

The Role of Chat GPT in Promoting EFL Students' Autonomous Learning: Teachers' Perspectives

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Abstract

The revolution in technology with the emergence of Artificial Intelligence (AI) imposed looking for innovative strategies and methods to teach English as a foreign language. The use of ChatGPT can enhance the performance of AI platforms by generating natural responses, and providing personalized learning for students. Eventually, the use of ChatGPT in Foreign Language Learning (FLL) seems to be a promising option to foster students' autonomous learning. For this reason and others, this study aims to identify the perceptions of Moroccan teachers towards the use of ChatGPT in promoting students' autonomy in EFL learning. To achieve this purpose, the research adopted a quantitative research method approach using an online close-ended questionnaire sent to 60 Moroccan EFL teachers. The data gathered from the respondents was analyzed through the Statistical Package of Social Sciences (SPSS). The study revealed that teachers believe ChatGPT can have a positive impact on students' autonomy, nonetheless, they confirmed a number of challenges and suggested strategies to be used to face this latter. The current research will guide future researches on the use of AI in enhancing students' autonomous language learning.

Keywords: Artificial Intelligence, Teachers' perceptions, ChatGPT, autonomous learning,

Introduction

In this new era of globalization, the advances in science and technology have pushed educators worldwide to think of creative approaches and methods to language teaching and learning. ChatGPT is one of the trendiest AI systems that has drastically changed educators' perspectives on Information and Communication Technology (ICT) by introducing unprecedented levels of interactivity with humans.

Nevertheless, the use of ChatGPT in language teaching and learning is still at its infancy stage. Further research is needed to have an in-depth understanding of this AI tool by devoting much attention to its use in education. Also, teachers and students must be fully integrated in this process in order to translate this understanding into strategies and methods that can develop students' autonomous language learning. The ultimate purpose of this study is to identify the perceptions of Moroccan EFL teachers towards the role of ChatGPT in promoting students' autonomous learning and to propose strategies for an effective use of this AI system in EFL classrooms.

Literature Review:

1. Autonomous or Self-regulated learning

Learners' autonomy or self-regulated learning has been much discussed in literature as a result of the shift in educational psychology from teacher-centered to learner-centered approaches and methods. With the focus on the learner as an active participant in the language teaching and learning process, research on learners' individual differences and aptitudes directed the emphasis towards students' motivations and readiness to learn (Zimmerman, 2002). One of the most cited definitions of autonomy was proposed by Holec (1981) as "the ability to take charge of one's own learning". Later, other definitions focused on how learners' can monitor their learning. Pintrich (2000) defined self-regulated learning as "an active, constructive process whereby, learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment."

In the same vein, Zimmerman (2000) confirmed that self-regulation is not an ability or a skill but an activity that students engage in to transfer their mental abilities into academic skills. Students regulate their cognition, feelings and behaviors to reflect upon their learning progress and reach their already set goals. While, Benson (2006) considers autonomy in learning as the capacity of the learner to take more control over the learning process, however, this requires a set of abilities and attributes to make decisions upon the learning goals and methods.

Research has shown that when students have the opportunity to make choices over their learning, their intrinsic motivation is increased and they feel a greater sense of control over the educational outcomes (Anderman & Anderman, 2020). Students with high concern for learning were reported to use more self-regulatory strategies and performed well academically (Bouffard et al., 1995). That is why, learners' autonomy is widely sought among language teachers, researchers and psychologists to increase learners' motivation and self-efficacy.

Students' autonomous learning is the keystone to developing life-long learners through ongoing self-reflection. When learners are encouraged to take responsibility for their learning, they are able to identify their needs, lacks and necessities. Then, they can evaluate their learning and find the right strategies to overcome their limitations and meet their learning objectives. Thus, these reflections form the basis for a cyclic learning process where previous experiences scaffold future learning (Reinders, 2010). Moreover, enabling the students to independently discuss and analyze their individual experiences and observations on the teaching and learning practices, supports their awareness of the various learning situations and the individual learners that exist (Oates, 2019).

As a result, the trial-and-error cycle that students engage in, allows them to develop self-regulatory processes which enhance various self-motivational beliefs such as self-efficacy, outcome expectations, learning goal orientation, and intrinsic interest (Zimmerman, 2002). Eventually, students will be able to transfer the autonomous behavior to all areas of life to become more productive and effective members of the community (Little, 1999).

2. Autonomy in EFL learning

Research in educational psychology has demonstrated the pivotal role of learners' autonomy in language learning. Starting with the first language development as one of the most natural phases that children go through, Little (1999) argued that the child's readiness to acquire the first language is generated by the different interactional situations that he or she is exposed to.

In other words, the child's cognitive development and first language acquisition is conditioned by his or her ability to meet the communicative demands of his interactive environment. Thus, there is "an unconscious autonomy" that guides the child in his or her cognitive development and ultimately in his or her first language acquisition.

Similarly, the second and foreign language teaching and learning have always aimed at allowing learners to use the target language for communicative purposes. One of the most influencing approaches in ESL and EFL language teaching is the communicative approach (CLT), which considers the learner as an active participant in the teaching and learning process. Furthermore, it supports many of the principles of social constructivism by regarding the use of authentic language as unseparated from the social context of the learner. This latter, is given various opportunities to interact with the teacher and peers in order to build up the adequate strategies to use the language communicatively. Learners should choose the most appropriate forms given the social context, the roles of interlocutors and manage the process by negotiating meaning. In short, learners are given the possibility to monitor their language learning to achieve their learning goals.

According to Little (1999), the communicative efficiency of Second or Foreign language learners requires them to have a high degree of autonomy reflected in their self-reliance, self-confidence, independence to fulfil the different social, psychological and discourse roles they are called upon to use the target language. However, in the EFL context, prescriptive curriculum, textbook-based learning, exam-based material, class size, mixed-levels of proficiency, and low motivation among learners have made it difficult to put into practice the concept of autonomy (Rahman, 2018). Eventually, the supportive role of the teacher in fostering learners' autonomous learning is of paramount relevance in the ESL and EFL context.

3. Autonomous learning: Teachers' beliefs and practices

The role of the teacher is a determining factor in developing learners' self-efficacy in language learning (Little, 1999; Zimmerman, 2000; Pintrich, 2003; Reinders, 2010; Oates, 2019). Yet, teachers' beliefs and perceptions of learners' autonomy guide teachers' practices and shape their roles inside the classroom.

In literature, few studies addressed language teachers' beliefs about learner autonomy (Borg and Al-Busaidi, 2012). Wang et al. (2023) concluded in their study that learner autonomy is generally accepted among English teachers in Chinese universities. Still, there is a wide gap between teachers' perceptions and their teaching practices, and that factors such as culture and Chinese traditional teaching mode negatively affect the effective fulfillment of learner autonomy. Likewise, in a study conducted by Borg and Al-Busaidi (2012), teachers expressed clearly their positive attitudes towards the concept of learner autonomy and its benefits for language learners. Nonetheless, they found out a significant mismatch between teachers' perceptions and their feasibility especially at the levels of assessment and materials due to factors related to the teacher, the learner and the institution.

Reinders and Lazarou (2011) revealed that teachers view the development of learner autonomy as the key to successful teaching and learning. Nevertheless, at the level of practice, students seem not to be fully aware of the importance of autonomy in their learning and appear to lack many of the required self-regulatory skills to reach autonomy. Consequently, teachers appear in great need of support and professional training so as to assume the role of facilitators and implement learners' autonomy effectively in the classroom. In short, teachers' positive attitudes and perceptions towards the importance of learner autonomy are insufficient to make learners take in charge of their learning inside and outside the classroom.

Many approaches and models have been proposed to guide teachers' practices in order to help the learners develop the necessary skills to foster autonomy. On the one hand, teachers' intrinsic motivation for the teaching of autonomy can be contagious to learners and increases their motivation and readiness to monitor their learning (Oates, 2019). And, the transition from a teacher-centered to a learner-centered environment is highly recommended to give students more power over their learning.

On the other hand, this is obviously not an easy task for teachers who are used to solely decide for the course materials, methods and assessment. Also, the role of the teacher changing from a conveyer of knowledge to a facilitator or counselor seems to be quite challenging (Little,1999). As a result, teacher-based approaches to autonomy highlight the impact of teacher professional development and teacher education on improving their agency, skills and competence to effectively guide learners towards autonomy.

4. The use of technology in promoting autonomy

In recent years, the role of technology has changed from being a tutor to being a tool to communicate, due to shifts in pedagogical theoretical position from behaviorism to socio-constructivism. A wide range of technological devices, applications and environments are used in language teaching and learning. Devices such as Personal Digital Assistants (PDA), laptops, smart phones, Mp3s, Interactive white boards and others. Also, technological applications and software packages like Word processors, media production and presentation programs, in addition to technological environments of the World Wide Web and all its affordances (blogs, online dictionaries, wikis, corpora and others).

The varied affordances of technology provide language learners with better chances to monitor their learning and assess their progress. Due to the lack of authentic resources and limited hours in EFL classrooms, technology can offer multiple sources for authentic materials outside the classroom and increases students' self-reliance (Rahman,2018). By being able to access information from any location and at whatever time, technology makes it possible for students to learn at their own pace and rhythm. This flexibility allows students to reflect upon their learning and to develop their metacognitive awareness. Moreover, technology proposes rich materials to students that match their individual needs and interests and account for their various learning strategies. So, technology does not only provide access to different resources but also increases students' autonomy (Reinders and White ,2011).

Many studies investigated the relationship between autonomy and technology and the correlation seems to be a significant one (Benson,2004; Reinders,2011; Beatty,2010; Lee,2011). In their overview, Reinders and White (2018) came up with a model that shows the convergence between autonomy and technology in the last two decades.

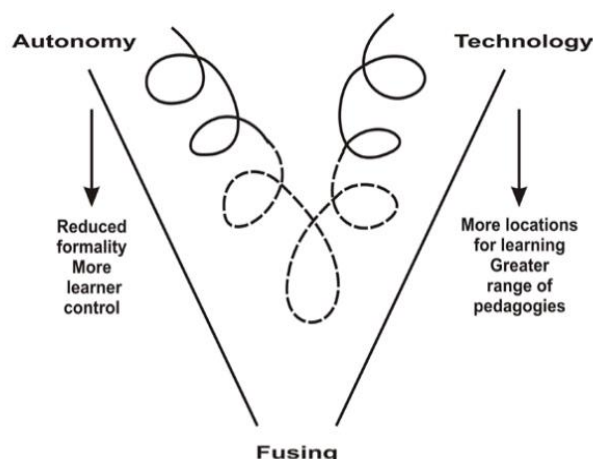


Figure 1. A model of convergence

Figure 1: A model of convergence (Reinders and White, 2018)

The model represents how autonomy and technology were dealt with separately, until recently, they reached a fusion where one influences the other, giving the chance to more learners' control. Nevertheless, the ubiquitous evolution of technology raises a number of challenges for teachers to adjust their teaching practices and to engage students in taking decisions and making choices, so that they can go in parallel with the great revolution in technological systems.

5. Artificial Intelligence: The new promise in education

Artificial Intelligence (AI) has known a great interest lately as one of the trendiest fields in research which impacts many areas of society. AI is based on mimicking human intelligence to do tasks and improve their performance (Anders, 2023). Though it has gained huge emphasis recently, it has been around since the 1950s and has taken different forms. Today, the general excitement over AI is due to a brand-new class of AI that utilizes very sophisticated kind of statistical patterns recognition and generating new patterns namely neural networks, machine learning and deep learning (Toyama, 2023).

With the rise of generative AI and the great interest it has triggered worldwide, the implementation of GenAI tools in education has gradually gained attention. The use of AI in education promises to innovate the teaching and learning practices and promote students' life-long learning. Anderson (2023), in his book of Generative AI prompts for teachers, believes that Edtech enhances learning, supports teaching and reduces workload. In other words, this type of human-machine offers the possibility to change the way we learn, memorize, create and access information (Popenici et kerr,2017).

According to the UNESCO (2021), AI applications that are meant to be used for educational purposes are divided into four needs-based categories: education and management delivery, learning and assessment, empowering teachers and enhancing teaching, and lifelong learning. Thus, AI is expected to have an impact on different aspects of the teaching and learning process. However, for an effective use of these applications, it is essential to adopt a well-established approach to take advantage of all their possible affordances. In the same vein, The UNESCO has summarized a number of regional and national policies concerned with the implementation of AI in education in different countries like China, UAE, USA and others. The summary is presented in the following table:

TABLE 3: OVERVIEW OF POLICY GUIDELINES ASSOCIATED WITH AI IN EDUCATION

	APPROACHES		
	Independent	Integrated	Thematic
Argentina		Aprender Conectados (Ministry of Education, Argentina, 2017)	
China	Next Generation Artificial Intelligence Plan (Government of the People's Republic of China, 2017).		New ICT Curriculum Standards for Senior High School (Ministry of Education, People's Republic of China, 2017) Innovative Action Plan for Artificial Intelligence in Higher Education Institutions (Ministry of Education, People's Republic of China, 2018)
Estonia			ProgeTiger Programme (HITSA, 2017)
European Union	The Impact of Artificial Intelligence on Learning, Teaching, and Education (Tuomi, 2018)		GDPR (European Union, 2016, 2018) DigComp (Carretero et al., 2017)
Malaysia		#mydigitalmaker (Ministry of Education & Malaysia Digital Economy Corporation, 2017)	
Malta	Towards an AI Strategy. High-level policy document for public consultation (Government of Malta, 2019)		
Republic of Korea	Mid- to Long-Term Plan in Preparation for the Intelligent Information Society (Government of the Republic of Korea, 2016)		
Singapore			Code@SG Movement-Developing Computational Thinking as a National Capability (Infocomm Media Development Authority, 2017)
United Arab Emirates	UAE Strategy for Artificial Intelligence (United Arab Emirates, 2017)		
United States of America	National Artificial Intelligence Research and Development Strategic Plan (National Science and Technology Council, 2016)		

Table 2: Overview of policy guidelines associated with AI in education (UNESCO,2021)

Examining these policies of AI implementation shed light on certain controversial issues. First, the importance of governance of data and privacy. In addition to the ability to ensure a universal equal access to AI data and applications and finding the necessary financial support to fund AI implementation in various educational institutions. Last but not least, the need for innovative curriculum development that keep up with AI latest technological gadgets and applications.

6. ChatGPT and autonomous learning: Advantages and limitations

One of the most recently used AI advancements is Large Language Models ChatGPT, that has fascinating opportunities of generating natural language and more engaging interactions, making it easier for users to communicate and collaborate with AI systems. ChatGPT is a natural language processing model developed by OpenAI, launched on November 2022, and that uses deep learning techniques to generate humanlike responses to text-based prompts.

It is one of the most advanced language models currently available, with the ability to understand complex sentences, generate coherent responses, and provide suggestions for improving writing. It opened doors to a lot of applications like stable diffusion, adobe firefly and others, that could use human-like language in different disciplines.

This revolutionary AI technology utilizes a combination of deep learning, natural language understanding, and text generation algorithms to understand what its user wants so as to respond in an appropriate manner.

The emergence of ChatGPT has raised questions around its impact on education and particularly on students' personalized learning. In literature, researchers confirm the positive impact of ChatGPT on reinforcing students' autonomous learning (Ma, 2023; Dai et al.,2023; Belgas et al.,2023; Firat,2023; Giannini,2023; Agustini,2023; Weller,2023), however, they do not hide their concerns regarding all the controversies it triggers.

Methodology

With the emergence of ChatGPT, new opportunities appear to be available to promote students' autonomous learning. Nevertheless, ChatGPT has a number of limitations that make it hard for teachers, students, researchers and stakeholders to understand its real potential in fostering students' autonomous language learning. Against this backdrop, the main purpose of the study was to identify the perceptions of Moroccan EFL teachers about the role of ChatGPT in enhancing EFL students' autonomous learning and to suggest effective strategies to cope with the challenges faced using AI systems.

Any well-grounded study should follow a research design which constitutes the overall strategy that a researcher chooses to integrate the different research components in a logical and coherent way to effectively address the research problem (Creswell & Creswell, 2018). The current study adopted a quantitative methods approach that collects and analyses numerical data to describe Moroccan EFL teachers' perceptions. There are different research designs that can be used in quantitative research, but the choice of design is highly determined by the research problem, the population to be studied and the data collection and analysis methods selected (Kothari, 2004). As a result, this research utilized a survey design that aims to describe the opinions, attitudes, experiences and other characteristics of a group of individuals or an entire population (Creswell & Creswell, 2018). In addition to being economical, time and energy saving, this design enabled the researcher to describe the perceptions of Moroccan EFL teachers concerning the role of ChatGPT in promoting autonomous learning.

Sampling

The urgent need for developing students' self-regulated learning through AI, does not exclude the pivotal role of teachers in the EFL classrooms. The survey at hand targeted Moroccan EFL teachers as a population of the study due to many reasons. First, previous researches demonstrated that teachers have a limited understanding of ChatGPT use. Besides, they seem more skeptical about its usefulness, which affects their perceptions and practices (Nguyen, 2024; Mai et al., 2024). Second, discussions around teachers' use of ChatGPT in Moroccan education are still at their preliminary stages, as there is a noticeable lack of literature about the issue and especially its relationship with students' autonomous learning.

Finally, teachers assume a great responsibility in ensuring an effective and proper use of ChatGPT in EFL classrooms. Without teachers' guidance and support, students may use ChatGPT in ways that limit their autonomy and inhibit their creativity, critical thinking and other skills. Eventually, it is important to understand teachers' perceptions and beliefs so as to refine their practices and suggest strategies that can develop EFL students' autonomous learning via ChatGPT usage in foreign language learning.

The sampling strategy used in this research is convenience sampling. It is one of the non-probability sampling methods for both quantitative and qualitative data collection and by which the researcher selects samples based on his or her subjective judgment rather than on random selection.

Convenience sampling results into a sample available to the researcher by virtue of its accessibility especially if the participants are drawn from a close population group. It's the most common non-probability sampling method used because of its speed, cost-effectiveness and availability of the sample (Creswell & Clark, 2018). The use of convenience sampling facilitates the research process as there are few rules that govern the collection of data and the data is immediately available.

Data collection and analysis

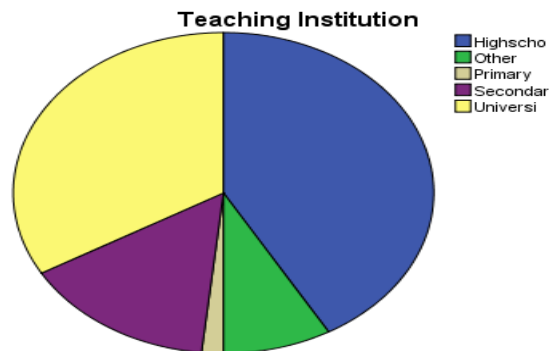
The research instrument used to collect data is an online close-ended questionnaire sent to Moroccan EFL teachers. The questionnaire items included yes or no, multiple choice and Likert questions, adopted and adapted from previous literature on the topic. Eventually, 60 Moroccan EFL teachers responded to the questionnaire over a four weeks period.

To achieve the research purpose and objectives, the data gathered was entered and codified in Statistical Package for Social Sciences (SPSS) for the processing and analysis of data. The type

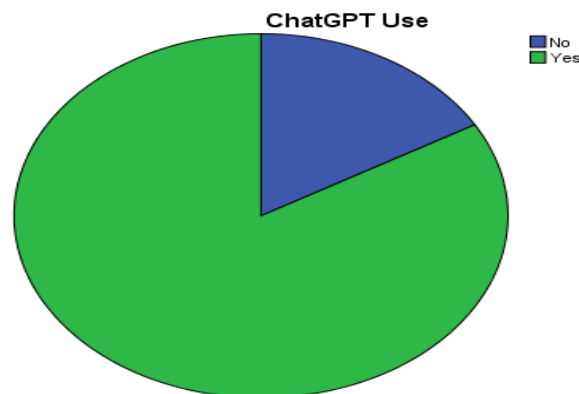
of statistical analysis selected is a descriptive analysis in the form of percentages and means, represented in tables and graphs. After the analysis of data, an interpretation of statistics helped to draw conclusions regarding Moroccan EFL teachers' perceptions of the role of ChatGPT in promoting EFL students autonomous learning in terms of benefits, challenges and strategies.

Results and discussion

The quantitative data analysis of the close-ended questionnaire revealed that the respondents $n= 60$, were equally distributed between males (50%) and females (50%). Besides, as it is clearly shown in the graph below, (41.7 %) of the respondents are EFL high-school teachers while (33.3%) are university teachers and another (15%) are EFL secondary school teachers.

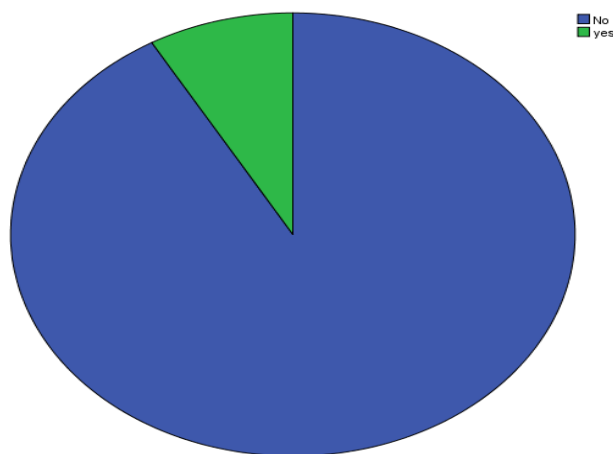


Graph 1: Moroccan EFL teachers' teaching institutions



Graph 2: Moroccan EFL teachers' use of ChatGPT

When asked about using ChatGPT, (85%) of the respondents confirmed their use of ChatGPT whereas (15%) said that they do not use it. Regardless of the recent launching of ChatGPT, it seems that most of the teachers who responded, already used and/or use ChatGPT. In other words, many Moroccan EFL teachers seem to keep up with the latest advancements and have some background information about ChatGPT use, the fact that may affect their perceptions and practices.



Graph 3: Professional training on ChatGPT use in EFL teaching and learning

The participants were asked a yes or no question about receiving training on how to use ChatGPT in EFL teaching and learning. Most of the teachers (91.7%) declared that they did not receive any training. Many of the previous researches on ChatGPT use in education pointed out to the lack of professional trainings on AI usage (Nguyen,2024; Bekou et al.,2024; Beege et al.,2024).

ChatGPT Advantages	N	Min	Max	Mean	Std. Deviation
1. Provide students with real time feedback	60	1	5	3,33	1,398
2. Allows students to adapt to different learning rhythms.	60	1	5	3,35	1,087
3. Enables students to access rich learning resources flexibly.	60	1	5	3,45	1,227
4. Provides learning resources adapted to different levels of difficulty.	60	1	5	3,50	1,308
5. Ensures that students have access to updated academic materials.	60	1	5	3,10	1,285
6. Provides learning resources from different languages and cultural backgrounds.	60	1	5	3,32	1,295
7. Helps students with self-assessment and goal-setting.	60	1	5	3,07	,954
8. Helps students to reflect on their own progress and learning.	60	1	5	2,88	1,209
9. Improves learning outcomes and motivation.	60	1	5	3,43	1,170
10. Helps students with their class schedules.	60	1	5	3,13	1,241
11. Increases student engagement in online classes.	60	1	5	3,13	1,200

SD=Strongly Disagree (1), D=Disagree (2), N=Neutral (3), A= agree (4), SA= strongly agree (5)

Table 2: Advantages of ChatGPT in promoting students’ autonomous learning

The five-point Likert scale is considered an interval scale. The mean is very significant. From 1 to 1.8, it means strongly disagree (SD). From 1.81 to 2.60, it means disagree (D). From 2.61 to 3.40, it means neutral (N). From 3.41 to 4.20, it means agree (A) and from 4.21 to 5, it means strongly agree (SA) (Pimentel, 2010). The majority of Respondents agree with three statements proposed. They believe that ChatGPT provides learning resources adapted to different levels of difficulty (M=3.50), it enables students to access rich learning resources flexibly (M= 3.45) and it improves learning outcomes and motivation (M=3.43). Nevertheless, teachers expressed

their neutrality towards all the other statements. Teachers agreed only with 3 out of 11 statements which means that most of the Moroccan EFL teachers who responded to the questionnaire do not see many positives in using ChatGPT to foster students' autonomous learning.

Ethical concerns and challenges	N	Min	Max	Mean	Std. Deviation
1. Large data	60	1	5	3,38	1,209
2. Lack of professional guidance from teachers.	60	1	5	3,62	1,223
3. Inaccurate assessment of student understanding.	60	1	5	3,52	1,127
4. Includes data bias and inappropriate content.	60	1	5	3,38	1,166
5. Generates incorrect /inaccurate information.	60	1	5	3,42	1,183
6. Generates harmful information such as racial discrimination	60	1	5	2,85	1,147
7. Triggers students' over-reliance	60	1	5	3,90	1,203
8. Can be Used in cheating	60	1	5	4,05	1,383
9. Limits the breadth of students' thinking	60	1	5	3,92	1,211
10. Reduces social interactions	60	1	5	3,40	1,330
11. Lack of interpersonal emotional experiences	60	1	5	3,63	1,301
Valid N (listwise)	60				

SD=Strongly Disagree (1), D=Disagree (2), N=Neutral (3), A= agree (4), SA= strongly agree (5)

Table3: Challenges of ChatGPT use for autonomous learning

As it is clearly represented in the table above, the majority of respondents agreed with 7 statements suggested. Teachers think that the main challenges of ChatGPT use in relation to autonomous learning are:

1. Generating incorrect or inaccurate information (M=3.42)
2. Inaccurate assessment of students' understanding (M= 3.52)
3. Lack of professional guidance from teachers (M=3.62)
4. Lack of interpersonal emotional experiences (M=3.63)
5. Students' over-reliance (M=3.90)
6. Limiting the breadth of students thinking (M=3.92)
7. Cheating (M=4.05)

Consequently, it seems that the majority of teachers expressed more negatives than positives towards the role of ChatGPT in promoting autonomous learning.

Strategies	N	Min	Max	Mean	Std. Deviation
1. Remove falsehoods	60	1	5	3,62	1,236
2. Educate students on proper usage	60	1	5	3,77	1,280
3. Encourage creativity	60	1	5	3,80	1,363
4. Train students on how to write prompts	60	1	5	3,67	1,422
5. Develop students' problem solving and critical thinking	60	1	5	3,67	1,469
6. Encourage students to Keep up with the latest advancement	60	1	5	3,85	1,338
7. Adapt assessment to focus critical thinking and problem solving	60	1	5	3,70	1,344
8. Communicate the consequence of academic dishonesty	60	1	5	3,57	1,382
9. Integrate experiential and project-based learning	60	1	5	3,67	1,271
10. Connect students with professionals in mentorship programs	60	1	5	3,68	1,214
11. Flip the classroom	60	1	5	3,45	1,213
Valid N (listwise)	60				

SD=Strongly Disagree (1), D=Disagree (2), N=Neutral (3), A= agree (4), SA= strongly agree (5)

Table4: Strategies to promote autonomous language learning through ChatGPT

The descriptive statistics presented in the table above demonstrate that all the teachers agreed with the strategies suggested. In other words, teachers believe it is important to raise students'

awareness to ethical issues in ChatGPT use, to provide professional guidance to students and to connect them with experts in the field.

Teachers should also think of implementing experiential, project-based learning and flipped classroom strategy. Additionally, students need to be encouraged to develop personal skills such as creativity, problem solving and critical thinking. Ultimately, Moroccan EFL teachers' role is highly significant to face the challenges of ChatGPT use and promote autonomous learning in EFL settings.

Discussion

The current survey aimed to identify Moroccan EFL teachers' perceptions about the role of ChatGPT in promoting EFL students' autonomous learning. The results are consistent with previous research findings on teachers' attitudes towards ChatGPT use in education (Kiryakova and Angelova, 2023; Ma,2023; Bekou et al., 2024; Mai et al. ,2024; Beege et al., 2024). Moroccan EFL teachers believe ChatGPT has the potential to develop students' autonomous learning but they expressed a number of concerns and challenges regarding its use. Eventually, they believe teachers should adopt a strategic approach to benefit the most from the affordances of ChatGPT as an AI tool.

The research findings revealed that Moroccan EFL teachers believe that ChatGPT can have a positive impact on developing students' autonomous learning by providing learners with learning materials adapted to different levels. In other words, ChatGPT can account for individual student's needs, interests, learning styles and goals and offer learners a personalized learning experience that helps them to fill individual knowledge gaps and reflect upon their learning process (Ma,2023; Dai et al.,2023).

In the same vein, teachers believe that ChatGPT allows learners to have access to rich learning resources flexibly since it can provide learners with authentic sources of materials (Bekou et al, 2024). The large data that ChatGPT offers to learners meets their various preferences and responds to their pursuit for up-to-date information resources. The diversity in the data presented also improves learners' communicative skills by being involved in an ongoing negotiation of meaning with different resources from various perspectives and backgrounds. Besides, according to Moroccan teachers, ChatGPT increases learners' motivation and improves their learning outcomes. This fact is the result of having more individualized and personalized learning, which leads to an increased motivation and more engagement on the part of learners, being considered as a fundamental educational support for the improvement of the teaching and learning process (Sanchez, 2023). Eventually, these opportunities offered by ChatGPT foster learners' autonomous learning and encourage them to use self-regulated strategies to monitor and adjust their learning to perform better academically. Yet, the results have clearly shown that Moroccan EFL teachers are still worried about the prominence of ChatGPT use in fostering autonomous learning.

Moroccan EFL teachers believe that there is a wide range of ethical concerns and challenges that hinder the efficiency of ChatGPT in developing students' autonomous learning. According to teachers, ChatGPT use is limited by generating incorrect information, lacking emotional interpersonal experiences, assessing students' understanding inaccurately, triggering students' over-reliance and limiting their breadth of thinking. Furthermore, the lack of professional guidance may lead students to use ChatGPT for unethical purposes.

In literature, many studies confirm similar risks of using ChatGPT in education and their negative impact on developing students' autonomous learning. ChatGPT use in educational contexts poses problems that blur the line between an AI's work and a human's original effort, providing avenues for plagiarism which raises issues of academic integrity. Consequently, students develop dependence on ChatGPT and restrain the employment of high-order thinking skills and self-regulated strategies. Moreover, there is a potential propagation of

misinformation which affects the trustworthiness of ChatGPT resources and generates issues of bias, discrimination and hallucinations in AI systems (Hui, 2023; Bernard, 2023; Belgas et al., 2023).

At the level of assessment, ChatGPT automated assessment is not able to assess students' progress accurately due to its lack of logical reasoning skills that are attributed to human experts like teachers and educators (Yang and Li, 2023). It is true that AI systems, particularly ChatGPT, opened new doors for teaching and learning, however, "AI is not yet ready to replace teachers, but is presenting the real possibility to augment them." (Popenici et Kerr, 2017). As a result, the role of teachers in AI use in education should be reconsidered in ways that guarantee an effective professional guidance to students and permit them to extend their human capabilities and skills for life-long learning.

Relatedly, most of the Moroccan EFL teachers who responded to the questionnaire believe there are different strategies they can adopt to foster autonomous learning through ChatGPT use. It is quite important for teachers to raise students' awareness to the proper usage of ChatGPT and communicate them the consequences of academic dishonesty. Students need to be conscious of all the possible ethical and legal implications of using generative AI chatbots and protect themselves from unethical practices.

Lately, with the increasing misuse of ChatGPT in terms of authorship rights, norms around citation and credit are emerging, for instance, the APA style guide created guidance for how to cite ChatGPT output as follows:

OpenAI. (2023). *ChatGPT* (Mar14version)[Large language model]. <https://chat.openai.com/chat>

Furthermore, OpenAI has introduced a tool capable of identifying content generated by ChatGPT that can be incorporated by teachers into their routines to maintain a cheat-free learning environment and that students should also know about (Hui, 2023). Hence, both students and teachers ought to keep up with latest AI advancements guides so as to remove any falsehoods and/or misuse.

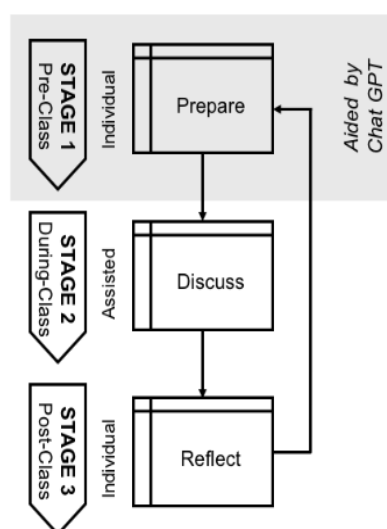
In addition to that, teachers believe it is necessary to develop students' soft skills such as creativity, critical thinking and problem solving so that they can face the drawbacks of ChatGPT use. As already stated, ChatGPT does not provide students with satisfying interactive emotional experiences, that is why there is an ultimate need to enhance students' personal and social skills through teachers' guidance, teamwork and interactive conversations where ChatGPT is utilized as an assistive tool for generating authentic resources (Ma, 2023). Similarly, Learner-based approaches to learner autonomy have always emphasized the importance of training students on the required metacognitive and personal skills to improve their autonomy (Daflizar, 2023). This also applies to assessment standards that should be revised to emphasize critical thinking and formative assessment (Bekou et al., 2024; Cotton et al., 2023).

Moroccan EFL teachers are also convinced of adopting more innovative teaching and learning methods to optimize the use of ChatGPT in education. They agreed with the incorporation of project-based learning to foster autonomous learning through ChatGPT. In literature, the benefits reported of ChatGPT use in project-based learning provide a favorable environment for autonomous learning development, as clearly presented in the table below:

Source	Integration of GPT Chat with Project Based-learning in learning (GPT Chat with Project Based-learning in learning)
(Widarbowo et al., 2023)	Helping Students with Personalized Learning
(Cotton et al., 2023)	Answering Student Questions Instantly
(Abbas et al., 2022)	Increasing Student Engagement
(Baskara, 2023)	Supporting Teachers in Managing Classes
(Tlili et al., 2023)	More Interactive Learning

Table 5: Benefits of ChatGPT integration in project-based learning (Purnama et al., 2023)

Flipped classroom is another innovative strategy that may be implemented in the classroom to invert the traditional model of teaching. It enables learners to gain necessary knowledge before class, and teachers guide students to actively and interactively apply their newfound knowledge during class. With the integration of ChatGPT in flipped learning, better opportunities are created for personalized and discovery learning, also, more authentic and various instructional resources are provided for students to work on. Nevertheless, the role of teachers is vital in guiding learners on how to use ChatGPT purposefully and meaningfully through a well-defined planning of learning stages, a proposed model of ChatGPT integration in flipped learning is described in the figure below:



**Figure 2: A Recommended path to integrate ChatGPT into flipped classroom
(Fuchs and Aguilos, 2023)**

According to the model proposed, during the preparatory stage students can be given tasks to do using ChatGPT following teachers' instructions, then the work is presented and discussed in class which allows students to reflect upon it in an interactive and participatory manner. Eventually, students' critical thinking and problems solving are encouraged and their use of self-regulatory strategies is developed. Adopting more modern teaching methods that rely on ChatGPT assistance cannot replace the multiple roles of teachers inside and outside the classroom. There is always a need for teachers' guidance on ChatGPT ethical usage, writing appropriate prompts, selecting trustworthy resources, assessing students' understanding and progress, offering emotional support and motivation and other roles that aid to bridge the gap between AI systems and language teaching and learning.

Implications and recommendations:

Consequently, to demystify the ambiguities around ChatGPT, Moroccan EFL teachers should benefit from the necessary trainings and workshops that facilitate its integration in language teaching and learning and maximize chances for students' autonomous learning development. On the other hand, teachers need to adopt innovative teaching and learning methods that provide a positive environment for more interaction and use of self-directed learning through ChatGPT use. Also, they should raise students' awareness to ethical concerns in ChatGPT use and provide the necessary guidance on prompt writing, protecting data privacy and selecting trustworthy resources. Finally, teachers have to focus on developing students' personal skills like critical thinking and problem solving and try to adapt assessment to serve this aim.

The present study has enabled to understand Moroccan EFL teachers' perceptions about the role of ChatGPT in promoting students' autonomous learning but it was limited in terms of the

number of respondents. Eventually, future researches should cover larger number of participants in order to generalize the findings, furthermore, mixed methods approaches can be employed to fill in the gap between teachers' perceptions and practices.

Conclusion

Based on the findings, Moroccan EFL teachers believe ChatGPT has the potential to enhance students' autonomous learning but it has a number of limitations that ought to be dealt with by teachers. Teachers' mixed feelings towards ChatGPT use in promoting students' autonomous language learning are legitimate due to many reasons. AI chatbots knew an unprecedented interest all over the world but the number of reported misuses and unethical issues raised decreases its promising performance. Besides, the risk of students' overreliance on these technological gadgets threatens the development of their required personal and academic skills and competences necessary for job integration. Hence, it limits their chances to enhance autonomous learning and realize better academic and professional achievements. In addition to that, teachers have not received any technical or pedagogical trainings on AI integration in EFL teaching and learning.

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