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Exploring Saudi EFL Learners' Perceptions and Use of AI-Powered English Learning Platforms in the Context of Vision 2030

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Abstract

This study examines how Saudi EFL students perceive and use AI-based learning tools in English based on the technology acceptance model (TAM) and Saudi Vision 2030. A quantitative descriptive approach was employed in the collection of data via a questionnaire completed by 68 Saudi male undergraduate students in the public universities. As the results have shown, the level of awareness of AI tools was very high (83.8%), and the most used platforms were ChatGPT, Duolingo, and Grammarly. Although the level of awareness of AI tools was high, the actual use of the tools was rather low among students. Students displayed fairly favourable attitudes concerning the usefulness of AI and the benefits of engagement, but reported difficulties associated with overdependence, privacy concerns, and a lack of Arabic compatibility. Overall, the results demonstrate a balanced optimism and propose institutional policies, ethical education, and AI literacy to facilitate successful implementation in Saudi higher education.

Keywords: Artificial intelligence, EFL learning, Saudi Arabia, Technology Acceptance Model (TAM), Vision 2030, CALL, student perceptions

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Introduction

The digitisation of education has changed the manner in which languages are taught, and the notion of artificial intelligence (AI) is currently an inseparable part of the modern teaching process. The EFL learners are now supported by AI-based applications like ChatGPT, Grammarly, Duolingo, and Google Bard, which offer personalised instructions, real-time feedback, and adaptive learning. These sites imitate the interaction between human beings and technology and adapt to personal proficiency, which allows students to study on their own and at their own pace. The implementation of AI in the field of language education is also a life-changer because it is associated with the shift in the idea of the teacher to the learner-centred technology-oriented interaction, which represents the tendency toward intelligent and data-informed education worldwide.

The adoption of AI in education in the context of Saudi Arabia is consistent with the goals of Vision 2030, which stimulates innovativeness, digital literacy, and technological progress in the field of higher education. The programme promotes the use of emerging technologies in improving the quality of learning and equipping the students with the skills to compete in the global market. Universities in the Kingdom tend to adopt AI to enhance English-based education, automate evaluation, and self-directed learning. As proficiency in the English language is essential to academic and professional achievement, AI-enhanced EFL education contributes to the attainment of national objectives by providing students with the ability to connect with the world of knowledge and communication.

1.1. Problem Statement

Although the use of AI-assisted language learning is increasing all over the world, empirical studies in Saudi Arabia are few. Whereas the global research illustrates the potential of AI in improving the outcome of language learning and motivation, the local research provides only partial results. According to research by Jamshed et al. (2024b), Alqaed (2024), and Aldawsari & Almohish (2024), Saudi students and educators are positive concerning the use of AI-based tools, but also face limitations such as limited training, over-dependence, as well as ethical issues. Nevertheless, not many studies concentrate on the experiences of undergraduate learners and do not offer any quantifiable data regarding the perception and the real use of AI platforms. The absence of such detailed, student-focused data clearly indicates the necessity of empirical research, which would explore the perception and usage of AI-based technologies for learning English by Saudi EFL students.

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1.2. Purpose of the Study

This study examines the current awareness, attitudes, and usage trends of Saudi undergraduate EFL students concerning the AI-based English learning platforms. It will determine the most frequently used tools, the language skills that students practice using them, and also the problems that the students face. The study is an empirical study with a descriptive quantitative design that relies on survey data of 68 respondents on perceived advantages and constraints of the use of AI-assisted learning in the Saudi setting. The research offers a valuable contribution to the existing body of knowledge of AI in EFL teaching by not considering the institutional perspective but the experiences of learners instead.

1.3. Research Questions

To achieve its objectives, the study addresses the following research questions:

1. What are students' perceptions of AI-powered English learning platforms?
2. Which AI tools and English skills do Saudi EFL students most commonly use?
3. What challenges and limitations do students face when using AI-powered platforms?
4. How willing are students to recommend these platforms to their peers?

1.4. Significance of the Study

This research is relevant in theory and practice. In principle, it contributes to the domain of Computer-Assisted Language Learning (CALL) through demonstrating how the perceptions of the students regarding the use of AI tools are conditioned by their perceived utility and ease of use as described by the Technology Acceptance Model (TAM). In practice, the results can inform the teachers, curriculum developers, and policymakers intending to introduce AI in English instruction to do so in a cautious and efficient manner. By comprehending the opinions of students, it is possible to develop more effective training programmes, promote responsible use of AI, and implement other strategies that can be used to accommodate Saudi Vision 2030. The research also identifies the areas in which the educational institutions should offer assistance to prevent the unfair and unstable application of AI in education: the schools and universities should provide better access to technologies, train teachers, and create awareness of the implications of data privacy.

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1.5. Paper Organisation

The paper will be divided into six parts. After this introduction, the Literature Review covers the theories and past studies regarding the application of AI-assisted language learning in international and Saudi settings. The Methodology provides the research design, participants, data collection, and analysis instruments and processes. The results section gives the statistical results, and the discussion gives the interpretation of the results concerning the available literature and theoretical frameworks. Lastly, the conclusion recaps the main findings, conclusions, limitations, and suggestions on conducting future research on AI in Saudi EFL learning.

2. Literature Review

2.1. Theoretical Foundation

Artificial intelligence (AI) has revolutionised the concept of language education, where conventional theories have been put to use to explain how learners perceive and interact with the emerging technologies. The study is supported by two frameworks: the Technology Acceptance Model (TAM) and the socioconstructivist learning theory, which are interconnected in their ability to establish a connection between the attitude of learners towards AI and their interactive experiences in the process of English language learning.

The Technology Acceptance Model (TAM) by Davis (1989) describes the ways that people accept and use technology in reference to two constructs, which are perceived usefulness (the belief that technology improves performance) and perceived ease of use (the belief that technology needs no or minimal effort) (Lee et al., 2025). All these elements influence the attitude and intention of the users to adopt. TAM has been extensively used in English as a Foreign Language (EFL) settings to investigate technology-related learning behavioural patterns, such as using mobile learning applications, web-based platforms, and the use of intelligent tutoring. According to Jamshed et al. (2024a), the perceptions of efficiency and user-friendliness are the most important factors that determine whether EFL learners will be willing to use AI-based tools. These aspects in Saudi Arabia are similar to the national Vision 2030 programme, which emphasises technological innovation and the incorporation of available, useful digital tools in higher education.

The socio-constructivist learning theory is used to supplement TAM since it focuses on socially mediated learning that is created by means of interaction. Based on the idea of the Zone of Proximal Development (ZPD) proposed by Vygotsky (1978), implies that learners can reach the next level of cognitive development by means of collaborative work and scaffolding (Shabani et al., 2010). The AI tools represent these principles because they serve as mediating agents that are useful in giving feedback, modelling linguistic behaviour, and adopting activities to suit the needs of learners.

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Chatbots, such as ChatGPT, are used to create conversational interaction, and the use of tools, such as Grammarly, is functionally equivalent to the formative feedback of a teacher. According to Alenezi (2025), AI facilitates a joint venture between human teachings and smart systems. Collectively, TAM is used to understand why learners embrace AI, whereas socio-constructivism is used to understand how AI supports learning as an interactive, adaptive, and co-constructed process.

2.2. Global Perspectives on AI in Language Learning

An increasing amount of research across the world proves that artificial intelligence (AI) has already transformed the English as a Foreign Language (EFL) education by improving the quality of writing, accuracy of pronunciation, and personalised feedback, as well as motivation among learners. Jamshed et al. (2025) found that AI-assisted writing tools greatly enhance the syntactic accuracy of the writing and the lexical diversity of intermediate learners by offering context-sensitive corrections in real-time. Likewise, Jamshed et al. (2025) discovered that intelligent writing assistants promote learner self-direction and interaction and provide the opportunity to engage in self-editing and then have the teacher engage with the writing. These results substantiate the idea that AI enhances metacognitive awareness and self-regulated learning and allows students to have more control over their development.

Alotaibi et al. (2025) also found that, in speaking and pronunciation, speech-recognition technologies enhanced fluency and minimised anxiety by providing immediate feedback on oral practice. Duolingo and other gamified apps have also received praise and become more motivating as a result of adaptive learning based on rewards (Alharthi, 2024). Moreover, according to Alqaed (2024), text analysis and corpus tools that are run by AI improve the linguistic and literary research process by automating the data analysis and making textual analysis more profound. The underlying idea is that these innovations show the ability of AI to combine both the cognitive and the affective components of the learning process, which is highly efficient and interesting.

Nevertheless, there are still ethical issues. Alqaed (2024) cautioned that biased AI training data is capable of reproducing linguistic inequalities and the presence of algorithmic dominance that silences non-native voices. As a result, scholars like Alqaed (2024) and Alotaibi et al. (2025) propose the idea of balanced and ethical application of AI, which would integrate the level of technological competence with the critical level of digital literacy, to be used in worldwide education fairly and reflectively.

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2.3. AI in Saudi EFL Contexts

The adoption of artificial intelligence (AI) in English as a Foreign Language (EFL) education in Saudi Arabia has grown significantly in recent years, in line with the digital transformation agenda of Vision 2030 in the country. Nevertheless, empirical studies in this field are not that long-standing and are scarce. Jamshed et al. (2024a) present one of the first large-scale quantitative studies of the perceptions of Saudi EFL learners regarding AI-powered learning. Their results showed quite favourable attitudes, and students admitted the possibility of AI improving engagement, self-confidence, and language proficiency. However, the problem of inadequate training of teachers, the lack of appropriate institutional infrastructure, and the confusion of the pedagogical role of AI appeared. The authors concluded that successful adoption needs to be structured with the teachers taking part and the AI implementation being aligned with curricular aims.

It is based on these insights that Alqaed (2024) investigated the ways Saudi undergraduates used AI to enhance writing and vocabulary skills. Learners appreciated the expediency of AI feedback and its ability to provide individualised learning, but cautioned that excessive reliance would kill creativity and critical thinking. In a similar manner, Alenezi (2025) addressed the topic of AI-based formative assessment and stated that automated feedback enhanced the accuracy of writing and motivation among students and that there were some constant limitations in the Arabic natural language processing (NLP) that sometimes made erroneous interpretations.

In the view of educators, Aldawsari and Almohish (2024) investigated the opportunities and threats linked to the integration of AI. Teachers saw AI as a tool for individualising instruction and supporting students outside the classroom, but expressed concerns about data privacy, unethical use, and training deficits. Such concerns resemble those expressed by Al Fraidan (2024) in his article about the benefits of AI-based library infrastructure, where faculty and students alike found the new technology helpful in terms of enhancing research productivity, yet were affected by the unaddressed problem of algorithmic biases and data safety.

In the context of interactions between learners and conversational AI, Alharthi (2024) concluded that students viewed ChatGPT as an effective and encouraging language helper, in particular, to correct grammar and provide contextual clarifications. Nevertheless, there were a few reported inaccuracies and cultural constraints in advanced situations. Another study, by Altamimi (2025), also verified that AI applications increased grammatical and lexical accuracy but were not culture and context-sensitive, creating a need to develop culturally responsive AI systems.

Jamshed et al. (2025) also examined the viewpoints of teachers, and their mixed-methods study demonstrated that instructors saw ChatGPT as a

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powerful pedagogical tool but feared that it would decrease the originality of learners. Collectively, these studies imply that the pedagogical advantage of AI is highly appreciated by Saudi educators and learners, adoption is limited by several ethical, technical, and linguistic factors, and its sustainable introduction requires a human-AI mutual relationship with the assistance of institutional policy and teacher education.

2.4. Identified Research Gaps

Although the Saudi literature is quite informative, there are still major gaps. The majority of researchers have researched either the view of educators or institution implementation, and little has been done on the direct experiences of students during AI-assisted learning. Also, despite the positive attitudes, which are reported by many researchers (e.g., Jamshed et al., 2025; Alqaed, 2024; Alharthi, 2024), relatively few studies have determined the relationship between awareness and frequency of use, as well as their perceived usefulness in the same cohort. Most of the research works use either qualitative or mixed approaches, which leads to low generalizability. The other weakness is the limited focus on a specific skill, e.g., writing or vocabulary, whereas the importance of integrated skill development, i.e., reading, listening, and speaking, has been less studied.

The ethical and cultural issues also need to be taken a closer look at. Research, including that of Aldawsari and Almohish (2024) and Al Fraidan (2024), highlights the issue of data privacy, but empirical investigation of how students view this risk is lacking. Similarly, although Saudi Arabia is focused on the digital transformation, the studies seldom dwell on how AI fits the level of preparedness of learners, the availability of infrastructure, or the issue of the Arabic-language interface. All these gaps require a data-grounded approach that defines the scope of the perceptions of students and their subtleties--exactly what the current study is about.

2.5. Conceptual Framework

The study takes an integrated conceptual approach, which involves the use of the Technology Acceptance Model (TAM) and CALL-based pedagogical views. The framework presupposes that the understanding of the AI-powered tools will determine the behaviour of the learners in their use, and it is this behaviour that will affect their perceptions and intention to recommend such technologies. Within this model:

- The perceived usefulness motivates the learners to perceive AI as a way of language skills and motivation enhancement.
- Perceived ease of use is what will determine the availability and ease of use of AI tools to a learner.

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- The behavioural intention is a pointer to the intentions to utilise or recommend such tools.

Interaction, teamwork, and feedback link socio-constructivist concepts that provide students with meaning and understanding through the assistance of AI as a learning companion. Local factors of culture, institutional readiness, and awareness of morality are also applicable in Saudi EFL contexts because they affect this relationship.

The next set of interrelated dimensions allows conceptualising the framework: Awareness → Usage → Perceived Usefulness & Ease of Use → Perceptions → Intention to Recommend

This chain represents the recursive nature of the technology usage and the learner experience in the CALL environments. The perceptions about AI tools change as students interact with them, affecting long-term use and promotion. Positive experiences, on the other hand, build confidence and prompt broader adoption and make a learning innovation feedback loop.

The analysed sources concur that AI is one of the most effective technologies in English language learning that can be used to increase the accuracy, motivation, and autonomy. Although Saudi research indicates positive attitudes, it has also indicated ethical, technical, and contextual challenges. Nevertheless, not many large-scale quantitative studies are conducted, meaning that the actual experience of the students is not fully studied. This research bridges that gap, as it explores the perception of Saudi EFL learners, their use, and challenges, providing both theoretical knowledge and practical recommendations to the sustainable integration of AI in the language education process.

3. Methodology

3.1. Research Design

The research design employed a quantitative descriptive research design, which is a research design that is commonly used to summarise trends and attitudes in educational research without manipulating variables (Creswell & Creswell, 2018). It was used to investigate the perceptions of Saudi EFL learners about the use of AI-powered English learning platforms. This was an appropriate method of getting quantifiable information that captures awareness, attitudes, and experience of the participants without manipulation of the variables. Quantitative descriptive research makes objective statements about tendencies by means of quantitative indicators, i.e., by means and frequencies. This has been a common design in CALL and educational technology studies (e.g., Jamshed et al., 2024a; Alqaed, 2024), enabling comparisons between groups of learners and the context. It is also suitable for

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the study, which is to establish trends according to the use and perceptions of AI among Saudi undergraduates.

3.2. Participants

The sample included 68 Saudi male undergraduate students who were taking English courses in government universities. They were all native Arabic speakers between the ages of 19-24 years with six or eight years of English studies. The convenience sampling technique was used due to accessibility and relevance to the scope of the study. The participants were a homogeneous group of EFL learners who were accustomed to the technology-based learning settings. The participants were informed about the aim of the study and guaranteed that their participation was voluntary and anonymous. Participation was informed, and a high level of confidentiality was ensured. No personal information was gathered, which guaranteed unbiased answers.

3.3. Instrument

The data were collected with the help of the structured online questionnaire developed with the help of Google Forms. The tool was created both in English and Arabic to make it clear to all participants and had four sections.

1. Demographics: Items on age, level of English proficiency, and awareness of AI-powered tools (e.g., ChatGPT, Duolingo AI, Grammarly).
2. Usage patterns: Questions on frequency of AI tool use, preferred platforms, and skills practised (reading, writing, vocabulary, pronunciation, etc.).
3. Perception scale: Six Likert-type statements measured attitudes toward AI-assisted learning (e.g., “AI tools make learning English enjoyable”). Responses ranged from *1 = Strongly Disagree* to *5 = Strongly Agree*.

In spite of the fact that the study conceptually was based on the Technology Acceptance Model (TAM), the six perception items were not drawn as complete subscales of TAM. The questionnaire did not specifically assess the perceived usefulness, perceived ease of use, attitude towards use, and behavioural intention. Rather, the perception scale presented a general attitudinal picture. In this way, TAM was implemented as a theoretical prism and not a statistically tested structural model.

4. Challenges and recommendations: Items identified difficulties (e.g., access, understanding, or bias) and asked about participants’ willingness to recommend AI platforms.

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The questionnaire was also validated by three EFL experts to determine the content validity and verify the clarity and relevance of all the items, as per the standard validation procedures for survey instruments (Elangovan & Sundaravel, 2021). There were a few revisions carried out with the intention of making the language simple and getting rid of ambiguity. The pilot test conducted on ten students did confirm that the questionnaire was simple to comprehend and took less than ten minutes to complete, a usual procedure in instrument refinement (Presser et al., 2004).

3.4. Data Collection Procedure

The data collection took place in October 2025, by an online survey, based on university email and WhatsApp groups. The link remained active for two weeks. Administration online enabled the students to answer at their own time, making it accessible and reducing the effects of the interviewers. The total number of respondents was 72; after filtering the data to identify complete questionnaires, 68 valid questionnaires were analysed. All 68 valid questionnaires contained complete responses, so no missing-data treatment (such as listwise deletion or imputation) was required. This population was especially appropriate to online distribution since the participants were already accustomed to the use of online platforms, which are prevalent in Saudi universities.

3.5. Data Analysis

SPSS, as well as Microsoft Excel, were used to analyse the survey data. The data were summarised using descriptive statistics, such as frequencies, means, and standard deviations, which align with the quantitative descriptive analytical procedures (Babbie, 2020). The items based on the Likert scale were analysed to determine the levels of agreement with the six statements of perception, with the higher the mean, the stronger the positive attitudes towards AI-assisted English learning. The thematic approach to open-ended responses was performed to identify the issues that can emerge frequently, including accessibility, excessive automation, data privacy, and motivation. Qualitative insights were used to complement quantitative findings in order to come up with a comprehensive understanding. Cronbach's alpha for the six-item perception scale was $\alpha = 0.75$, which represents acceptable internal consistency for a short attitudinal scale, although the reliability is modest due to the limited number of items (Tavakol & Dennick, 2011).

Inferential statistics (e.g., correlations, chi-square test, or mean-comparison test) were not used as the study was conducted in a purely descriptive quantitative research design. The goals of the research questions were to summarise awareness, usage patterns, and perceptions, and not to test predictive relationships or group differences. Hence, the use of descriptive

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statistics was suitable in the study. Inferential analysis can be implemented in future studies to have a more rigorous approach to the statistical relationship between awareness, usage and perceptions. Since the survey lacked distinct TAM constructs, no TAM-based inferential test (e.g., structural relation among usefulness, ease of use and intention) was performed. Since the research used only descriptive statistics, there was no calculation of the effect sizes. Rather, practical significance was viewed in terms of the magnitude of mean scores and frequency pattern, which is consistent with descriptive quantitative research.

3.6. Ethical Considerations

The research has adhered to the internationally accepted ethical research standards, such as voluntary participation, informed consent, confidentiality and safe data handling (Ali et al., 2025). Respondents were free to participate voluntarily and drop out at any point without any penalty. The aim of the study, confidentiality measures and the scholarly use of their information were explained to the participants based on the current standards pertaining to conducting research that involves human subjects (The National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research, 1978). The informed consent was given in the form of an acknowledgement checkbox. All the responses were stored in a secure and password-accessible file that was only accessed by the researcher. There were neither grades nor incentives provided to avoid coercion. The participants were subsequently thanked and debriefed, and only aggregated data was reported. The research was completely done as per international requirements in as far as anonymity, privacy, and protection of data are concerned.

The research design involved a quantitative descriptive study design with the help of a validated online questionnaire to investigate the perceptions of Saudi EFL students on AI-assisted English learning. Descriptive statistics and thematic analysis would provide a solid foundation for the subsequent results and discussion as they guarantee reliable, ethical, and replicable findings on learners' awareness, usage, and attitude.

4. Results

This section reports the quantitative findings from 68 Saudi undergraduate EFL learners regarding their awareness, usage, and perceptions of AI-powered English learning platforms. The findings are displayed to reflect the main patterns and response rates by all four research questions and in an objective manner based on descriptive statistics, tables, and figures.

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4.1. Participant Demographics

The 68 respondents were all Saudi undergraduate men whose ages ranged from 19-24 years and were studying English courses at government universities. They were all native Arabic speakers who were either intermediate or upper-intermediate English speakers. The group of participants is homogenous, which is a typical Saudi demographic of EFL, which offers a constant linguistic background to assess their perceptions of AI-assisted learning in the English language.

Table 1: Participant Profile (N = 68)

Variable	Category	Frequency	Percentage
Gender	Male	68	100%
Age Range	19–24 years	68	100%
English Proficiency	Intermediate	42	61.8%
	Upper-Intermediate	26	38.2%
Native Language	Arabic	68	100%

The data show that the participants form a homogenous sample of digitally knowledgeable individuals who are fluent enough in English to be able to use AI tools and correctly answer the items of the used questionnaire.

4.2. Awareness and Frequency of AI Use

The majority of the respondents (83.8% of people knew about AI-powered English learning tools, whereas 16.2% of people did not know about them. Nevertheless, there was still low usage: 47.1% used it infrequently, 32.4% two to three times a week, and 10.3% once a week. Only 5.9% claimed to use AI tools daily, and 4.4% never used AI tools, which means that there is high awareness but low habitual use.

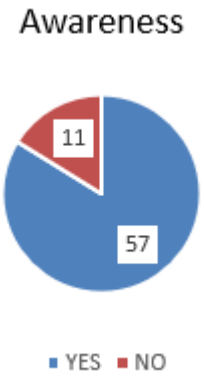

Figure 1. Awareness of AI-Powered English Learning Tools among Saudi EFL Learners

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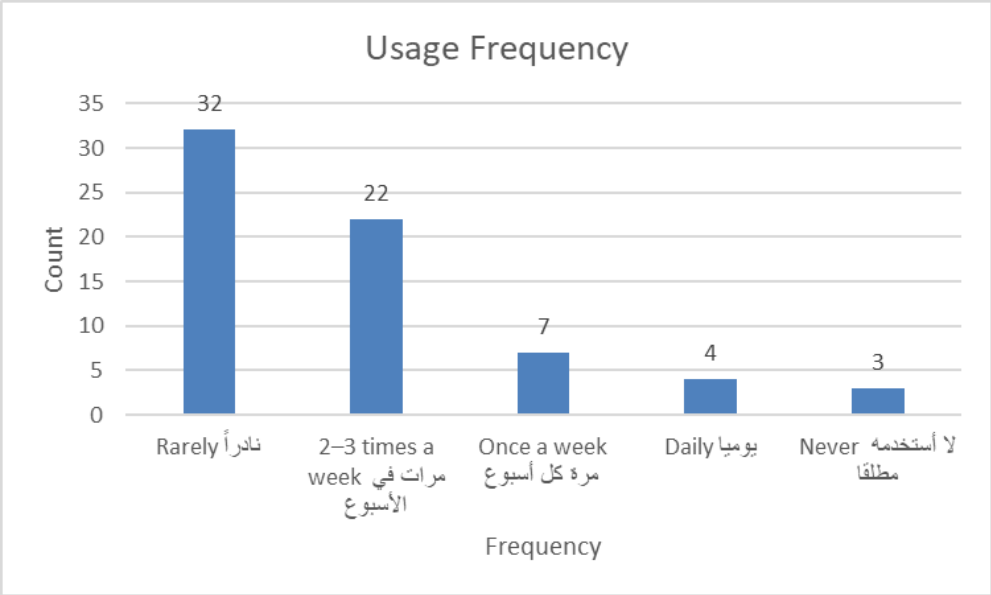

Figure 2. Frequency of AI Tool Use among Saudi EFL Learners

In general, the results indicate that the majority of Saudi EFL learners recognise the existence of AI technologies, but their usage is not very frequent and is not regular, but takes place sporadically.

4.3. Tools Used for English Learning

The learners noted a number of AI-based English learning tools. ChatGPT was the dominant one (53 users) with Duolingo AI (16) and Grammarly/writing assistants (8). Other tools—AI-powered apps like *Elsa Speak* and *Lingvist (8)*, Poe (1), Camply (1), Istori (1), video games (1), foreign podcasts/clips (1), and private tutoring (1)—were rarely used. One participant stated using no AI tools.

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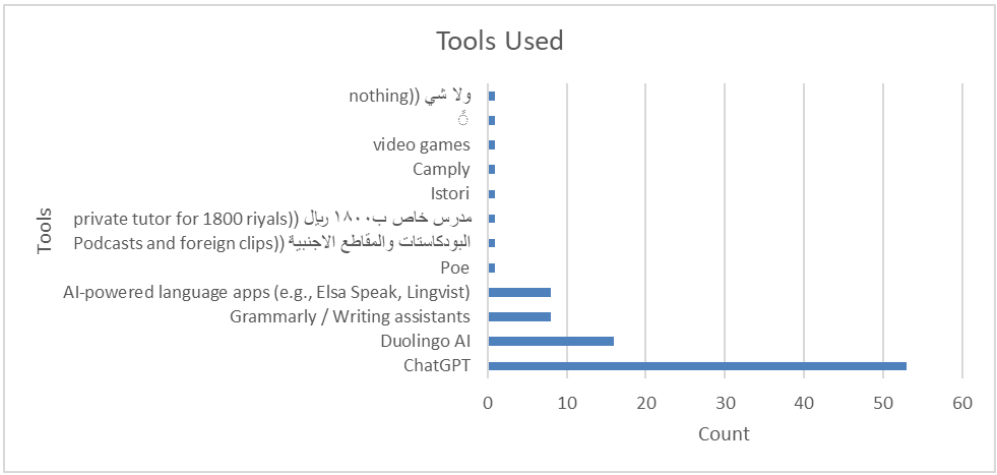

Figure 3: Most Frequently Used AI Tools by Saudi EFL Learners

Most platforms were free-access, indicating students' preference for low-cost, accessible resources. ChatGPT's dominance underscores its popularity for writing practice, translation, and general English assistance.

4.4. Skills Practised with AI Tools

Learners mainly used AI tools to improve reading (43), vocabulary (36), and writing (31) skills. As shown in Figure 3, fewer practised listening (30) and speaking/pronunciation (23).

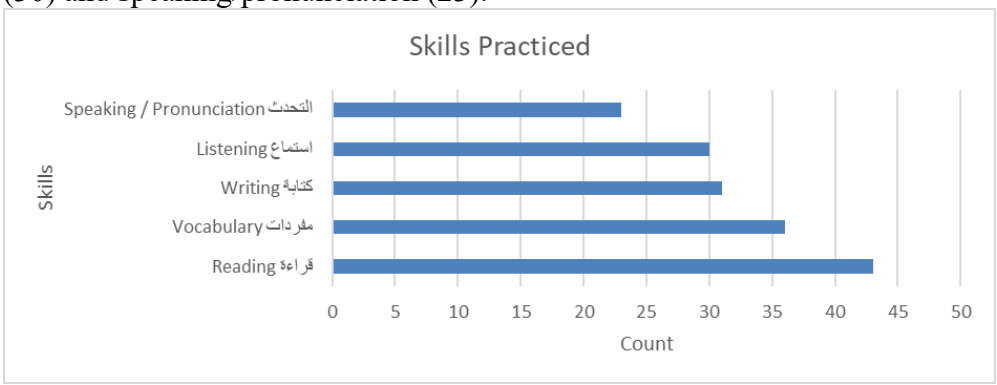

Figure 4: English Language Skills Practised Using AI Tools

Overall, Saudi EFL students favoured AI for receptive and written skills rather than oral communication.

4.5. Students' Perceptions of AI-Powered Learning Platforms

Students' perceptions were measured using six Likert-type statements rated on a five-point scale (1 = *Strongly Disagree*, 5 = *Strongly Agree*). The internal-consistency reliability for the scale produced a Cronbach's α of 0.75,

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indicating acceptable reliability for the attitudinal items. Table 2 presents the descriptive statistics for each statement.

Table 2: Descriptive Statistics for Students' Perceptions of AI-Powered Learning (N = 68)

Item	Mean	SD
AI-powered platforms help improve my English language skills.	3.51	0.94
AI tools make learning English more enjoyable and engaging.	3.41	0.92
AI platforms provide immediate and useful feedback.	3.29	0.96
I feel confident using AI tools independently for English learning.	3.09	1.00
Using AI-powered platforms helps me learn at my own pace.	3.47	0.89
AI tools cannot replace human teachers, but can complement learning.	3.41	0.97

Altogether, the results show that Saudi EFL students have a moderately positive attitude towards AI-based learning systems. The mean values were all above the neutral of 3.0, which is an indication that people generally agree on the fact that AI is conducive to learning English. The rating was the greatest regarding the enhancement of skills (M = 3.51) and studying at their own pace (M = 3.47), which is a sign of the flexibility and efficiency of AI. The medium scores in enjoyment (M = 3.41) and feedback (M = 3.29) suggest that they are useful but have minimal influence. The mean (M = 3.09) is the lowest, which indicates certain uncertainty in the independent use, whereas the students perceived AI as an addition, but not a substitute, to teachers.

4.6. Challenges and Limitations in AI Use

Open-ended answers showed that there were a number of common problems when it comes to using AI-based tools in English learning. A significant number of students acknowledged that they had become dependent on AI feedback, and this lowered individual efforts and critical thinking. Some pointed to an inadequate Arabic interface and situational correctness, where there were misunderstandings in translations, and to cultural differences. Privacy of data made some unwilling to post information on the Internet, whereas a lack of training of the users made most of them unaware of enhanced features. Some also said they found that there were technical limitations, such as unreliable internet and subscription fees. Among the participants, one of them stated that AI makes them lazy since it provides answers too easily, and that there should be a balance between automation and personal autonomous learning and contemplation.

4.7. Likelihood to Recommend AI Platforms

When the respondent was asked whether he would recommend AI-powered learning platforms, 41.2% responded that he would be likely and 32.4% that he would be very likely to do so. Approximately 23.5% was

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neutral, 2.9% unlikely, which means that the willingness to recommend AI tools to learn English was positive but hesitant.

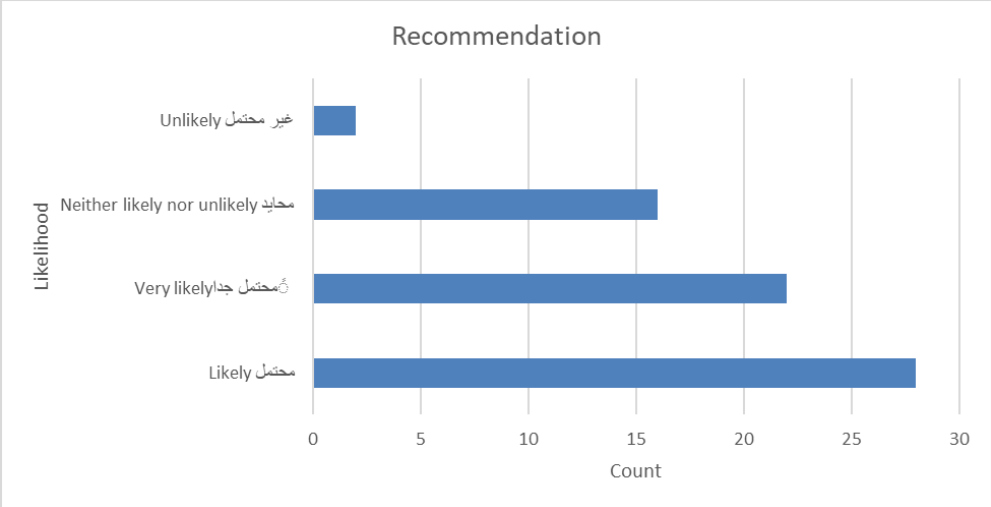

Figure 5: Students' Likelihood to Recommend AI Platforms

In general, the majority of learners were willing to encourage AI usage, but a minority of them were sceptical and referred to various issues, such as reliability, ethical concerns, or little personal experience.

4.8. Summary of Major Findings

The results show that Saudi EFL learners are very conscious of the language technologies that are AI-powered and inconsistent in their usage. The most popular services were ChatGPT, Duolingo, and Grammarly, which mainly assist in reading, vocabulary, and writing practice. Students had moderately positive attitudes, as they saw the benefits of AI in flexibility, activity, and efficiency of learning, but the level of confidence in its independent use was low. Overreliance, lack of Arabic functionality, lack of privacy, and lack of training were common challenges. In spite of these obstacles, the desire to recommend the use of AI tools was expressed by the majority of the participants, which is cautious optimism and an increasing inclination towards using AI in Saudi English language education.

5. Discussion

5.1. Overview of Findings

The research found that Saudi EFL students have a high level of awareness (83.8) of tools based on AI to learn English and use them irregularly, with almost half (47.1) having an infrequent level. The lack of awareness-practice suggests that learners are not yet accustomed to the fact that AI is a part of their study routines. This gap suggests that awareness does

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not consistently turn into habitual use perhaps because of motivational factors, instructional factors, or infrastructural factors, which is also echoed in the difficulties identified by the participants. Jamshed et al. (2024a) and Alqaed (2024) also reported similar patterns: they identified an interest in AI and little integration into the classroom. ChatGPT conquered the usage, with Duolingo and Grammarly in the second place, with a preference for free, text-only tools that offer instant feedback to students. This trend indicates an early though imbalanced adoption but cannot give any conclusion as to the developmental or transitional stages due to cross-sectional design. Due to the descriptive nature of the analyses, it is necessary to apply the results as trend indicators and not as statistically tested relationships. Similarly, the effect sizes were not reported since no inferential tests were done; thus, the interpretation of practical significance was based on observed differences in means and response frequencies.

5.2. Perceptions and Attitudes toward AI (RQ1)

The perception scores (M = 3.09-3.51) of the students reflect moderate positive attitudes towards using AI-assisted learning of English. They found that AI contributes to better skills (M = 3.51) and self-paced study (M = 3.47), which are also in line with the results of Jamshed et al. (2025) and Alharthi (2024) that AI improves motivation and engagement. However, the confidence in independent use (M = 3.09) is lower, which means that the learners are in need of instruction, according to Aldawsari and Almohish (2024). Nevertheless, one should also state that internal consistency of the six-item perception scale was acceptable but modest ($\alpha = 0.75$), as it is characteristic of a short attitudinal scale that must be considered when using these perception scores.

These interpretations show that they are consistent with the concepts of TAM and not statistical testing since the research did not measure TAM constructs as independent subscales. Students perceive AI as an assistive tool and not a displacement of teachers. From a socio-constructivist view, AI can be used to support scaffolding through the provision of feedback and interaction, even though it still requires teacher mediation to provide context and cultural orientation.

5.3. Tools and Skills Usage Patterns (RQ2)

ChatGPT was the most common tool (78%), followed by Duolingo (24%) and Grammarly (12%), which is also propagated by Altamimi (2025) and Alotaibi et al. (2025). These inclinations underscore the availability, flexibility, and text-based AI tools comfortability in students. The skills most used were reading (63%), vocabulary (53%), and writing (46%), which is more of an emphasis on the receptive and written skills as opposed to oral

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communication. The low activity in terms of speaking and listening implies structural and linguistic obstacles, especially when it comes to the absence of stable speech-enabled AI applications to serve Arabic users.

The application of AI by Saudi learners seems to be more functional and academic than communicative in comparison with the global studies (e.g., Alqaed 2024). Within the framework of Vision 2030, which encourages digital competency and innovation, the extension of AI applications beyond text-based learning to interactive and multimodal applications is one of the primary developmental objectives.

5.4. Challenges and Barriers (RQ3)

A number of problems were identified by the students that are comparable to the ones described by Aldawsari and Almohish (2024) and Al Fraidan (2024), such as ethical issues, privacy, and insufficient training. Most of them confessed that they overtrusted AI feedback and saw less need to engage in self-involvement and thought processes, reflecting Alqaed (2024) and Alqaed (2024) to a large extent. The other notable drawback was related to Arabic natural language processing (NLP) errors, where AI-based software inaccurately translated and interpreted the culture, and this was also reported by Alenezi (2025).

There were also technical challenges, like poor and unreliable internet access and subscriptions. All of these barriers are signs that AI acceptance is not only subject to personal attitudes but also to institutional backing. Formal workshops, code of ethics, and digital literacy training would increase user competence and responsible adoption.

5.5. Intention to Recommend AI Use (RQ4)

The willingness of the students to recommend AI tools is an indicator of having a positive behavioural intention, which is one of the components of TAM. The levels of willingness to promote technology were confirmed because a combined 73.6% said they were likely or very likely to recommend AI to English learning. This is consistent with Jamshed et al. (2025), who concluded that teachers were also in the pro-AI camp, although with reserved optimism. The minority that was neutral or hesitant moved under the reasons of reliability and ethics, implying the point that trust and transparency will be at the heart of the long-term adoption. Generally, the advocacy of AI by students shows the rising confidence under the influence of knowledge about its limitations.

These interpretations are to be considered with caution. Since descriptive cross-sectional data were employed in the study, the interconnections between the awareness, perceptions, and usage could not be viewed as causal and developmental. The descriptive trends are very

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informative; however, they do not give evidence of temporal change, behavioural prediction and the TAM pathway testing.

5.6. Theoretical and Pedagogical Implications

It is worth mentioning that TAM was used conceptually in this study, and the model was not statistically tested because there were no independent subscales on the perceived usefulness, perceived ease of use, attitude, and behavioural intention. Thus, the analysis explains the results by the TAM themes instead of the empirical TAM testing.

These results are in line with the TAM themes, especially that perceived usefulness appears to be an influential theme, but TAM was not empirically tested in this study, so these patterns should be interpreted as conceptual rather than statistical confirmations. Students who have experienced the benefits of tangible learning also stated enhanced levels of satisfaction; this trend, however, is to be understood conceptually as opposed to being taken as a statistical validation of TAM pathways. In the meantime, the socio-constructivist theory describes the interactive quality of the AI-based learning: learners have access to the adaptive feedback provided by AI, but still need teachers to provide them with contextual clarification and motivation.

As a pedagogical principle, the incorporation of AI in blended learning is necessary. The role of AI in teaching should be seen by educators as a supplement to a conventional learning experience, where students are encouraged to be more critical of AI feedback and not become dependent on it. Responsible usage will also be developed when AI literacy and ethical consciousness are introduced to the university curriculum. Increasing the involvement and accuracy in EFL learning, the creation of localised AI systems supporting the Arabic context would positively influence EFL learning.

5.7. Connection to Vision 2030 and the Saudi Context

The results of the study are consistent with Saudi Vision 2030, which focuses on technological innovation and international competitiveness in the sphere of education. The findings indicate that Saudi students are ready to interact with AI, which is an indicator of being willing to undergo a digital transformation. Nonetheless, to meet the educational goals of Vision 2030, there are to be systematic actions: enhancing infrastructure, training educators, and encouraging equal opportunities to use AI tools.

Ministry of Education and Saudi universities can use these results to develop policies that would promote the use of AI, professional growth, and ethical conduct. Being among the first to adopt AI-based EFL education, Saudi

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institutions have an opportunity to be at the forefront of regional progress and bridge the global advances in AI with local cultural and linguistic demands.

To conclude, Saudi EFL learners view AI as a useful and adaptable learning resource and selectively apply it because of insufficient training and technical challenges. The findings validate the usefulness and ease of use as the priority focus of TAM and the collaborative nature of AI as outlined in socio-constructivism. Notwithstanding, the high willingness of learners to embrace AI will contribute to the learning aspects of Vision 2030.

6. Conclusion and Implications

6.1. Summary of Main Findings

Another area that has been addressed in the article is the awareness, perception, and application of AI-based tools to learn English among Saudi EFL learners. Results showed that the difference in awareness and usage was high: awareness levels were at 83.8%, and few people (1 in 4) reported that they used AI frequently. The most common were ChatGPT, Duolingo, and Grammarly, which assist in reading, vocabulary, and writing. Students were slightly optimistic in their attitudes, with an appreciation of flexibility and feedback, and uncertainty about using it alone. Factors that hampered the adoption were overreliance, privacy concerns, limited Arabic functionality, and the absence of training, although the majority of the students were optimistic and ready to suggest that AI be integrated more broadly.

6.2. Pedagogical Implications

The results indicate that educators need to consider AI as an auxiliary support device, but not a substitute for human teaching. The importance of AI is that it supports the independence of the learners, customises feedback, and extends the practice outside the classroom. Teachers need to find a balance between online content and instructor feedback, so that AI can complement, as opposed to substitute, interaction with the teacher and human connection.

Besides, AI literacy and ethics ought to be part of English language learning. Being responsible can be taught by teachers in workshops and guided classroom exercises where students critically examine AI outputs. Leveraging tools such as ChatGPT, Duolingo, and Grammarly on reflective activities helps build creativity, critical thinking, and digital literacy, and sets the learner up to become an ethical and competent AI-assisted learner.

6.3. Policy and Institutional Recommendations

The Saudi universities are critical of encouraging the effectiveness of AI in education. Schools ought to invest in Arabic-friendly AI solutions to overcome the language barrier and enhance the precision of the context. Creating digital literacy and AI education facilities among students and faculty

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members can improve hands-on skills, the value of ethics, and competence in the responsible use of AI. Considerate collaborative relationships among universities and technology developers would assist in the establishment of linguistically accommodating and pedagogically efficient tools. Lastly, universities ought to implement transparent ethical guidelines on privacy, plagiarism, and authorship that promote responsible innovation that is abreast of academic integrity and the digital transformation aspirations of the Saudi Vision 2030.

6.4. Limitations of the Study

Despite the valuable contribution of the study, it has a number of limitations. The undergraduate sample that consists of males alone is limited in generalizability, since female learners or postgraduate groups might have a different opinion on the same. The use of self-reported survey data presents a risk of bias in the responses, as the respondents may have over- or underreported their use of AI tools. Additionally, the cross-sectional design takes a picture of the attitudes and not a permanent change in behaviour. Future researchers are advised to take the longitudinal or mixed-method designs to develop more in-depth and time-dependent insights into the way in which perceptions change with experience. The other weakness is that the research used only descriptive statistics and this limited the possibility of studying statistical correlations between variables.

The other limitation is that the reliability of the six-item perception scale was only acceptable ($\alpha = 0.75$), and could be a consequence of low levels of consistency since the items are few. The use of longer and validated multi-item scales to establish stronger levels of internal reliability should be adopted in future research. Moreover, the four different TAM constructs were not operationalised through the perception scale, and hence did not provide the opportunity to statistically analyse TAM pathways. The validated TAM instruments should be used in the future so that the construct-level and structural analysis are possible. Inferential tests should be applied in future research in order to enhance the strength of generalisation and explanatory power. Lastly, effect sizes should also be computed in future studies so that the practical size of the relationships between variables can be made, thus allowing stronger claims.

6.5. Suggestions for Future Research

The limitations can be overcome by future studies that ought to focus on increasing the sample size to cover female learners and those belonging to various universities in Saudi Arabia. Instead, the application of mixed methods, including surveys and interviews or classroom observations, would yield more detailed and comprehensive data on the behaviour of learners and

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the practices of teachers. Longitudinal research may be conducted to determine the effects of ongoing exposure to AI on motivation, self-regulation, and the development of proficiency. Also, it is possible to conduct further research on the influence of AI on particular EFL competencies, including pronunciation, listening comprehension, or collaborative writing, where there is minimal research on the use of interactive technologies. The cross-country comparison studies in the Gulf nations would help to contextualise the experiences of Saudi learners in the regional AI learning environment.

Concluding Statement

In conclusion, AI is a great opportunity and a challenge to Saudi EFL education. AI can be used in an effective, interactive, and personalised form of language learning when applied in a way that is thoughtful. But to be successfully used, it needs guidance, critical awareness, and institutional support. The findings suggest that Saudi students are willing to use AI technologies, but the success of their application will probably be determined by their provision with proper training and culturally specific tools.

In line with Vision 2030, these research findings highlight the growing significance of AI in developing a technologically enhanced, competitive education system on a global scale. A very careful implementation of AI by considering and adhering to ethics, pedagogy, and inclusivity can help Saudi universities serve the learners more effectively as they become more independent, creative and globally competent English speakers in the changing digital world.

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