q4.How often do you use ChatGPT for language learning?

Figure 2. 4: Frequency of ChatGPT Use for Language Learning
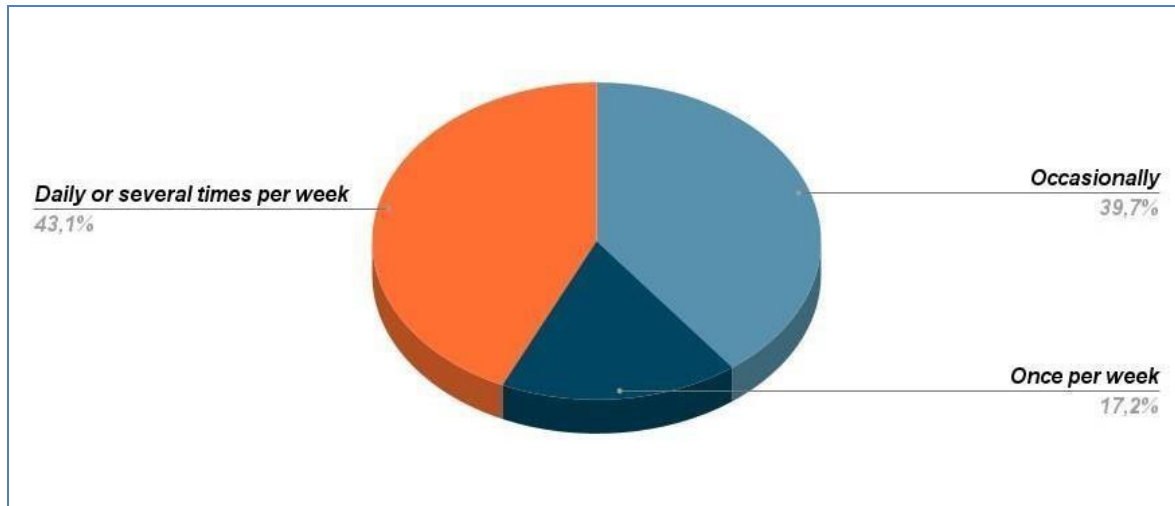
This question effectively explores the frequency of ChatGPT use among EFL students. The results reveal that (43, 1%) of the students use it daily or several times per week. Moreover, (39, 7%) show that they use it occasionally. Both results concerning usage frequency suggest that ChatGPT has become a regularly incorporated resource and an integral part of their language learning. While (17, 2%) of the participants use it once a week,this frequent usage may indicate increased engagement and willingness to learn.

***Q5. How comfortable do you feel using ChatGPT as a learning tool?***

Figure 2. 5: *Students' Comfort Level Using ChatGPT as a Learning Tool.*
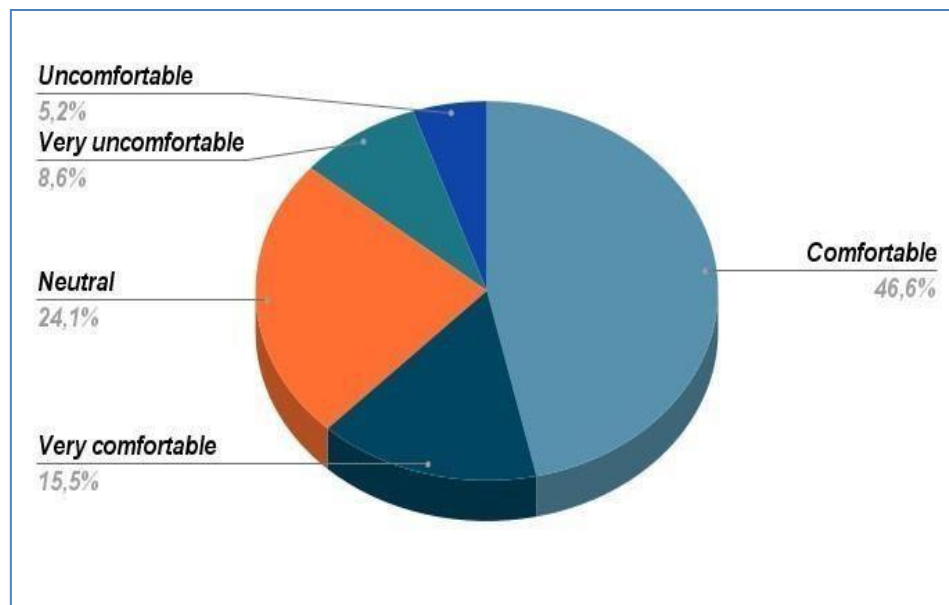
This question aims at discovering the extent to which EFL learners are comfortable when using ChatGPT as a language learning tool. Their comfort level can influence their receptiveness to the tool and potentially impact their motivation. As it is clear in Figure 2.5 clearly shows that (46, 6%) of the participants reported feeling comfortable while using ChatGPT. Moreover, (15, 5%) of the students declared feeling very comfortable, which is an indicator that they became very familiar with the tool and had positive experiences with ChatGPT while using it. The second-highest percentage of the participants (24, 1%) said that they are neutral, which means they are neither comfortable nor uncomfortable. This could suggest students might be cautiously exploring. On the other hand, a minority of the students (5, 2%) stated that they are uncomfortable. Finally, (8, 6%) of the participants expressed feeling very uncomfortable; possibly ChatGPT might not align with their preferred learning style.

Q6. Do you feel motivated to learn English because of the use of ChatGPT?

Figure2. 6: *Assessing Students' Motivation to Learn English Due to ChatGPT.*
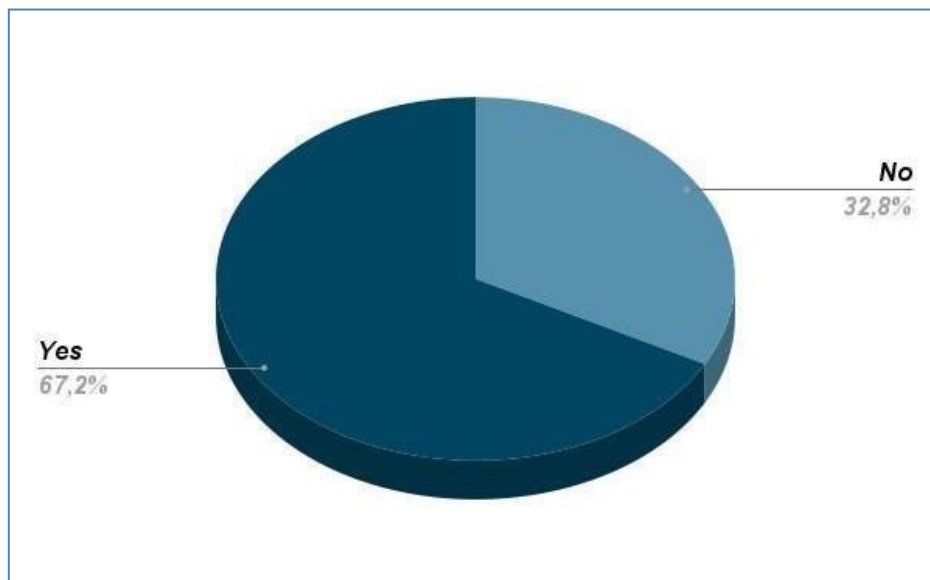
This question aims to understand the EFL learners' perceptions of whether they feel motivated to learn English because of the use of ChatGPT. As figure 2.6 shows, (67, 2%) of the students said that they are motivated to learn English because of the use of ChatGPT. On the other hand, (32, 8%) of the participants stated that using ChatGPT does not really motivate them.

Justification: for the purpose of understanding the reasons behind the participants' choices, they were supposed to specify and justify them. Justification and explanations will be classified into two categories.

Table 2. 1: *Motivational Reasons*

Category	Description	Example Responses
Positive Impact on Motivation.	Students feel ChatGPT motivates them to learn English.	➢ Introduces new features like correcting grammar errors and simplifying complexities. ➢ Provides materials that make learning English easier and more fun. ➢ Makes the learner want to learn more and grasp new ideas and words. ➢ Provides detailed feedback every time, when needed.
Little to No Impact on Motivation.	Students who do not use ChatGPT or do not find it motivating.	➢ It takes more time to observe how it affects their motivation in the future. ➢ I have not used ChatGPT extensively enough to form a solid opinion on its impact on motivation. ➢ Depends on individual learning styles and how it is used.

2.2.1.3.   Relationship between Motivation and ChatGPT

Q7. The following questions are designed to assess your motivation for learning English with the help of ChatGPT. For each item, circle the answer that suits you the most.

Key: 1 = Not at all true; 2 = Not very true; 3 = Sort of true; 4 = Very true.

In this question, the raw data from the responses was coded and inputted into the SPSS – version 23. Next, descriptive Statistics were utilized; all the items representing different motivational factors were likely chosen for analysis. The software produced descriptive statistics tables that summarized the data for each question item, including the name of the motivational factor ("Items"), the total number of participants (58 in this case, "N"), the total score for that factor across all participants ("Sum"), and the average score (calculated by dividing the sum by the number of participants, "Mean"), which represents the central point of the data for each type of motivation (intrinsic, extrinsic, integrative, and instrumental). The ("Standard Deviation"), values provide insight into the variability or the spread of responses. This analysis provided a valuable overview of the central tendency (mean) and variability (standard deviation) of participants' motivation on different aspects related to using ChatGPT for English language learning.

The survey specifies motivational subscales: intrinsic (items 1, 2, and 3), extrinsic (items 4, 5, and 6), integrative (items 7, 8, and 9), and instrumental (items 10, 11, 12, and 13). By following these categories, the score for each subscale can be calculated. This involves summing the mean scores of the corresponding question items within each subscale and then dividing by the number of items in that subscale. This will provide a weighted average score for each motivational type, allowing comparison of the strength of motivation within each category. The higher the weighted average for a subscale, the stronger the motivation in that

particular area. The reliability of the scale of each type of motivation (intrinsic, extrinsic, integrative, and instrumental) was calculated separately. The Cronbach's alpha coefficient for each dimension was as follows:

➤ Intrinsic Motivation: α = 0.80

➤ Extrinsic Motivation: α = 0.74

➤ Integrative Motivation: α = 0.77

➤ Instrumental Motivation: α = 0.75

These coefficients indicate good levels of internal consistency for each dimension, demonstrating that the individual scales are reliable tools for assessing motivation in the context of this study.

Table 2. 2: Interpretation of 4-Point Likert Scale Mean

Likert Scale	Interval	Difference	Interpretation
1	1.00-1.75	0.75	Not at all true
2	1.76-2.51	0.75	Not very true
3	2.52-3.27	0.75	Sort of true
4	3.28-4.00	0.75	Very true

According to Table 2.2, the average scores on a 4-point Likert scale are translated into easy-to-understand interpretations. Each point on the scale, ranging from "Not at all true" to "Very true," is assigned a numerical value. The average score (mean) of all responses determines how students felt overall. For instance, a mean between 1.00 and 2.51 suggests that most participants found the statement to be"Not at all true" or "Not very true". On the

other hand, a mean between 2.52 and 4.00 suggests that they found it to be"Sort of true" or "Very true".

Table 2.3: Intrinsic Motivation Subscale

Items	N	Sum	Mean	Std. Deviation
1. I experience pleasure and satisfaction while learning new things in English.	58	193	3.33	.925
2. I feel a sense of satisfaction when using ChatGPT to learn.	58	190	3.28	.951
3. Learning with ChatGPT is inherently interesting to me.	58	174	3.00	.973
Valid N (listwise)	58			

As Table 2.3 shows, EFL students feel learning with ChatGPT is an enjoyable and satisfying experience, as evidenced by the high mean scores for items such as "I experience pleasure and satisfaction while learning new things in English" (M = 3.33, SD =.925) and "I feel a sense of satisfaction when using ChatGPT to learn" (M = 3.28, SD =.951). Additionally, students believe learning with ChatGPT is inherently interesting, as indicated by the high mean score of (M = 3.00, SD =.973) for the last item. As a result, the subscale score ($\bar{X}$ = 3.20) suggests a high level of intrinsic motivation among the participants, with a low standard deviation indicating less dispersion or variability among participants' responses.

Table 2. 4: *Extrinsic Motivation Subscale*

Items	N	Sum	Mean	Std. Deviation
4. I want to impress my teacher by using ChatGPT effectively.	58	143	2.47	1.127
5. I am afraid of negative consequences if I do not use ChatGPT.	58	121	2.09	.942
6. I want to receive praise from my peers for using ChatGPT.	58	110	1.90	.931
Valid N (listwise)	58			

As illustrated in Table 2.4, EFL students did not believe ChatGPT was primarily serving external purposes, such as seeking positive reinforcement from teachers or parents and avoiding punishment or negative consequences. It is demonstrated by the low mean scores for items such as "I want to impress my teacher by using ChatGPT effectively" (M =2. 47, SD = 1.127) and "I am afraid of negative consequences if I do not use ChatGPT" (M = 2, 09, SD =.942). Moreover, they want to receive praise from their peers for using ChatGPT, as indicated by the very low mean score of (M = 1, 90, SD =.931) for the last item. As a result, the subscale score ($\bar{X}$ = 2.15) suggests a low level of extrinsic motivation among the participants, with a low standard deviation indicating less dispersion or variability among participants' responses for the last two items except for the first item. This could be due to various reasons, such as differences in personal experiences, perspectives, or interpretations of the item.

Table 2. 5: Integrative Motivation Subscale

Items	N	Sum	Mean	Std. Deviation
7. It helps me learn about English speakers and their culture.	58	191	3.29	.973
8. I see using ChatGPT as a way to improve my English skills for real-life communication.	58	166	2.86	1.034
9. I feel a sense of belonging when using ChatGPT to learn English.	58	142	2.45	.958
Valid N (listwise)	58			

As Table 2.5 shows, EFL students believe ChatGPT is a tool to learn about English speakers and their culture and improve their English skills for communication. As it is clearly demonstrated by the high mean scores for items such as "It helps me learn about English speakers and their culture" (M = 3.29, SD =.973) and "I see using ChatGPT as a way to improve my English skills for real-life communication," (M =2.86, SD = 1.034). On the other hand, students did not feel a sense of belonging when using ChatGPT to learn English, as indicated by the low mean score of (M = 2.45, SD =.958). As a result, the subscale score ($\bar{X}$ = 2.87) suggests a high level of integrative compared to extrinsic motivation among the participants, with a lower standard deviation for the first and last items and a higher standard deviation for the second item.

Table 2. 6: *Instrumental Motivation Subscale*

Items	N	Sum	Mean	Std. Deviation
10. It helps in completing specific tasks or assignments (e.g., research papers, presentations, exams).	58	195	3.36	.968
11. It enables me to access to information and resources that are only available in English.	58	192	3.31	.977
12. I perceive using ChatGPT as a mean to achieve academic success.	58	190	3.28	.933
13. I believe using ChatGPT will help me in my future career.	58	183	3.16	.988
Valid N (listwise)	58			

As illustrated in Table 2.6, EFL students believe using ChatGPT serves practical purposes, access information and resources available only in English, and complete specific tasks or assignments. As it is evidenced by the high mean scores for items such as "It helps in completing specific tasks or assignments"(M = 3.36, SD = .968) and "It enables me to access information and resources that are only available in English" (M = 3.31, SD = .977). In addition to the high mean scores of the items "I perceive using ChatGPT as a mean to achieve academic success"(M =3.28, SD = .933) and "I believe using ChatGPT will help me in my future career"(M = 3.16, SD = .988). As a result, the subscale score ($\bar{X}$ = 3.28) suggests a high level of instrumental motivation among the participants, with a lower standard deviation indicating less dispersion or variability among participants' responses.

2.2.1.4.   Further Suggestions

Q8. If you have any additional suggestions or comments that you would like to add about our topic, please do not hesitate to help us.

This question aims to understand different EFL learners' views regarding suggestions for this research. There were 58 responses. The majority of respondents agreed that using ChatGPT has become a part of their learning. They noted that it motivated them and helped in developing their learning skills.

Some learners said that ChatGPT is among the very important tools that help students study. Moreover, embracing these tools enables students to delve into an extensive universe of knowledge, thereby fostering intellectual curiosity, and innovative problem-solving skills essential for academic and professional success. In the same vein, they believed that ChatGPT motivated them by simplifying and facilitating access to different information as well as customizing the answers. In this sense, it somehow reduced the pressure of learning, which made them feel at ease. Additionally, students felt comfortable and competent while using it to search for specific and detailed information or for more explanation, since it could provide useful explanations accompanied by good examples that could be a source of motivation to learn more and discover new things. On the other hand, it cannot be denied that some learners suggested not using this tool for language learning and rely on it, since it might cause some academic issues such as authenticity and reliability. Moreover, some learners said that they need to remember and understand that it is a boot, not a human being, because it lacks lots of crucial aspects like cultural contexts or human emotions. To conclude, they suggested adding audiovisual services to this tool to enable them to use it more effectively and efficiently.

2.2.2. Discussion of the Main Findings

Analyzing the students' questionnaire has revealed many results about the impact of using ChatGPT on EFL learners' motivation. Their level of English was generally acceptable, which permitted us to rely on their answers in our research work. Most responses affirmed ChatGPT's impact on EFL learners' motivation. They felt motivated to learn English after using ChatGPT. As a result, participants exhibited a varied motivation profile when learning English with ChatGPT. While there is a strong emphasis on instrumental and intrinsic motivation, indicating a practical desire to achieve specific outcomes, there is also a notable presence of integrative motivation, suggesting genuine interest and a broader desire for cultural and personal development. Extrinsic motivation appears to be the weakest aspect, indicating that external purposes play a lesser role in using ChatGPT for English language learning. Based on the results gained from this study we can answer research questions asked in the beginning of this dissertation.

The utilization of ChatGPT typically increases the motivation of EFL learners to engage in learning. Over (90%) of the participants were familiar with ChatGPT, and over (80%) reporting regular use, indicating a strong interest in the tool. Approximately (67%) of the students expressed feeling motivated to learn English because of the use of ChatGPT. This demonstrates the tool's effectiveness in enhancing students' enthusiasm and engagement in learning English.

ChatGPT influences both intrinsic and extrinsic motivation in EFL learners. Intrinsic motivation ($\bar{X} = 3.20$) was evident, with students finding learning with ChatGPT enjoyable and inherently interesting. However, extrinsic motivation ($\bar{X} = 2.15$) had a low impact, with learners not feeling motivated by external factors such as impressing teachers or receiving

praise from peers. This indicates that the inherent enjoyment and interest in using ChatGPT play a crucial role in motivating learners.

Instrumental motivation ($\bar{X} = 3.28$) had the strongest influence on EFL learners' motivation to learn with ChatGPT. This indicates that learners considered ChatGPT as a practical tool to achieve their language learning goals, such as completing assignments and accessing English-language resources. Intrinsic motivation ($\bar{X} = 3.20$) was also prominent, with students finding learning with ChatGPT enjoyable and inherently interesting. Moreover, integrative motivation ($\bar{X} = 2.87$) also played an important role, with learners showing a genuine interest in learning English for cultural understanding and improve their English skills for real-life communication. However, extrinsic motivation ($\bar{X} = 2.15$) had the weakest impact, indicating that external purposes such as impressing teachers or receiving praise were less influential.

The results from the data analysis strongly support our hypothesis that suggests that ChatGPT use increases EFL learners' motivation, primarily through instrumental and intrinsic motivation. The findings show that learners experience an increased motivation to engage in English learning when using ChatGPT, driven by both the practical advantages it offers (instrumental motivation), and the interest it sparks (intrinsic motivation). Therefore, the hypothesis is confirmed by the empirical evidence gathered from the study.

The findings of our study align with previous research by Ali and Mohammed (2023). They looked into how ChatGPT affects learning English. A quantitative research design was implemented to obtain data from 80 instructors and learners who utilized the ChatGPT throughout the initial phase in early 2023. A non-probability sampling method was employed to select participants for an online survey.The findings demonstrated that the use of ChatGPT generally motivates learners, and improve their reading and writing skills. Additionally, the

results suggested that using ChatGPT-based education as a language learning tool, rather than focusing on potential negative consequences.

2.2.3. Limitations of the Study

This study was conducted to get trustworthy data in order to achieve the major goal of this research. Researchers encountered few limitations. The first issue was time limits, which was the primary roadblock in our way of carrying out this research. The second difficulty was the small number of learners who answered the questionnaire. In addition to the lack of variety in the sample in terms of gender, only a small number of participants were males, which made the chances unequal. Another obstacle that comes across is the attempt to investigate the impact that ChatGPT exerts on EFL learners' motivation using a questionnaire. The results gathered through this means of research are sometimes contradictory, and the researchers cannot get satisfactory answers.

Conclusion

This chapter of the study focuses on its practical aspect. It investigated the impact of using ChatGPT on EFL students' motivation. To answer the research questions, a students' questionnaire devoted to Master 1 EFL students at AbdElhafidBoussouf University Centre of Mila was conducted. The obtained results showed that ChatGPT has a positive impact because it increases learners' motivation and desire to learn English.

General Conclusion

Artificial intelligence has brought a lot of changes to the field of education. It made clear transformations in learning English as a foreign language. Nowadays, the use of AI tools in learning is increasing gradually. In schools and universities, we can notice that EFL learners do rely on ChatGPT. This may affect, in some way or another, the motivation and desire of students to learn.

This study is organized into two main chapters; the first covers the theoretical basis, while the second covers the practical field work.The introductory chapter is further divided into two sections: The first section introduces ChatGPT, providing an overview of this AI tool. It also covers the emergence of ChatGPT and its use in education, including its benefits and limitations in educational settings. Finally, the researchers discuss some ethical considerations related to using ChatGPT. The second section starts with an overview of the concept of motivation: its definition, main types, and theories. It also covers the factors that influence the motivation of EFL learners and provides guidance on how to assess motivation. This section ends by presenting the importance of motivation in second language learning. The second chapter, which is the practical field work, encompasses the research method, and data collection tools in its first section. While the second section deals with data analysis ,interpretation ,and discussions, followed by the limitations of the study. In addition to offering some recommendations for teachers, learners, and further research, Moreover, it sheds light on the main ethical issues that should be taken into consideration when utilizing this AI tool.

The main aim of this study is to investigate the impact of ChatGPT on EFL students' motivation to learn. The specific objectives are to determine whether ChatGPT increases or decreases students' motivation and to understand its impact on various aspects of motivation,

such as instrumental, intrinsic, extrinsic, and integrative motivations. We aim to fill in the existing knowledge gap and to inform educators and institutions about the role of AI-driven tools like ChatGPT in language learning and pedagogy. In this research work, the researchers seek to find the answer for the following research questions:

- Does the use of ChatGPT increase or decrease EFL learners' motivation to learn?

- How does ChatGPT influence the intrinsic and extrinsic motivation of EFL learners?

- Which type of motivation is most influenced by EFL learners' use of ChatGPT?

The previous questions lead to the formation of the following hypothesis:

- ChatGPT use increases EFL learners' motivation, primarily through instrumental and intrinsic motivation.

To answer the research questions listed above and prove the research hypothesis, a descriptive method was used to reinforce and prove the arguments presented in the theoretical sections. The main data collection tool was a single questionnaire, which was administered to 58 randomly selected Master 1 EFL learners from Mila University Center's Department of Foreign Languages. This sample was chosen from a population of 115 students based on the assumption that they have an advanced level of English and are likely to be motivated learners. Descriptive statistics were used to analyze the quantitative data from the questionnaire, which was then displayed using tables.

The answers of learners showed that using ChatGPT has a positive impact on enhancing Master 1 EFL students' motivation to learn. Most of the participants were familiar with this AI tool and used it a lot, showing a significant interest in its capabilities. In accordance with the results taken from the motivational scale, it is clear that ChatGPT has a great influence on instrumental motivation, with an average score of ($\bar{X} = 3.28$). This indicates that learners

considered ChatGPT as a practical tool to achieve their language learning goals. Moreover, it has an impact on intrinsic motivation, with an average score of ($\bar{X}$ = 3.20) because participants find learning with ChatGPT enjoyable and inherently interesting. There is also a notable presence of integrative motivation, with an average score of ($\bar{X}$ = 2.87), suggesting a broader desire for cultural and personal development. On the other hand, extrinsic motivation appears to be the weakest aspect, with an average score of ($\bar{X}$ = 2.15), learners did not believe ChatGPT as primarily serving external purposes, such as seeking positive reinforcement from teachers or parents and avoiding punishment or negative consequences.

According to the data obtained and its interpretation, the researchers suggested a number of recommendations for both teachers and institutions to improve the use of ChatGPT for learning. For improved performance, it is first necessary to increase students' knowledge about the use of ChatGPT in the EFL learning process. Moreover, educational institutions are asked to help and encourage their learners with extra information on how to develop and use ChatGPT in the context of learning. Additionally, teachers are suggested to show students how to benefit positively from ChatGPT instead of fearing its negative impacts.

Despite ChatGPT's benefits, ethical issues have also been raised about this AI tool. Atlas, Rahman, and Watanobe (2023) addressed these problems in their study, and one of the participants verified that ChatGPT is occasionally untrustworthy since it contains erroneous information, biased facts, and fake references. Using ChatGPT efficiently requires being aware of its limitations. So, learners should double-check the information they receive from ChatGPT. This emphasizes the importance of training and raising awareness about both its benefits and drawbacks.

Future research should consider increasing the sample size, expanding the target population, receiving evaluations from teachers, and incorporating qualitative dimensions, such as in-depth interviews, to further explore specific factors contributing to the data.

As a concluding statement, one might add that the present study has attempted to investigate the impact of ChatGPT on the motivation of EFL learners to learn. Hereby, it is confirmed that the use of this AI tool has a positive effect on students' motivation.

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Students' Questionnaire

Dearstudents,

This questionnaire is a part of our master dissertation; it aims at collecting data about the impact of using ChatGPT on EFL students' motivation to learn so, you are kindly requested to participate in the present survey by answering the following questions; your answers will be anonymous and confidential. So please feel free to provide something sincere.

Please put a tick (√) in the corresponding chosen answer, and make full statements whenever necessary.

Section One: Background information

1. Gender:

Male □   Female □

2. English proficiency level:

Beginner □   Intermediate □   Advanced □

Section Two: The use of ChatGPT

3. How familiar are you with ChatGPT, as a language learning tool?

Very familiar□   Somewhat familiar□   Not particularly familiar □

4. How often do you use ChatGPT for language learning?

Daily or several times per week□   Once per week□   Occasionally □

5. How comfortable do you feel using ChatGPT as a learning tool?

Very uncomfortable ☐   Uncomfortable☐   Neutral☐   Comfortable ☐   Very comfortable☐

6. Do you feel motivated to learn English because of the use of ChatGPT?

Yes ☐   No☐

* Pleasejustify:

………………………………………………………………………….........................

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Section Three: Relationship between Motivation and ChatGPT

7. The following questions are designed to assess your motivation for learning English with the help of ChatGPT. For each item, circle the answer that suits you the most.

   (1= Not at all true;2= Not very true;3= Sort of true;4= Very true).

   - **I use ChatGPT because:**

	1	2	3	4
1. I experience pleasure and satisfaction while learning new things in English.	1	2	3	4
2. Learning with ChatGPT is inherently interesting to me.	1	2	3	4
3. I feel a sense of satisfaction when using ChatGPT to learn.	1	2	3	4
4. I want to impress my teacher by using ChatGPT effectively.	1	2	3	4
5. I am afraid of negative consequences if I do not use ChatGPT.	1	2	3	4
6. I want to receive praise from my peers for using ChatGPT.	1	2	3	4
7. It helps me learn about English speakers and their culture.	1	2	3	4
8. I see using ChatGPT as a way to improve my English skills for real-life communication.	1	2	3	4
9. I feel a sense of belonging when using ChatGPT to learn English.	1	2	3	4

10. I perceive using ChatGPT as a mean to achieve academic success.	1	2	3	4
11. I believe using ChatGPT will help me in my future career.	1	2	3	4
12. It enables me to access to information and resources that are only available in English.	1	2	3	4
13. It helps in completing specific tasks or assignments (e.g., research papers, presentations, exams).	1	2	3	4

Section Four: Further Suggestions

− If you have any additional suggestions or comments that you would like to add about our topic, please do not hesitate to help us.

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You are much appreciated for your collaboration.

RÉSUMÉ

L'intelligence artificielle a apporté plusieurs changements dans le domaine de l'éducation, notamment dans l'apprentissage de l'anglais en tant que langue étrangère. Actuellement, l'utilisation de systèmes d'IA pour l'apprentissage augmente. Dans les écoles et universités, les étudiants en anglais langue étrangère (EFL) comptent sur ChatGPT, ce qui peut influencer leur motivation et leur désir d'apprendre. Cette étude examine l'impact de ChatGPT sur la motivation des étudiants en EFL. Trois questions principales sont posées : ChatGPT augmente-t-il ou diminue-t-il la motivation des apprenants en EFL ? Comment influence-t-il la motivation intrinsèque et extrinsèque ? Quel type de motivation est le plus affecté par ChatGPT ? L'hypothèse est que ChatGPT accroît la motivation des apprenants en EFL, principalement via la motivation instrumentale et intrinsèque. Pour tester cette hypothèse, une étude descriptive avec une approche quantitative a été menée, utilisant un questionnaire incluant une échelle de motivation. Ce questionnaire a été administré à 58 étudiants en Master 1 en EFL à l'Université AbdElhafid Boussouf Centre-Mila. Les résultats suggèrent que ChatGPT accroît la motivation des apprenants en EFL, surtout grâce à la motivation instrumentale et intrinsèque. De plus, les participants ont montré une motivation intégrative, signifiant un intérêt pour le développement culturel et personnel. Cependant, la motivation extrinsèque semble être la moins influencée. L'étude conclut avec des recommandations pour les enseignants, les apprenants et les futures recherches, pour se concentrer davantage sur la motivation des apprenants lors de l'utilisation de ChatGPT dans l'apprentissage de l'EFL.

Mots-clés : intelligence artificielle, motivation, apprenants EFL, ChatGPT, motivation intrinsèque et extrinsèque.

الملخص

لقد أحدث الذكاء الاصطناعي العديد من التغييرات إلى مجال التعليم. وقد أسفر عن تحسينات كبيرة في تعلم اللغة الإنجليزية كلغة أجنبية. في الوقت الحاضر، يزداد استخدام أنظمة الذكاء الاصطناعي للتعلم بشكل مستمر. في المدارس والجامعات، لاحظنا أن طلاب EFL يعتمدون علىChatGPT، مما قد يؤثر على حافزهم ورغبتهم في التعلم. ونتيجة لذلك، تسعى هذه الدراسة إلى التحقيق في تأثيرChatGPTعلى حافز طلاب EFL للتعلم. تم طرح ثلاث أسئلة بحثية رئيسية: هل استخدامChatGPTيزيد أو يقلل من حافز طلاب EFL للتعلم؟ كيف يؤثرChatGPTعلى الحافز الداخلي والخارجي لطلابEFL ؟ أي نوع من الحافز يتأثر أكثر باستخدام طلاب EFL لـChatGPT؟ لذا، من المفترض أن استخدامChatGPTيزيد من حافز طلابEFL، أساساً من خلال الحافز الآلي والداخلي. لاختبار الفرضية، تستخدم الدراسة تصميم بحث وصفي مع نهج كمي، باستخدام استبيان يتضمن شكلاً من مقياس الحافز بين أسئلة أخرى. تم تطبيقه على 58 طالبًا في الماجستير 1 في EFL بجامعة عبد الحفيظ بوسوف – ميلة. تشير النتائج إلى أن استخدامChatGPTيزيد من حافز طلابEFL، الذي يقوده أساساً الحافز الآلي والداخلي. علاوة على ذلك، أظهر المشاركون وجود حافز تكاملي، مما يدل على اهتمام أعمق بالتطوير الثقافي والشخصي. ومع ذلك، بدا أن الحافز الخارجي هو الأقل تأثيرًا. تختتم الدراسة بتوصيات مهمة للمعلمين والمتعلمين والبحث المستقبلي بهدف التركيز بشكل أكبر على حافز المتعلمين عند الاستخدام.

الكلمات المفتاحية : الذكاء الاصطناعي، التحفيز، متعلمي اللغة الإنجليزية كلغة أجنبية، شات جي بي تي، التحفيز الداخلي والخارجي.