

# The Impact of ChatGPT on EFL Medical Track Students' Affective Filter

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**Abstract**—This study examines the impact of ChatGPT on reducing the affective filter and enhancing speaking proficiency among EFL medical track students. An experimental group of 18 students participated in speaking practice facilitated by artificial intelligence (AI) tools using ChatGPT. Specifically, the influence of ChatGPT was evaluated on motivation, self-esteem, and anxiety levels among English as a foreign language (EFL) learners. A mixed-methods approach was employed, combining quantitative and qualitative data collection through pre-posttests on speaking proficiency, as well as interviews. Results indicate a significant positive shift in students' anxiety levels post-intervention, along with improvements in speaking performance and reduced affective filter. ChatGPT's role in providing personalized feedback, simulated conversations, and a supportive learning environment is highlighted as an asset in language learning and emotional barrier mitigation. Further exploration into the long-term effects of AI technology in language learning is recommended to enhance teaching practices and create inclusive learning environments.

**Index Terms**—ChatGPT, speaking proficiency, affective filter

## I. INTRODUCTION

Scholars have shown significant interest in the implementation of artificial intelligence (AI) tools in higher education, specifically in the context of EFL learning and teaching. According to Abdalgane and Othman (2023), the integration of AI technologies has great potential to improve EFL education by enabling pedagogical advancements through innovative frameworks. The use of Chat Generative Pre-Trained Transformer (ChatGPT) has become a significant trend in EFL instruction since 2022. Scholars like Hong (2023) and Huallpa (2023) have highlighted its transformative effect on traditional teaching methods.

Simultaneously, Krashen (2013) explains the affective filter hypothesis, which emphasizes the impact of students' emotional states on their ability to learn a language in EFL settings. It is suggested that emotions like anxiety, low self-esteem, and frustration can create obstacles that hinder the process of language acquisition, thus impeding the development of students' proficiency. Du (2009) provides a more detailed explanation of the connection between emotional factors and language input, emphasizing the crucial influence of motivation and comfort on facilitating successful language acquisition processes.

The study examines the impact of ChatGPT on students' motivation, self-esteem, and anxiety levels during EFL learning tasks by using AI-driven language practice to reduce the students' affective filter. Focus is on investigating the impact of ChatGPT on motivation levels, self-esteem, and anxiety reduction among EFL medical track students. It highlights the significance of AI technologies in promoting favorable learning experiences and outcomes.

## II. LITERATURE REVIEW

This review examines the role of affective filter in the language classroom and the capacity of ChatGPT to reduce emotional barriers in EFL learning settings, with particular emphasis on motivation, self-esteem, and anxiety. Affective

filter, as proposed by Krashen (1982), refers to emotional conditions that can hinder the process of acquiring a language. By reducing this filter, learners become more open to receiving language input.

#### A. *The Multifaceted Nature of Affective Filter in Language Learning*

Affective filter, a theoretical construct impacting language learning, is influenced by a complex interplay of factors within the learning environment and individual learner characteristics.

##### (a). *Classroom Dynamics*

Traditional classroom settings present a complex interplay of factors influencing student learning. On one hand, larger class sizes and the potential for negative peer evaluation can create a breeding ground for anxiety. Biria et al. (2013) found a direct correlation between increased class size and heightened student anxiety, impacting academic performance. Similarly, Botes et al. (2020) explored the concept of EFL anxiety, highlighting how fear of peer judgment can hinder language acquisition in classroom settings. However, the impact of these anxieties can be significantly mitigated by a supportive teacher who fosters a safe learning environment. Research by Böttger and Költzsch (2020) suggests that a teacher's ability to create a positive classroom climate can significantly reduce the affective filter. This aligns with broader educational theories that emphasize the importance of social-emotional learning (SEL) in fostering a positive learning environment (CASEL, 2023). By promoting a sense of belonging, collaboration, and respect, teachers can create a classroom dynamic where students feel comfortable taking risks, asking questions, and participating actively, ultimately leading to improved learning outcomes.

##### (b). *Individual Differences and Cultural Background*

Beyond the learning environment, individual learner traits significantly influence the affective filter. Learners with higher general anxiety or shyness are more prone to a stronger affective filter (Mohebbi et al., 2016). Furthermore, self-perceived proficiency and perceived communicative competence play a crucial role (Tai, 2024). Understanding these individual differences allows educators to tailor instruction and support mechanisms. Language proficiency and self-efficacy, the belief in one's capabilities, are also intertwined with the affective filter. Learners with lower self-efficacy or who doubt their language skills tend to experience heightened anxiety (Mohammed, 2023). Thus, instructors should provide opportunities for students to gradually build proficiency and confidence through practice and positive feedback.

Cultural background is another important consideration. Learners from collectivist cultures, which prioritize group harmony, may experience a stronger affective filter compared to those from individualistic cultures, where assertiveness is more common (Wan, 2017). Additionally, learners from linguistic backgrounds with substantial differences from the target language, such as tonal languages learning English, may face increased anxiety due to pronunciation challenges (Arnold, 1999). Recognizing these cultural factors is essential for providing culturally sensitive support and interventions to address the affective filter (Wang, 2017).

By acknowledging these various factors and their influence on the affective filter, educators can develop more supportive learning environments that cater to individual needs and cultural backgrounds. This ultimately enhances the language learning experience for all students.

#### B. *The Affective Filter and ChatGPT in Speaking Classrooms*

Language learning success hinges not just on mastering language skills, but also on overcoming psychological barriers. Studies suggest ChatGPT can be a motivational tool, promoting task enjoyment, fostering interactive learning, and offering personalized feedback (Ali et al., 2023; Hmoud et al., 2023; Siregar et al., 2023). However, the impact on self-esteem is multifaceted. While prompt feedback and a sense of accomplishment can be beneficial (Parsakia, 2023), overreliance can hinder social communication skills (Parsakia, 2023). Similarly, the influence on anxiety remains unclear. Some studies report reduced anxiety through AI interaction (Pham, 2023), while others highlight the potential for negative experiences to exacerbate anxiety (Çakmak, 2022; El Shazly, 2021).

##### (a). *Motivation and ChatGPT*

Studies indicate a direct relationship between motivation and the achievement of language learning goals (Ai et al., 2021). Research conducted by Kim (2019) on communication with chatbots revealed a notable rise in motivation and interest in language. Nevertheless, this study utilized Replika, a chatbot that prioritizes personal interaction and emotional assistance, in contrast to ChatGPT's primary focus on generating language and providing feedback. According to Ali et al. (2023), students viewed ChatGPT as a motivating tool and recommended its inclusion in EFL programs. Siregar et al. (2023) provided additional support for this idea, demonstrating a notable and beneficial effect on student motivation following the utilization of ChatGPT. Hmoud et al. (2023) discovered five primary motivational factors that are affected by ChatGPT: task enjoyment, reported effort, result assessment, perceived relevance, and interaction. The results indicate that ChatGPT has the potential to improve student motivation by offering personalized feedback, facilitating interactive learning, and providing assessments.

##### (b). *Self-Esteem and ChatGPT*

Self-esteem is a crucial factor in achieving success in language learning, especially in speaking skills (Rubio, 2007). Phuangsuwan et al. (2023) established a correlation between academic performance and self-esteem, indicating that higher

performance is associated with enhanced self-perception. Parsakia (2023) emphasized the beneficial influence of chatbots on self-esteem by providing prompt feedback, tailored assistance, and a feeling of accomplishment. Nevertheless, the study also warned about excessive reliance, which could result in social communication difficulties. Zhuo et al. (2023) highlighted the dual nature of technology's impact, stating that positive user experiences with ChatGPT can enhance self-esteem, while negative experiences undermine it.

### (c). *Anxiety and ChatGPT*

Anxiety is a major emotional barrier hampering language learning (Gómez et al., 2023). Studies investigating the impact of chatbots on anxiety reduction have produced inconclusive findings. El Shazly (2021) and Çakmak (2022) found that chatbot interaction did not lead to a significant reduction in speaking anxiety. They attributed this to challenges in comprehension and negative user attitudes. In contrast, Pham (2023) discovered that engaging with AI tools alleviated anxiety through the provision of information, generation of ideas, and delivery of clear explanations. Moreover, research conducted by Kim (2019), and Han (2020) utilizing diverse AI tools showed a reduction in anxiety and a boost in self-assurance during verbal communication.

This review has elucidated the intricate interplay of factors shaping the affective filter in language learning environments. Classroom dynamics, individual differences, and cultural backgrounds all contribute significantly to the modulation of learners' emotional states and, consequently, their language learning journey. Understanding and addressing these factors enables educators to create supportive and inclusive learning environments tailored to individual needs, ultimately enriching the language learning experience for all students. Moreover, within the context of speaking classrooms, ChatGPT emerges as a promising tool with the potential to enhance motivation through personalized feedback, task enjoyment, and interactive learning. While the impact on self-esteem appears positive in terms of feedback provision and task accomplishment, caution is advised against overreliance to prevent hindrances in social communication skills. Regarding anxiety, the literature presents mixed findings, suggesting the need for further exploration to delineate the nuanced effects of ChatGPT interaction on learners' anxiety levels and self-assurance in verbal communication contexts.

## III. AIM AND OBJECTIVES OF THE STUDY

This study assesses the impact of ChatGPT on reducing the affective filter and enhancing speaking proficiency among EFL medical track students at the University of Bisha. Specifically, the study aims to identify the multifaceted influence of ChatGPT on a specific group of EFL learners (medical track students) by examining its impact on emotional factors (motivation, self-esteem, and anxiety) and speaking proficiency. Accordingly, the study objectives are as follows:

- 1- To assess the influence of ChatGPT on motivation levels of EFL medical track students during speaking tasks.
- 2- To examine the impact of ChatGPT on self-esteem among EFL medical track students.
- 3- To evaluate the effectiveness of ChatGPT in reducing anxiety levels of EFL medical track students during speaking practice.
- 4- To explore how ChatGPT contributes to improved speaking proficiency among EFL medical track students.

## IV. QUESTIONS OF THE STUDY

The focuses on the effectiveness of ChatGPT in mitigating the affective filter, a mental block hindering language learning, among EFL medical track students. To achieve this, the study explores how ChatGPT influences students' emotions and speaking proficiency. Here are the research questions guiding this investigation:

- 1- To what extent does ChatGPT address the affective filter (anxiety, motivation, self-esteem) of EFL medical track students, leading to improvements in speaking proficiency?
- 2- How did ChatGPT's specific features (e.g., personalized feedback and simulated conversations) influence the speaking practice experiences of EFL medical track students?
- 3- Did the use of ChatGPT in speaking practice activities lead to a significant increase in self-reported motivation among EFL medical track students?

## V. METHODOLOGY

The methodology section details how the researchers investigated the impact of ChatGPT on EFL medical track students. Eighteen participants took a speaking pre-test. The study then employed a mixed methods approach, combining a seven-week intervention using ChatGPT speaking techniques with post-intervention interviews. The researchers monitored and supported participants throughout the intervention. Finally, a post-test measured improvement and interviews explored their experiences with ChatGPT's impact on anxiety, motivation, and self-esteem.

### A. *Participants*

The data were collected from a sample of eighteen freshman female students enrolled in the medical track program at the University of Bisha. Data collection was conducted during the second semester of the 2024 academic year. All participants were actively engaged in the General English 2 course, a program designed to cultivate general proficiency in the English language. This twelve-hour-per-week course provided a structured environment for the development of core English

language skills. The specific sample of eighteen participants was chosen to ensure a homogenous group in terms of academic background and language learning experience. This homogeneity aimed to mitigate potential confounding variables and strengthen the internal validity of the study's findings.

### *B. Research Design*

This study adopts a mixed methods approach to explore the effects of ChatGPT on the reduction of the language affective filter and the enhancement of motivation and self-esteem during speaking classes. This approach capitalizes on the strengths of both quantitative and qualitative data collection.

### *C. Instruments of the Study*

Two instruments were used in the study: the Speaking Pre-posttest and semi-structured interviews.

#### *(a). The Speaking Pre-Posttest*

It was administered before and after the intervention period involving ChatGPT use to collect the quantitative data of the study. These tests assessed participants' speaking proficiency. By comparing the pre-test and post-test scores, the researchers quantified the potential advancements in speaking proficiency and assessed the effectiveness of the intervention in reducing the students' affective filter. Specifically, a standardized speaking task was developed by the researchers and meticulously evaluated using a five-point rubric by a panel of experienced raters. This task served as the pre-test, administered to all participants at the start of the study. Following the seven-week intervention period where participants practiced using ChatGPT, a subsequent speaking task was assigned as the post-test. The speaking tasks were meticulously constructed to directly assess the course objectives, ensuring a clear link between the evaluated skills and the intended learning outcomes. Evaluating speaking performance was done through a standardized rubric developed by English language instructors within the University of Bisha's English Department. This rubric, adapted from the Rcampus website, provided a comprehensive framework for analyzing speaking skills across five key categories: Range, Accuracy, Fluency, Coherence, and Interaction.

**Range.** This category evaluated the variety and complexity of vocabulary and grammatical structures employed by participants during their speaking tasks.

**Accuracy.** Here, the focus was on assessing the participants' grammatical correctness, pronunciation, and spelling during their spoken responses.

**Fluency.** This category examined participants' overall ease and flow of speech, including aspects like natural pacing, minimal hesitation, and smooth transitions between ideas.

**Coherence.** This dimension assessed participants' ability to organize their thoughts and express ideas in a clear, logical, and cohesive manner.

**Interaction.** This category evaluated participants' ability to engage in a two-way conversation by actively listening, responding appropriately, and demonstrating awareness of conversational cues.

Each category employed a four-point scale, with 1 denoting the lowest level of performance and 4 signifying the highest level of achievement. To generate a final score out of 10 for each participant, the individual category scores were summed and then divided by two. This standardized scoring approach ensured consistency in evaluation and facilitated reliable comparisons between the pre-test and post-test results. Notably, the speaking test was administered as a post-test following the intervention period, utilizing the same rigorous assessment method. This pre-posttest design enabled the researchers to systematically measure any potential improvements in speaking proficiency attributable to the use of ChatGPT.

#### *(b). Semi-Structured Interviews*

To complement the quantitative data obtained from the pre-and post-speaking tests, semi-structured interviews were utilized to assess participants' perspectives and encounters with ChatGPT during speaking practice. These interviews, conducted individually with all eighteen participants post-intervention, featured open-ended questions aimed at eliciting detailed responses. Lasting approximately five minutes each, the interviews were tailored to provide a platform for participants to expand on their thoughts and emotions. By exploring the impact of ChatGPT on the affective filter, language motivation, and self-esteem, the interviews yielded valuable insights into the nuanced ways through which ChatGPT influenced these variables within the context of speaking lessons.

The audio recordings from these interviews were meticulously transcribed to enable a comprehensive analysis of participants' responses. This analysis focused on capturing a range of elements, including:

**Attitudes towards the intervention.** The interview aimed to examine participants' overall impressions and experiences with the experiment involving ChatGPT.

**Changes in affective states.** The interview explored potential shifts in participants' feelings, specifically focusing on anxiety, motivation, and self-esteem while practicing speaking tasks with ChatGPT.

**Reasons for affective changes.** Participants were encouraged to elaborate on the factors contributing to their feelings of anxiety, confidence, or motivation when practicing speaking English.

**Impact of ChatGPT on anxiety.** A key question probed participants' perceptions of how using ChatGPT potentially influenced their anxiety levels. Here, an open-ended approach allowed participants to express any additional feelings that emerged during their speaking practice with the AI tool.

The specific interview questions employed were:

1. Can you describe your initial feelings – anxiety, confidence, motivation, or perhaps something else – when you begin a speaking task? How intense would you say these feelings are? This broad question invited participants to share their dominant emotional state at the start of a speaking task.
2. Why do you think you experience those particular feelings when you begin speaking English? This question encouraged introspection, prompting participants to assess the reasons behind their initial emotional responses.
3. In your opinion, how did using ChatGPT affect your initial feelings (e.g., anxiety)? Did you experience any other changes in feelings while using ChatGPT? This question directly addressed the core focus of the interview, investigating participants' perceptions of how ChatGPT influenced their emotional state during speaking practice.

This mixed-research approach combined the strengths of quantitative and qualitative methodologies. The pre-posttest provided objective measures of speaking proficiency, while the semi-structured interview facilitated a richer understanding of participants' experiences using ChatGPT. This triangulation of data strengthened the overall validity and reliability of the study findings.

#### D. Procedure of the Study

This part details the research design and implementation of the intervention utilizing, ChatGPT.

##### (a). Speaking Pre-Test Administration

The study commenced with the administration of a standardized speaking pre-test for all eighteen participants. This pre-test served as a baseline assessment of participants' speaking proficiency and ensured alignment with the course objectives.

##### (b). Intervention Phase

Following the pre-test, the intervention phase commenced. This phase spanned seven weeks and involved all eighteen participants actively practicing their speaking skills with ChatGPT techniques. To guide their practice sessions, the researchers carefully selected and organized a series of ChatGPT techniques designed to address the established course objectives. Each week, participants were introduced to a new technique, as outlined in Table 1.

TABLE 1  
TECHNIQUES FOR ENGLISH SPEAKING SKILL PRACTICE WITH CHATGPT

Week	Speaking Technique
1	Shadowing Technique with ChatGPT
2	Role-Playing with ChatGPT
3	Interview with ChatGPT
4	Storytelling with ChatGPT
6	Topic Exploration with ChatGPT
7	Conversational Practice (Open-Ended Questions) with ChatGPT

##### (c). Monitoring and Support

Throughout the seven-week intervention period, the researchers maintained regular contact with participants to ensure comprehension and effective application of the designated speaking techniques. This ongoing support aimed to maximize the participants' engagement and potential benefits from utilizing ChatGPT.

##### (d). Speaking Post-Test and Interview Administration

Upon completion of the seven-week intervention, a post-test identical to the pre-test was administered to all participants. This post-test facilitated the evaluation of potential improvements in speaking proficiency attributable to the use of ChatGPT. Additionally, a semi-structured interview was conducted with each participant following the intervention period. This qualitative data collection method aimed to gather in-depth insights into their experiences with ChatGPT, including perceived changes in anxiety levels, motivation, and self-esteem related to speaking English.

## VI. RESULTS AND DISCUSSION

This study examines the influence of ChatGPT on the motivational, self-esteem, and anxiety-related factors (affective factors) of female medical-track students enrolled in a General English 2 course at the University of Bisha. Employing a pre-test, post-test design with speaking tasks and semi-structured interviews, the study explored how ChatGPT usage impacted participants' motivation to engage in language learning activities, their self-esteem during language tasks, and its effectiveness in mitigating anxiety associated with speaking English. This analysis of both quantitative and qualitative data aimed to shed light on the multifaceted influence of ChatGPT on the affective factors of EFL learners in this specific context.

### A. Results of the Speaking Pre-Posttest

The quantitative analysis aimed to assess the potential influence of the ChatGPT intervention on participants' speaking proficiency. The quantitative analysis assessed the potential impact of the ChatGPT intervention on participants' speaking

proficiency. Data obtained from the pre- and post-speaking tests were subjected to rigorous statistical analysis using a paired-samples t-test to determine the presence of any statistically significant differences between the speaking pre-test and post-test.

TABLE 2  
DESCRIPTIVE STATISTICS OF SPEAKING PRE-POST-TEST SCORES

Test	Number	Minimum	Maximum	Mean (M)	Standard Deviation (SD)
Pre-Test	18	1.40	2.80	1.9176	0.47989
Post-Test	18	1.40	3.00	2.4118	0.43284

Table 2 presents the descriptive statistics of the speaking test scores obtained from both the pre-test and post-test administrations. As illustrated, the mean total score on the pre-test was 1.9176 (SD = 0.47989), indicating an average performance level across the five assessed categories (Range, Accuracy, Fluency, Coherence, and Interaction). Notably, the minimum score on the pre-test was 1.40, while the maximum score reached 2.80, suggesting some initial variation in speaking proficiency among the participants. Following the seven-week intervention period utilizing ChatGPT, the mean total score on the post-test increased to 2.4118 (SD = 0.43284). This observed improvement suggests a potential positive influence of the intervention on participants' speaking skills. The maximum score on the post-test reached 3.00, demonstrating improvement for some participants, while the minimum score remained at 1.40.

To determine the statistical significance of the observed improvement in mean scores, a one-sample t-test was conducted. The results of the t-test, as displayed in Table 3, revealed a statistically significant difference between the pre-test and post-test scores ( $t = 16.476$ ,  $p = 0.000$ ). This statistically significant difference ( $p < 0.05$ ) allows us to conclude that the ChatGPT intervention had a positive impact on participants' affective filter and overall speaking proficiency, as measured by the pre-posttest scores.

TABLE 3  
ONE-SAMPLE T-TEST RESULTS

Test	Test Value	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
Pre-test vs. Post-test	$t = 16.476$	16	0.000	0.49415	0.16709

The quantitative findings provide initial evidence suggesting that the ChatGPT intervention effectively enhanced the speaking proficiency of EFL learners enrolled in the medical track program. The statistically significant increase in the mean total score on the post-test compared to the pre-test indicates a positive trend in participants' speaking proficiency. However, it is crucial to acknowledge that these findings are based on a relatively small sample size ( $n = 18$ ). Future research with larger participant groups could further solidify the generalizability of these results. Additionally, the qualitative data obtained from the semi-structured interviews are presented in the subsequent section to gain deeper insights into participants' experiences with ChatGPT and their perceived changes in affective factors, such as motivation, self-esteem, and anxiety.

*B. Results of the Semi-Structured Interviews*

The quantitative analysis aimed to assess the potential influence of the ChatGPT intervention on participants' speaking proficiency. The quantitative analysis assessed the potential impact of the ChatGPT intervention on participants' speaking proficiency. Data obtained from the pre- and post-speaking tests were subjected to rigorous statistical analysis using a paired-samples t-test to determine the presence of any statistically significant differences between the speaking pre-test and post-test.

Thematic analysis of the semi-structured interviews conducted in this study yielded rich insights into participants' emotional landscape. These interviews aimed to explore the following key questions:

**Initial Feelings During Speaking Tasks:** Participants were invited to describe their dominant emotional state at the outset of a speaking task, along with the intensity of these feelings.

**Reasons Behind Initial Emotional Responses:** This question probed participants' self-reflection on the underlying factors contributing to their initial emotions when speaking English.

**Perceived Impact of ChatGPT on Emotional State:** This core question investigated participants' perceptions of how using ChatGPT influenced their emotional state during speaking practice. Did they experience any changes in emotions while using the AI tool?

1. Dominant Emotional Response: Anxiety

A significant theme surfaced from the analysis: when participants initiated speaking tasks, anxiety was almost universally present as the dominant emotion. A majority of the participants, 98%, indicated that they had encountered anxiety, which varied in intensity from low to high. Only 2% of participants denied feeling any anxiety during such activities. These findings resonate with established research highlighting anxiety as a prevalent barrier in foreign language speaking tasks (Elahi Shirvan & Talebzadeh, 2020).

2. Shifting Emotional Landscape with ChatGPT

One of the primary objectives of this study was to investigate whether the 7-week training course utilizing ChatGPT could influence participants' emotional states associated with speaking English. The interview data revealed a promising trend – all participants expressed a decrease in their anxiety levels after the intervention. This finding suggests that AI-

powered language learning tools like ChatGPT have the potential to lower negative emotions associated with speaking tasks.

### 3. Pre-Teaching Emotional Experiences and Attitudes

Beyond anxiety, the interviews unveiled a range of negative emotions participants experienced prior to the ChatGPT teaching. These emotions included low motivation, embarrassment, hesitation, fear of speaking, diminished self-confidence, and a general reluctance to engage in spoken language activities. Participants attributed these negative emotions to the anxiety they faced in such learning situations. These findings align with prior research demonstrating the detrimental impact of anxiety on language learning motivation and performance (MacIntyre & Gregersen, 2012).

### 4. Post-Teaching Emotional Shift and Positive Outcomes

The interviews revealed a significant shift in participants' emotional states and attitudes following the 7-week ChatGPT teaching. Participants expressed a sense of satisfaction with the positive changes they experienced. They reported improvements in speaking fluency, vocabulary acquisition, and overall language performance. Notably, a newfound sense of self-confidence emerged as a recurring theme, signifying a marked contrast from their initial anxieties. Additionally, participants described feeling more motivated, enthusiastic, and willing to engage in spoken language practice. This positive shift in emotional state and motivation aligns with research suggesting that positive emotions can enhance language learning outcomes (Dewaele & MacIntyre, 2016).

### 5. Reasons Behind Emotional Shifts: Perceived Benefits of ChatGPT

A third prominent theme from the interviews explored the underlying factors contributing to the observed changes in participants' emotional experiences. When discussing their initial anxiety, most interviewees attributed these feelings to a fear of making mistakes in grammar and pronunciation. However, they indicated that the ChatGPT-based course provided them with the tools and support system to overcome these anxieties and cultivate a more positive mindset towards speaking English.

Several key features of ChatGPT were identified by participants as instrumental in this transformative experience:

**Personalized Feedback and Error Correction.** Participants highly valued the ability to receive immediate feedback and error corrections from the AI application. This feature allowed them to improve their spoken language skills in a safe and supportive environment, free from the fear of judgment or embarrassment.

**Simulated Conversational Practice.** The interactive nature of ChatGPT, simulating natural conversations in both written and oral formats, provided participants with a safe space to practice their speaking skills without the pressure of real-time interactions. This approach aligns with research advocating for the benefits of simulated conversational practice in language learning (Ericsson & Johansson, 2023).

**Non-judgmental Learning Environment.** The impersonal nature of interacting with an AI system was highlighted by participants as a significant factor in alleviating their anxieties about making mistakes. They did not experience the potential embarrassment associated with speaking to another person.

## VII. CONCLUSIONS AND IMPLICATIONS

This study investigated the impact of ChatGPT on the affective factors (motivation, self-esteem, and anxiety) of female EFL learners enrolled in a medical track program at the University of Bisha. By employing a mixed-methods approach with speaking pre-posttest and semi-structured interviews, the study explored the multifaceted influence of ChatGPT on these learners' emotional states and their perceptions of their speaking proficiency.

The quantitative findings revealed a statistically significant improvement in participants' speaking performance following a seven-week intervention period utilizing ChatGPT. This suggests that ChatGPT may be effective in enhancing speaking proficiency among EFL learners. However, future research with larger and more diverse participant groups is warranted to solidify the generalizability of these findings.

Thematic analysis of the interviews provided a vivid picture of the emotional landscape surrounding spoken English tasks. Anxiety emerged as the dominant pre-training emotion, with nearly all participants reporting varying degrees of anxiety when initiating speaking tasks. This aligns with existing research highlighting anxiety as a significant barrier in EFL speaking (Elahi Shirvan & Talebzadeh, 2020).

Following the ChatGPT intervention, a significant positive shift in emotional state and attitudes was observed. All participants reported a decrease in their anxiety, and they expressed a sense of satisfaction with their progress, reporting improvements in speaking fluency, vocabulary acquisition, and overall language performance. Notably, a newfound sense of self-confidence emerged as a recurring theme, signifying a marked contrast from their initial anxieties.

Furthermore, they described experiencing a range of positive emotional changes, including increased motivation, self-esteem, and enthusiasm for spoken language practice. These findings suggest that ChatGPT has the potential to mitigate negative emotions associated with speaking tasks and foster a more positive learning environment. Additionally, participants became more motivated, enthusiastic, and willing to engage in spoken language practice. This positive emotional shift aligns with research suggesting that positive emotions can enhance language learning outcomes (Dewaele, 2019).

Several key features of ChatGPT were identified by participants as instrumental in facilitating these positive changes. The ability to receive immediate, personalized feedback and error correction in a safe and non-judgmental environment was highly valued. Additionally, the interactive nature of ChatGPT, simulating natural conversations, provided a low-

pressure space for participants to practice their speaking skills. Notably, the impersonal nature of interacting with an AI system was highlighted by participants as a factor that reduced their anxieties about making mistakes.

The findings of this study offer valuable insights for the integration of AI-powered language learning tools like ChatGPT into EFL classrooms. By addressing the affective factors that can hinder language acquisition, such as anxiety and low self-esteem, these tools have the potential to create more positive and engaging learning experiences. The personalized feedback, error correction, and safe practice environment offered by ChatGPT can empower learners to overcome their anxieties and develop greater confidence in their spoken language abilities.

Future research is recommended to explore the long-term effects of AI-assisted language learning on EFL learners' affective factors and speaking proficiency. Additionally, research on the effectiveness of ChatGPT or similar AI tools in different learning contexts and with more diverse learner populations would be valuable contributions to the field.

In conclusion, this study demonstrates the potential of ChatGPT to positively impact the affective factors and speaking proficiency of EFL learners. By fostering a more positive and supportive learning environment, AI-powered language learning tools can play a significant role in enhancing EFL learners' motivation, self-esteem, and communication skills. This study paves the way for further exploration of AI-powered language learning tools and their impact on the affective domain in EFL contexts. Future studies could investigate the long-term effects of such interventions on learners' motivation, self-esteem, and anxiety levels. Additionally, research could explore the effectiveness of ChatGPT across different language learning contexts, proficiency levels, and learner demographics. Further research is also required to examine the precise impact of ChatGPT on anxiety levels among EFL learners. Furthermore, investigations into the potential limitations and ethical considerations of using AI-powered language learning tools would be valuable in refining their application within the EFL classroom.

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