

The effect of ChatGPT on EFL students' social and emotional learning

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Abstract

Purpose – Chat Generative Pre-trained Transformer (ChatGPT) has become everyone's talk. It frightens many professionals, who worry about losing their jobs. ChatGPT may reconstruct some professions; some occupations may vanish while new ones may appear.

Design/methodology/approach – This mixed-methods study explores whether and how the use of ChatGPT impacts English is taught as a foreign language (EFL) students' social and emotional learning (SEL). The study used a questionnaire and collected perception data from 57 EFL students. A discussion with seven EFL professors was also formulated to triangulate the findings.

Findings – Results indicate that EFL students have high positive perceptions of using ChatGPT in their learning ($M = 3.87$). Results also showed that using ChatGPT has a moderate impact on EFL students' SEL ($R = 514$). This moderate effect was confirmed by the qualitative findings, which indicated that ChatGPT positively impacts EFL students' SEL by allowing them to practice conversation skills, aiding them in managing their emotional intelligence, providing them with feedback and reducing their anxiety. However, findings also indicated that ChatGPT reduces students' creativity and limits their emotional growth. Finally, the findings reported that for better use of ChatGPT, supervision is key.

Originality/value – This study recommends the use of ChatGPT in a way that helps students' creativity and emotional growth.

Keywords ChatGPT, EFL students, Effect, Emotional learning, Social learning

Paper type Research paper

Introduction

Due to how widespread artificial intelligence (AI) applications are and the range of services that they provide, professionals around the globe have been frightened that this “devil,” as described by Tili *et al.* (2023), may result in job loss. To relieve this horror, the Secretary-General of the United Nations in July, 2023, called an urgent meeting to determine the use of

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AI technology in our lives. Since the emergence of Chat Generative Pre-trained Transformer (ChatGPT), hundreds of studies have already been published focusing on the topic from different perspectives. Our focus in this study is on the use of ChatGPT in EFL learning and teaching, a topic which has been the focus of many studies (Bin-Hady *et al.*, 2023; Han *et al.*, 2023; Koraiishi, 2023; Liu and Ma, 2023; Mohamed, 2023; Yan, 2023). The previous studies on ChatGPT can be categorized in the use of ChatGPT in EFL informal learning (Liu and Ma, 2023), the application of ChatGPT in English language teaching (Mohamed, 2023), using ChatGPT in language assessment (Koraiishi, 2023), integrating ChatGPT in teaching writing (Han *et al.*, 2023; Yan, 2023), proposing a dimensional model of English language learning (Bin-Hady *et al.*, 2023) and the use of ChatGPT in motivating EFL learners (Ali *et al.*, 2023). As the learning process is perceived to be affected by self and social awareness and self and social management, there seems to be an important need for exploring the impact of ChatGPT on EFL social and emotional learning (SEL).

Teachers perceive SEL positively in schools (Bai *et al.*, 2021). Language instructors can integrate SEL into any classroom-based approach (Huda *et al.*, 2022). Previous studies on SEL took various dimensions. Some studies focused on integrating SEL to teach the four language skills (Bai *et al.*, 2021), while others aimed at proposing a SEL model (Suganda *et al.*, 2018). SEL has not been sufficiently explored in contexts where English is taught as a foreign language (EFL) (Bai *et al.*, 2021). Therefore, this study connects ChatGPT as an independent variable with SEL as a dependent variable. Findings of this investigation open new horizons regarding the combination of AI bots with the psychology of students learning. This study explores the following:

- (1) Do EFL students have positive perceptions of ChatGPT use in their language learning?
- (2) To what extent does ChatGPT have an effect on the dimensions of SEL?

Literature review

EFL AI-based teaching

English language teaching witness a fabulous change due to the widespread of technology (Zhang, 2022). The improvement begins with the leverage of technology in the learning/teaching process. Learning technologies provide various opportunities for students and teachers to obtain during the learning teaching process (Bin-Hady and Ali, 2024; Bin-Hady and Al-Tamimi, 2021; Moqbel and Rao, 2013). Furthermore, the emergence of AI helps teachers and students to push the learning process forwards. AI-based applications have been developed for language teaching in general and, in particular for teaching EFL classrooms. However, not all students and stakeholders perceive AI-based learning positively. One way to understand whether AI could be harmful or beneficial to EFL teaching and learning is to examine the perceptions of teachers and learners (Kim *et al.*, 2021). Professionals within the field of language learning have predicted that chatbots would provide new opportunities for the teaching and learning of languages. Despite the assumed benefits of utilizing chatbots in language classrooms, such as providing opportunities for interaction or helping to create an anxiety-free environment, little is known about learners' actual use of chatbots during language classes or how chatbots affect their motivation to learn a language (Jeon, 2024). This study tries to provide a current view of EFL students' perception on the role of chatbot in their English language learning and its impact on their SEL.

Chatbot technology has various types and can be applied for different functions. Large language models (LLMs) are one such example (Afjal, 2023; Jeon *et al.*, 2023). Similar to Computer-assisted language learning (CALL), or Mobile-assisted language learning (MALL), the term artificial intelligence-assisted language learning (AIALL) was introduced (Nong

et al., 2021; Bin-Hady *et al.*, 2023). ChatGPT is an AI-powered chatbot where language instructors use it for various purposes and functions in language learning. It induces the meaning of words in context, creates various text types and corrects mistakes in language (Kohnke *et al.*, 2023). These LLMs, which ChatGPT is descended from, are trained on various text types and produce human-like conversation in answering questions and interacting with any task where language is used (Kasneji *et al.*, 2023). LLMs are deep learning models which understand and generate natural language (Shen *et al.*, 2023). Many applications of LLMs are in the literature; what is important to us is the use of LLMs in language teaching and learning.

ChatGPT. Previous research bridged several gaps in ChatGPT use, especially in the educational and language-learning contexts. Several studies tried to produce a model of AI-power language learning (Bin-Hady *et al.*, 2023; Liu and Ma, 2023; Nong *et al.*, 2021). Bin-Hady *et al.* (2023) produced a penta-dimensional AIALL model for language learning. The model emphasizes the importance of a flexible teacher's role in promoting learner autonomy, creating an enjoyable learning experience, encouraging future innovation and recognizing diverse applications. Furthermore, Nong *et al.* (2021) reported that the AIALL model has the potential to enhance primary school students' English proficiency and overall learning ability. Liu and Ma (2023) also presented empirical evidence that highlights the effectiveness of ChatGPT as a language-learning tool for EFL learners. They strongly recommend EFL learners leverage this tool to actively and creatively engage in the ecological CALL. However, the positive effect that such studies reported resulted from using ChatGPT. Other studies (e.g. Chaka, 2023) reported negative perspectives that AI bots plagiarized information without giving credit to authors; they also produced shallow responses to given questions.

Some of the previous research has focused on using ChatGPT for language learning. Jeon *et al.* (2023) reviewed 37 studies on ChatGPT to get a clear idea about how such chatbots assist students' language learning. Kohnke *et al.* (2023) investigated the harnessing of ChatGPT in language learning and teaching as well as the competencies required for optimal use of such a chatbot. Furthermore, Bin-Hady *et al.* (2023) proposed a model for ChatGPT use in students' English language learning. However, the importance of such studies, their focused was oriented on ChatGPT use in the teaching/learning process. Additionally, Agustini (2023) gauged the impact of ChatGPT on students' autonomy. With Agustini's (2023) study in mind, an urgent question arises: is there an effect of ChatGPT on EFL students' SEL. And is such an effect positive or negative? This query is the center of this study. In the following section, students' SEL will be discussed.

Social and emotional learning. SEL refers to the acquisition and application of skills that enable individuals of all ages to recognize and regulate their emotions, set and achieve positive objectives, understand different viewpoints, cultivate supportive relationships, make responsible choices and effectively navigate personal and interpersonal situations (Osher *et al.*, 2016). Students must develop competencies for SEL; these competencies are divided into four categories, which include 17 skills and attitudes. These groups are centered on developing self-awareness and awareness of others, cultivating positive values and attitudes, making responsible decisions and enhancing social interaction skills (Payton *et al.*, 2000).

SEL has attracted attention in fields other than English as foreign language (Bai *et al.*, 2021). Bai *et al.* (2021) pinpointed the competency level of EFL students at Hong Kong secondary schools regarding SEL. The study also calculated the correlation between the four SEL components and students' achievement. Results revealed a medium competency level. The study also reported a gap between students' high awareness level and medium awareness level. Likewise, Suganda *et al.* (2018) designed a creative model for developing EFL Indonesian competence in SEL. The creative social emotional learning English (CSELE) model, included stating the learning objectives and analyzing needs, classroom strategy and assessment. The CSELE model integrates teaching material from the Indonesian curriculum.

It also integrates creative teaching which is based on self and social awareness, relationship skills and decision-making responsibility. Findings reported that the CSELE model positively impacted the Indonesian SEL, classroom environment and academic motivation. [Suganda et al. \(2021\)](#) explored the impact of EFL Indonesian teachers code-switching as a classroom strategy in building teachers' and students' social and emotional abilities. Several tools were used to collect data including questionnaires, observations and interviews. Findings indicated that code-switching plays a major role in teaching various SEL-based activities in the Indonesian context. Findings also showed that code-switching builds social skills in students and teachers. These three studies were conducted in China and Indonesia. Yet, in Yemen, there seems a necessity to fill such a gap. Furthermore, [Bai et al. \(2021\)](#) recruited secondary school students. [Suganda et al. \(2021\)](#) studied the effect of code switch in building SEL. The current research deals with Yemeni EFL tertiary students.

While the studies reported in this review discuss ChatGPT (e.g. [Agustini, 2023](#); [Chaka, 2023](#)) and students' SEL (e.g. [Payton et al., 2000](#); [Suganda et al., 2018](#); [Suganda et al., 2021](#)), no study explored the influence of ChatGPT on students' SEL. No previous study showed there is an influence of ChatGPT on EFL students' SEL or not and whether the influence is negative or positive. These queries are the core of the present study.

Methods

Research design

This study used mixed methods research. It quantitatively explored the perceptions of EFL students in several countries on using ChatGPT in language learning. It also qualitatively studied the effects of ChatGPT on students' self and social awareness and self and social management. The study collected data using a questionnaire and discussion from participants in various settings.

Participants

The study collected data from 57 EFL undergraduate students in various settings, [Table 1](#). Students at the beginning were asked if they used ChatGPT in their English language learning. If yes, they continue responding to the questionnaire items. If not, they stop. All students were studying English as a foreign language. They belonged to various contexts with different exposure to English language use and technology access. The sample had different language-learning background and different first languages. They also belong to different cultures. The majority are Asian, some are African and just one is South American. [Table 1](#) shows that the participants were from 16 countries. Most are from Indonesia (N = 24), Jordan (N = 7), Pakistan (N = 6), Libya (N = 4), Saudi Arabia (N = 3) and Iraq (N = 2). Other

Country	Count	Column N %	Country	Count	Column N %
Indonesia	25	43.1	Togo	1	1.7
Jordan	7	12.1	Yemen	1	1.7
Libya	4	6.9	Kenya	1	1.7
Saudi Arabia	3	5.2	Trinidad and Tobago	1	1.7
Iraq	2	3.4	India	1	1.7
Pakistan	6	10.3	Iran	1	1.7
Egypt	1	1.7	Tunisia	1	1.7
Palestine	1	1.7	Total	57	100.0
Gender	Female	38	66.7		
	Male	19	33.3		
	Total	57	100.0		

Table 1.
Sample nationality and gender

Source(s): Authors' own work

individuals belonged to other countries like Egypt, Palestine, Togo, Yemen, Kenya, Trinidad and Tobago, India, Iran and Tunisia. Table 1 also indicates that participants included both females (N = 38, 66.7%) and males (N = 19, 33.3%).

Seven professors also participated in ResearchGate discussion. ResearchGate is a platform for scientists and scholars. It combines millions of researchers from the entire world. The researchers selected ResearchGate due to its reliability as many experts in the field of EFL and technology-based learning are available there. Furthermore, those interested researchers can respond willingly in which the researchers avoid discomfort to direct contact with researchers. They belonged to India, Yemen, Saudi Arabia, Iraq, Algeria, Egypt and France. They are professors at universities measured with Teaching English to Speakers of Other Languages (TESOL) and Applied Linguistics.

Instruments

A questionnaire was designed which constructs three parts. The questionnaire is close-ended in line with previous studies' findings. The questionnaire consists of 32 items. The first part aims to measure the participants' perception of using ChatGPT in English language learning. This constitutes 8 items. The first part of the questionnaire has been prepared by the researchers, using previous studies' findings (Bin-Hady *et al.*, 2023; Mohamed, 2023) (see Table 3). The second part is adopted from Bai *et al.* (2021). It focused on probing students' EFL under four subcategories which are self and social awareness and self and social managements. Self-awareness included 5 items and social awareness included 7 items. Self-management consisted of 7 items whereas social management had 5 items (Appendix). The questionnaire was submitted for validation to 3 referees specialized in English language teaching. However, the second part is already validated as it had been used by Bai *et al.* (2021). The questionnaire was also piloted on 10 students to check its reliability before the final administration. The reliability of the questionnaire was measured using Alpha. Table 2 shows the average Alpha score which reached high level (0.911). Similarly, the individual dimensions of the questionnaire were measured; they scored high ranged from 0.801 into 0.907.

This study opened a discussion on ResearchGate to get opinions from specialists in the field. The discussion question was posted on August 23 and continues till September 23. The discussion question stated, "How does ChatGPT impact EFL students' social and emotional learning?" The post was read by 271 users and answered by 7 users.

Data analysis

This study used SPSS (23rd version) process the data. It obtained descriptive analysis including extracting the mean scores and standard deviation. It also applied Cronbach Alpha to check the reliability of the questionnaire. It also used linear regression to measure the effects of the independent variable (ChatGPT) on students' SEL (dependent variable). Thematic analysis was obtained to analyze the responses of the professors.

Dimensions	N of items	Cronbach's alpha
ChatGPT	8	0.801
Individual awareness	5	0.823
Social awareness	7	0.841
Individual management	7	0.907
Social management	5	0.811
Average	32	0.911

Source(s): Authors' own work

Table 2.
Reliability of the
questionnaire items

Table 3.
EFL students'
perception on using
ChatGPT in their
language learning

Statements	N	Mean	Std. Deviation
1. I use ChatGPT to improve my English language skills in conversational practice	57	3.79	1.047
2. ChatGPT provides personalized language instruction	57	3.93	0.798
3. ChatGPT adapts each learner's level and pace to improve the learning experience	57	3.63	0.899
4. ChatGPT exposes me to a wide range of language use which enhances my language proficiency	57	3.93	0.798
5. ChatGPT is a highly accessible language-learning option for EFL learners of all levels	57	4.04	0.865
6. ChatGPT is a cost-effective language-learning option for EFL learners of all levels	57	3.86	0.766
7. ChatGPT provides me with feedback	57	3.95	0.933
8. ChatGPT can effectively ignite my creativity	57	3.81	0.971
<i>Average</i>	57	3.87	0.575

Source(s): Authors' own work

The qualitative data were analyzed according to [Braun and Clarke \(2006\)](#). The analysis of qualitative data involves some stages starting familiarizing oneself with the data, then generating codes to identify key concepts, followed by developing broader themes from the codes. The themes are reviewed to ensure they accurately reflect the data, and then they are defined and named. Finally, exemplar cases are located to illustrate the identified themes. The collected data comprised a corpus of 1,500 words. The researcher read and reread the raw data. Three themes emerged which are the positive impact of ChatGPT on EFL students' SEL, the negative impact of ChatGPT on EFL students' SEL a neutral impact of ChatGPT on EFL students' SEL. The first theme comprises five codes with 7 initial responses, the second theme includes two codes with 6 responses and finally, the third theme incorporates three codes with 4 responses. The researchers reread each of the responses many times, at different moments to check that no code was omitted. To check the validity of the analysis, the researchers themselves reworked the categories after two weeks. Slight modifications were added to the first analysis, [Table 5](#).

Results and discussion

RQ1. Do EFL students have positive perception on using ChatGPT in their language learning?

[Table 3](#) indicates that the EFL learners have a high positive perspective, $M = 3.87$ and $Std = 0.575$ on the use of ChatGPT in their language learning. The responses ranged between $M = 4.04$ as the highest mean score and $M = 3.63$, as the low mean score. This finding showed the high awareness of students toward using technologies in their learning. This finding partially agreed with [Aljabr \(2023\)](#) who reported that Saudi EFL students are highly aware of the important of AI bot in their learning. [Aljabr's \(2023\)](#) study revealed that student moderately use ChatGPT in their learning. The finding also agreed with [Ajlouni et al. \(2023\)](#) who reported that Jordanian EFL students adopted a high attitude toward using ChatGPT as a learning tool.

RQ2. To what extent does ChatGPT have an effect on EFL students' SEL? And How?

Table 4 displays the students' perception of the effect of using ChatGPT on their SEL. Table 4 shows that students revealed a total high perception, $M = 3.86$, $Std = 0.65$ on the impact of ChatGPT on their SEL. Regarding the individual dimensions of SEL, students reported high perception starting from 3.69 with social management, then social awareness with a Mean score of 3.89. Similarly, the students perceive ChatGPT high with 3.94 for individual awareness and 3.95 for individual management. The standard deviations, which indicate the spread or variability in the data, are all relatively low, ranging from 0.592 to 0.692, suggesting the data are quite homogeneous. To measure the impact of ChatGPT on students' SEL, Table 5 displays the results.

Results in Table 5 indicate a statistically significant positive effect of using ChatGPT on improving the SEL of English language students. The regression coefficient value was 0.432, with the calculated T-value of 4.448 indicated the significance of the regression coefficient, with a probability value of 0.000. This affirms that for every unit increase in the use of ChatGPT, there was a 43.2% increase in the improvement of the SEL of English language students. Furthermore, the correlation is moderate and positive as the value was 0.514. This means that as the use of ChatGPT increased, the improvement in students' SEL also increased and vice versa. The explanatory regression model, as represented by the coefficient of determination ($R^2 = 0.265$), indicating that 26.5% of the changes in the improvement of students' SEL was due to the application of the use of ChatGPT alone (with the other factors remaining constant), while 73.5% of the changes were due to other factors. The calculated F-test, which had a value of 19.783, indicated that the regression model is statistically significant, with a probability value of 0.000.

To triangulate the quantitative results, a thematic analysis of the discussion responses was reported in Table 6.

Positive impact

Based on the responses provided, ChatGPT has the potential to positively impact EFL students' SEL. ChatGPT helps students to practice communication skills (evident in 4 responses). Participant 6 indicates "ChatGPT can facilitate collaboration among EFL

Dimensions	N	Mean	Std. Deviation
Social awareness	57	3.89	0.692
Individual awareness	57	3.94	0.647
Individual management	57	3.95	0.592
Social management	57	3.69	0.684
Valid N (listwise)	57	3.86	0.65

Table 4.
EFL students' perception on the impact of using ChatGPT on their language learning

Source(s): Authors' own work

Model	Unstandardized coefficients		Standardized coefficients		t	Sig	R	R^2	F	Sig
	B	Std. Error	Beta							
Constant	2.202	0.380	0.514		5.801	0.000	0.514 ^a	0.265	19.783	0.000 ^b
ChatGPT	0.432	0.097			4.448	0.000				

Note(s): a = Predictors (Constant); b = Dependent variable

Source(s): Authors' own work

Table 5.
The effect of ChatGPT on EFL students' social and emotional learning

Table 6.
The qualitative findings reported three points of views

Question	Descriptive category	Sub-category [number of responses endorsing each sub-category]
The impact of ChatGPT on EFL students' SEL	1. Positive impact of ChatGPT on EFL students' SEL	1. ChatGPT can help EFL students practice their communication skills [4] 2. ChatGPT can teach EFL students how to identify and manage their own emotions more effectively [2] 3. ChatGPT can offer tailored feedback and support to individual EFL students [2] 4. ChatGPT can provide EFL students with insights into different cultures and perspectives [1] 5. Using Chatbots has potential to reduce L2 performance anxiety [1]
	2. Negative impact of ChatGPT on EFL students' SEL	1. ChatGPT reduces users' creativity and emotional intelligence [3] 2. ChatGPT hinders students' emotional growth and cultural comprehension [3]
	3. Neutral impact of ChatGPT on EFL students' SEL	1. ChatGPT should be used in balanced with human interaction [1] 2. ChatGPT may help no doubt but it could also lead to the laziness of students [1] 3. AI should be used under supervision [2]
Source(s): Authors' own work		

students, encourage them to work together on language-learning tasks and projects. This can promote social skills like teamwork, negotiation, and conflict resolution, which are vital for success in both personal and professional contexts". ChatGPT also aids EFL students to manage their emotion (this is evident in 2 responses). Participant 1 affirms, "ChatGPT helps EFL students develop their emotional intelligence by enhancing their self-awareness, self-regulation, and empathy skills". It can also provide tailored feedback (evident in 2 responses). Participant 2 says, "ChatGPT can positively impact EFL students' language practice by offering a non-judgmental environment, immediate feedback, and practice opportunities". Furthermore, ChatGPT has the potential to empower EFL students with cultural understanding (evident in 1 response). Participants 4 opines, "ChatGPT can provide EFL students with insights into different cultures and perspectives, enabling them to better understand and appreciate diverse backgrounds and viewpoints". Finally, this bot participates in reducing EFL students' L2 performance anxiety (evident in 1 response). Participant 7 views, "Using Chatbots has potential to reduce L2 performance anxiety. It seems that learners are less stressed when talking to a Chatbot than a real human". These findings are confirmed by [Liu and Ma \(2023\)](#) who highlighted the effectiveness of ChatGPT as a language-learning tool for EFL learners. They strongly recommend EFL learners make use of ChatGPT to develop their language skills in innovative ways.

Negative effect

The second viewpoint displays that ChatGPT has a negative impact on EFL students' SEL. One of the negative sides of ChatGPT is that it reduces users' creativity and emotional intelligence. This is evident in 3 responses. Participant 5 says, "to my knowledge, students or other users cannot rely on using ChatGPT because it does not help develop critical thinking and emotional learning". Participant 4 confirms, "ChatGPT reduces users' creativity and limits their abilities and emotional intelligence". The second defect that EFL students get while using ChatGPT is that ChatGPT hinders students' emotional growth and cultural comprehension (which is evident

in 3 responses). Participant 2 argues, “ChatGPT might lack emotional understanding, context, and genuine human connection, potentially hindering emotional growth and cultural comprehension. Participant 3 reports, “ChatGPT would minimize aspects of social and emotional learning.” ChatGPT has more towards personal interaction rather than social learning. It negatively affects emotional learning, too”. These findings are in line with [Chaka \(2023\)](#) who reported that AI bots plagiarized information without giving credit to the authors; they also produced shallow responses to given questions.

Neutral effect

As we have displayed, various stakeholders consider that ChatGPT has a positive, negative or mixed impact on EFL students’ SEL. Therefore, achieving a balance between the utilization of AI technologies and human interaction is crucial (this is evident in 1 response). Participant 1 says, “it is important to balance the use of AI technologies with human interaction to ensure that students have meaningful social interactions and emotional connections with their peers and teachers”. Another neutral view is that ChatGPT may help no doubt but it could also lead to the laziness (which is evident in one response). Participant 4 mentions, “over-reliance on ChatGPT may lead to the laziness of students and limit critical thinking and emotional growth”. Therefore, the best solution is that AI should be used under supervision. This is evident in 2 responses. Participant 5 reports, “ChatGPT will improve emotional learning, contexts, and cultural understanding if used effectively and under control”. Participant 3 confirms, “ChatGPT can be used as an appropriate AI tool to enhance education if used correctly and controlled by providing relevant information, answering questions, and solving problems”. These findings are supported by [Taecharungroj \(2023\)](#) who revealed that ChatGPT has positive and negative impacts on users. Similarly, [Bitzenbauer \(2023\)](#) affirmed that although ChatGPT has the potential to improve learning outcomes and assist teachers, it is crucial to use it cautiously to address any defects and biases.

These findings have implications on the field of AIALL, policy makers as well as teaching English as a foreign/second language. Beginning with the proponents of AIALL, it is important to shed produce a theoretical model for the use of ChatGPT in a way that collaborates students’ learning not to hinder them and makes them bot-dependent. Furthermore, for policy makers especially in the field of course design, they are recommended to produce ChatGPT as a user friendly in the curriculum. They are suggested to add ChatGPT in the University course prescriptions to assertion the understanding of the work of such bots to all students in all departments. Amongst the content they offer, they are suggested to show some positive ways of using ChatGPT and some others in which ChatGPT should not be used. Amongst the implications are for teachers and students in the field of English language learning and teaching, teachers should introduce ChatGPT as a teaching stagey as well as evaluation strategy for students. EFL teachers should make their students acquaintance how to use of AI tools in the learning process. Furthermore, students may be warned that they are not allowed to use AI in producing their written tasks or preparing their presentation because such AI tools cannot produce the task as human do. Such tools are observed to have great benefits ([Sullivan et al., 2023](#)). Users need to acquire competencies for using such AI tools ([Kasneji et al., 2023](#)). Furthermore, as the study reports, ChatGPT may have some negative consequences; therefore, EFL teachers should prevent students from interacting with such bots all the time. Teachers should make time for students to respond, interact and solve the learning activities themselves under the teacher’s observation.

Conclusion

This study focused on the effect of using ChatGPT on EFL students’ SEL. Students strongly perceive on a positive impact of ChatGPT in their English language learning. The study

reported medium effects of this chatbot on EFL students' SEL. The effect is found in 3 forms: positive, negative and neutral. The positive impact was induced and stemmed from ChatGPT participating in boosting EFL students' communication skills, aiding them to manage their emotion effectively, providing them with feedback, acquainting them with different cultures and reducing students' anxiety. These advantages are more likely providing students with a rich environment for language practice and aiding them with whatever they need socially, emotionally and academically. Findings also showed some warning that ChatGPT may affect students by reducing creativity and hindering their emotional growth. These negatives should be prevented; EFL teachers as well as students at higher levels, should try to stop using ChatGPT in areas which would affect their emotional learning and creativity. Finally, the study highlighted a need to make use of ChatGPT under the supervision of teachers.

However, the important result of this study is that no research is complete. This study has some limitations; it just reflects the perceptions of EFL students who have already used ChatGPT. Moreover, the sample is constructed from participants in ten countries. Furthermore, as reported previously, this study reported the perceptions. Empirical studies are needed to check the real use of ChatGPT by students in certain contexts and the impact of AI bots on students' SEL. Therefore, these findings cannot be generalized. This study recommends further research to explore some solutions for the negative impacts that ChatGPT may have on students' learning.

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Further reading

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	Statements	Mean	Std. Deviation
ChatGPT	These items are displayed in Table 3		
Individual awareness	1. I am aware of what I am feeling (e.g. happy, anxious and bored) in English learning	3.7368	0.97333
	2. I know what I do or do not well in English learning	3.9825	0.83434
	3. I know what I want to achieve in English learning and how to achieve it	3.8772	0.82527
	4. I am aware of the importance of a positive attitude towards English learning	3.9298	0.79865
	5. I am aware that successful English learning depends on myself	4.1754	0.78200
Social awareness	1. I think that my classmates and I should help each other in English learning	4.1228	0.88782
	2. I know whom (e.g. siblings, parents, classmates and teachers) I can seek help from in English learning	3.6964	1.09411
	3. I know what family resources (e.g. private tutoring, buying books and English programs) I have in English learning	3.8772	1.05340
	4. I know what school resources (e.g. school library, English clubs and overseas exchange programs) I have in English learning	3.7857	0.96699
	5. I think that English learning can be better facilitated through group activities	3.9825	0.79037
	6. I know that my classmates' success stories in English learning can provide me with new insights into my own English learning	3.8772	0.94624
	7. I am aware that my contribution to group activities in English learning is important	3.9286	0.93141
Individual management	1. I can manage my emotions (e.g. happiness, anxiety and boredom) in English learning	3.8246	0.80451
	2. I can solve my problems in English learning	3.9123	0.76253
	3. I can find effective ways to learn English	4.0175	0.66792
	4. I can set and achieve goals in English learning	4.0175	0.69414
	5. I can stay focused on my English learning	3.9298	0.79865
	6. I can keep a positive attitude towards English learning	3.9818	0.80487
	7. I can cope with challenges in English learning	3.9821	0.64642
Social management	1. My classmates and I help each other in English learning	3.7193	0.75010
	2. My classmates and I engage in collaborative activities in English learning	3.6140	0.90147
	3. I have discussions on English learning with my classmates	3.6842	0.86928
	4. I seek suggestions from other people (e.g. siblings, parents, classmates and teachers) in English learning	3.6491	1.02628
	5. I try to find out why some classmates have learned English well	3.7895	0.95874

Source(s): Authors' own work

Table A1.