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Perceptions of EFL teachers on integrating ai tools for foundation-level English language instruction

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ABSTRACT

This study investigates how EFL teachers at the Preparatory Studies Centre (PSC) of the University of Technology and Applied Sciences - Al Mussanah (UTAS-A) perceive using AI tools for teaching English to foundation-level students. It measures the following constructs: a) teachers' preparedness and level of comfort with AI tools. b) The frequency of their use of AI tools in classroom teaching. c) The effectiveness of AI tools in teaching and learning. A descriptive approach was adopted by administering an online survey to 21 EFL teachers at the PSC. The data analyzed using Mann-Whitney and Kruskal-Wallis tests suggest no difference in teachers' perceptions regarding AI tool integration in teaching based on age, gender, experience, and teaching level. The results show that teachers felt relatively comfortable using AI for language instruction. They considered the impact of AI tools on students' language skills, vocabulary and pronunciation to be mildly constructive but this did not extend to grammar. They had relatively positive perceptions of the impact of AI tools on student engagement but viewed their impact on critical thinking skills negatively. They were more inclined to use AI for materials preparation than for assignments, grading, and providing feedback on language. The study recommends providing support and resources for teachers who may feel less prepared or uncomfortable with AI tools. The findings of the study have significant implications for stakeholders in promoting the effective integration of AI technology in language teaching practices.

Contribution/Originality: Professional development programmes enhance teachers' awareness of the latest developments in integrating AI into English language education. However, teachers' level of preparedness, predispositions and perceptions are seldom considered while planning such programmes. This study offers valuable insights for stakeholders to make informed decisions about AI integration in teacher development programmes.

1. INTRODUCTION

The application of technology, especially artificial intelligence (AI) across academia has gained momentum in the last few years. AI has been transforming modern education with the rapid advancement of technology (Wang et al., 2024). The term AI is applied to a multi-disciplinary educational field encompassing a blend of "computer science, cybernetics, information theory, neurophysiology, psychology, philosophy, linguistics and other disciplines" (Bin & Mandal, 2019). AI tools are widely applied in education including English language education (Sharadgah & Sa'di, 2022). The Preparatory Studies Centre (PSC) at the University of Technology and Applied Sciences – Al

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Mussanah (UTAS-A) expects its English as a Foreign Language (EFL) teachers to encourage active student involvement by giving them digitized learning experiences. It further expects its teachers to integrate AI tools while teaching different language skills. They are also expected to provide their students with updated online channels and platforms for classroom practice for communicative competence, critical thinking and self-earning capabilities. To meet this end, the PSC employs English language professionals from worldwide and provides them with state-of-the-art teaching facilities such as well-equipped language labs and audio visual rooms with the latest network applications. According to Khattak, Abbasi, Ahmed, and Al-Balushi (2021) the PSC claims to offer the best in English language teaching practices. It still needs to be investigated how far the teachers think themselves to be ready and how far they effectively can take on the challenge of integrating AI tools in teaching.

It has been observed that to keep up the expectations of the PSC's administration, its EFL teachers generally integrate AI tools such as ChatGPT, Elevenlabs.io (text to speech), VIDNOZ (a tool to convert text to video), PI (a free personal AI assistant), Reading Coach on Microsoft Teams, Midjourney (text to image) and many more in their teaching for different language skills. Despite the ongoing urge on the part of the teachers for integration of AI tools in their teaching, it still needs to be seen whether they have these skills in their repertoire as AI tools integration has not been part of teachers' professional development programmes of late. However, the PSC has been striving to provide opportunities for its teachers to prepare themselves for the challenge of using AI tools in their teaching.

Hence, the phenomenon of how far the EFL teachers feel themselves equipped with the requisite knowledge and confidence for integrating AI tools in their teaching needs to be investigated. Although educational institutions worldwide have started integrating AI tools into teachers' continuous professional development activities, it is significant to probe how EFL teachers perceive the need for integrating AI tools and applications into their English language classrooms. This study aims to measure teachers' perceptions of their innate confidence in using AI tools effectively in teaching, how frequently they perceive these tools need to be used, and finally, how far they think these AI tools are effective in their instructional practices while teaching different language skills besides improving students' engagement and inculcating critical thinking. Additionally, according to teachers' perspectives, it is also pertinent to probe into the phenomenon of how far these AI tools help students achieve learning outcomes, including language proficiency and effective classroom engagement in the teaching and learning process. The study also aims at highlighting significant implications for teachers' professional development programmes, policymakers and other stakeholders in promoting an effective integration of AI technology in language teaching practices.

1.1. Research Questions

The following research questions are investigated to address these objectives:
1. To what extent do EFL teachers feel prepared and comfortable using AI tools in teaching?
2. How frequently do EFL teachers use AI tools and applications in their language classrooms?
3. What are EFL teachers' perceptions of the effectiveness of AI tools in achieving student learning outcomes, language skills development and overall teaching efficiency?
4. What are the perceived affordances, limitations and ethical concerns of integrating AI tools in English language education as reported by UTAS-A EFL teachers?

2. LITERATURE REVIEW

AI-powered tools in various fields including English language education have recently gained significant attention (Iman, Arabnia, & Branchinst, 2021; Naqvi, 2020; Roll & Wylie, 2016). Artificial intelligence offers new opportunities for English language learners (Dedja, 2015). Paterson (2022) states that tertiary-level students widely use AI tools to complete their assignments and projects. Artificial intelligence helps the language learning process to be more efficient and personalized (Kasneci et al., 2023).

One of the greatest strengths of AI tools is that they provide instant feedback on student writing which enhances learner autonomy and reduces teacher workload (Fontanilla, Bautista, Lactao Jr, Villacorte, & Santos, 2023). However, English language teachers have different views about the effectiveness of integrating AI tools in language education and their level of preparedness and comfort in using the latest technology varies. El Shazly (2021) states that English as a second language teachers feel overwhelmed by the revolutionary changes in the field of artificial intelligence and some of them are not quite prepared to use AI tools for classroom instruction.

Teachers' use of AI tools depends on various factors such as institutional policies, concerns about reliability, access to resources and level of confidence and comfort in handling them. Some language teachers believe that AI tools can provide tailored responses to learners' prompts instantly (Cotton, Cotton, & Shipway, 2024). Murphy (2019) claims that advanced AI tools are quite effective when dealing with mixed-ability groups in the classroom. Academic programmes must undergo drastic reforms to integrate artificial intelligence (Tseng & Warschauer, 2023). However, many researchers are concerned about the misuse of the latest technology. Learners' free access to AI tools and widespread misuse pose a challenge to academic integrity (Alexander, Savvidou, & Alexander, 2023; Yeo, 2023).

Teachers are aware of the potential affordances of AI tools in English language education although they lack proper training (Chounta, Bardone, Raudsep, & Pedaste, 2022). Artificial intelligence can be used for various purposes in the classroom (Chen, Chen, & Lin, 2020; Gao, Tao, Wang, Gang, & Lian, 2021). Most EFL teachers acknowledge that AI chatbots are effective in teaching and learning and can significantly contribute to learners' confidence and motivation (Yang, 2022). English Language Teaching (ELT) professionals believe that AI tools are beneficial in creating classroom materials suitable for learners' interests and proficiency levels (Hartono et al., 2023). Koltovskaia (2020) states that generative AI chatbots are very effective in giving feedback on student writing. Hutauruk and Daulay (2024) report that young EFL teachers use AI tools more efficiently than senior teachers. Iyer, Karthikeyan, Khan, and Binu (2020) claim that artificial intelligence can be used to monitor student behaviour in class.

Academicians and researchers also share concerns about learners' free access to AI tools and their potential misuse (Alexander et al., 2023; Almeida, Shmarko, & Lomas, 2022; Huang, 2023). There is an urgent need for drastic educational reforms to accommodate artificial intelligence (Chiu, Moorhouse, Chai, & Ismailov, 2023; Tseng & Warschauer, 2023). Teachers and learners should have a good understanding of the moral and ethical issues of integrating artificial intelligence into education (Akgun & Greenhow, 2022). The absence of policies for monitoring AI usage may create several risks as it may keep economically poor students at a disadvantage (Miller, Katz, & Gans, 2018; Schmidt & Strasser, 2022). Some teachers are under immense pressure to use AI tools with their lessons to meet the expectations of their institutional management and learners (Chun, Kern, & Smith, 2016). ELT practitioners must keep well-informed of the latest educational tools to remain active in their field (Binu, 2021; Hockly, 2023).

Integrating AI tools in higher education institutions has become the need of the hour. Tammets and Ley (2023) found that the integration of the triangle of teacher PD programs, the design of teacher AI solutions and the long-term development of teacher professional vision enhanced their adaptive teaching skills. There should be no resistance from higher education institutions to accommodate emerging AI technologies (McGrath, Pargman, Juth, & Palmgren, 2023). The above findings indicate that higher education institutions should invest in the digitization of English language programmes and the professional development of faculty members to better equip themselves to handle AI tools in teaching and assessment.

A significant gap remains in the existing literature that examines EFL teachers' perceptions regarding the effectiveness of artificial intelligence in teaching and learning although there have been a lot of studies in recent years about the integration of AI tools in English language education. Most previous studies highlight the advantages and limitations of generative chatbots and generalize findings across different educational landscapes

without considering the experiences and views of classroom practitioners. AI has the potential to shape the future of EFL instruction (Alshumaimeri & Alshememry, 2023; Moybeka et al., 2023; Zulkarnain & Yunus, 2023). Technology breakdowns, limited capabilities and fear are the major challenges for using AI tools for teaching and learning English (Crompton, Edmett, Ichaporia, & Burke, 2024).

Considering the challenges teachers face due to the absence of policies and institutional guidelines for AI usage is essential for implementing this modern technology in classroom settings (Fontanilla et al., 2023). There has not been enough research on the value of providing professional training to equip EFL teachers with the tools and strategies needed for effective classroom instruction. Therefore, the current study aims to address this gap by presenting a more comprehensive understanding of how EFL teachers perceive the integration of AI tools in teaching and learning.

3. RESEARCH METHODOLOGY

3.1. Research Design

As the main objective of this study was to investigate the perceptions of EFL teachers at the PSC, a descriptive research design was used. The main tool used for the current research was an online survey that included both closed-ended questions to collect quantitative data and open-ended questions to obtain qualitative data (Creswell & Plano Clark, 2018). This questionnaire was administered on Microsoft Forms, an integrated surveying tool offered by Microsoft 365 for educational institutions including UTAS-A.

3.2. Population

Convenience sampling was used to reach out to the participants of this study because of the voluntary basis of most Professional Development (PD) events at the PSC of UTAS-A. The questionnaire was sent to the entire EFL faculty, inviting voluntary participation prior to the commencement of the AI training workshops and 21 teachers responded. Table 1 provides more detailed information considering their gender, age, teaching experience, and the level taught in the spring semester of the academic year 2023-24.

Table 1. Population description.

Gender	Freq	Percent	Age range	Freq	Percent	Experience (In years)	Freq	Percent	Level taught	Freq	Percent
Male	6	28.6	20-30	4	19.0	Below 5	4	19.0	Level 1	4	19.0
Female	15	71.4	31-40	8	38.1	6-10	2	9.5	Level 2	2	9.5
			41-50	7	33.3	11-15	6	28.6	Level 3	5	23.8
			50+	2	9.5	16-20	5	23.8	Level 4	9	42.9
						20+	4	19.0	Post foundation	1	4.8
Total	21	100.0	Total	21	100.0	Total	21	100.0	Total	21	100.0

3.3. Instrument

A questionnaire with three parts was designed to gather insights into the teachers' perceptions about the comfort, frequency and effectiveness of using various AI tools for English language teaching. Materials development for reading, writing, speaking and listening skills as well as creating assignments were the focus of the first part of the questionnaire. A five-point Likert scale was employed to ascertain the frequency of using AI tools which ranged from "never" to "very frequently". To maintain a homogeneous understanding of the adverbs of frequency, some of them were defined as follows: "rarely" (one or two times per semester), "occasionally" (three or four times per semester), "often" (between five to ten times per semester), and "very frequently" (more than ten times per semester).

Part two of the survey sought to reveal the participants' views on the impact of these tools on their teaching effectiveness, student engagement and learners' language proficiency including receptive and productive skills as

well as language components such as grammar, vocabulary and pronunciation (see Appendix 1). The items in the questionnaire were recoded into three key constructs: a) preparedness and level of comfort with using AI tools in teaching English language skills. b) Frequency of use of AI tools in classroom teaching. c) The effectiveness of AI tools in teaching and student learning. The last question in part two attempted to investigate the PSC EFL teachers' attitude towards the impact AI tools may have on the students' critical thinking skills.

To assess the instrument's content validity, it was submitted to a senior member of PSC staff to obtain expert review and feedback. The expert evaluation contributed to the comprehensiveness and relevance of the final survey items. The reliability of this instrument was calculated by SPSS and its Cronbach's alpha figure was determined as 0.82 (see Table 2).

Table 2. Reliability statistics.

Cronbach's alpha	No. of items
0.828	19

The last part of the survey was comprised of three open-ended questions designed to find out reasons, concerns or hesitations and suggestions teachers may have for integrating AI tools in their teaching practices.

4. FINDINGS AND DISCUSSION

4.1. Statistical Measures

The study aimed to uncover potential disparities among EFL teachers in their perceptions of AI usage in teaching, considering variables such as age, gender, teaching experience and proficiency levels of teaching. Considering the ordinal nature of the data, the non-parametric test of Mann-Whitney was used for the binary variable of age. However, other variables including age, teaching experience and proficiency levels of teaching were analysed using the Kruskal-Wallis test as they are categorical variables with more than two groups. The data was statistically analysed using Statistical Product and Service Solutions (SPSS) V.27 which allowed for a comprehensive examination of how these demographic factors might influence teachers' perspectives on integrating AI tools in teaching different English language skills.

4.2. Findings from Closed-Ended Questions

Table 3 outlines the mean and standard deviation of the three constructs of level of comfort, frequency of AI use and effectiveness perception.

Table 3. Descriptive statistics.

Three constructs	N	Mean	Std. deviation
Level of comfort	21	4.190	0.602
Frequency of AI use	21	2.059	0.573
Effectiveness perception	21	3.414	0.512

The level of comfort enjoys the highest mean value i.e., 4.19 which suggests that on average, participants reported a relatively high level of comfort with using AI tools. However, this comfort was not manifested in the frequency of using such tools. The mean value of 2.05 suggests that on average, participants reported a relatively low frequency of AI use. As for the effectiveness of using AI tools, teacher-participants' mean value of 3.41 suggests that on average, they perceive AI to be moderately effective. Moreover, standard deviation values of 0.6, 0.57 and 0.51 respectively indicate that the respondents' attitudes were relatively similar and clustered around the mean score for each construct.

The data was further analysed to measure the teachers' perceptions regarding each construct. Here is a detailed interpretation of what teachers perceive about the use of AI tools in detail:

4.2.1. Teachers' Level of Preparedness and Comfort for Using AI Tools

The teachers were asked about their perception of being prepared and having the desired comfort level in using AI tools. The following tabulated data was obtained after statistically analysing the data using SPSS V.27.

Table 4. Teachers' level of preparedness and comfort.

Likert scale	Frequency	Percent	Valid percent	Cumulative percent
1. Very uncomfortable	0	0	0	0
2. Somewhat uncomfortable	0	0	0	0
3. Neither	2	9.5	9.5	9.5
4. Somewhat comfortable	13	61.9	61.9	71.4
5.Very comfortable	6	28.6	28.6	100.0
Total	21	100.0	100.0	100.0

Table 4 shows that 2 participants comprising 9.5% of the valid responses indicated that they are neither prepared nor comfortable with the use of AI tools while 13 participants representing 61.9% of the valid responses, reported feeling somewhat comfortable with the use of AI tools in their teaching. On the other hand, six participants making up 28.6% of the valid respondents stated that they were quite comfortable using AI tools in their teaching language skills at the PSC.

From this data, it seems that most teachers who voluntarily took part in this study feel, at least, somewhat comfortable with the use of AI tools in their language skills teaching at the PSC. Similarly, there seems to be a notable number of teachers who reported feeling very comfortable. However, some participants think they were neither prepared nor comfortable representing a smaller fraction of the total.

The data also suggests that many teachers feel confident in their preparedness and comfort while there may still be room for improvement or support for those who feel less so. From this data, it also appears that the teachers who willingly responded to this questionnaire already might have enough background knowledge of the AI tools and might have used these quite often in their classes.

4.2.2. Frequency of Using AI Tools for Teaching Different English Language Skills

In the second part of the questionnaire, EFL teachers at the PSC were surveyed regarding the frequency of using AI tools in teaching different language skills. The data obtained from the questionnaire underwent descriptive analysis to ascertain usage frequencies. The EFL teachers at the PSC were presented with a Likert scale consisting of five options: "Never", "rarely" (one or two times per semester), "occasionally" (three or four times per semester), "often" (between five to ten times per semester), and "very frequently" (more than ten times per semester) to gauge the frequency of AI tools usage. This scale helped us understand how much teachers use AI tools.

The EFL teachers at the PSC were surveyed about their frequency of using AI tools for class preparation or instruction before attending Professional Development (PD) training workshops. The descriptive statistics in Table 5 indicate that materials development was the primary function of AI tools sought after by participant teachers. Notably, preparation for teaching skills, though not high, was more prevalent than other teaching aspects such as assignment creation, grading, and providing feedback on language. Reading materials development had the highest mean score of 3.00 indicating occasional AI assistance (i.e., three to four times per semester). It is worth noting that EFL teachers at the PSC and students receive centralised course books and supplementary materials and are expected to follow the detailed delivery plan provided by the university head office. Considering this, three to four times per semester can be regarded moderate. However, writing, listening, and speaking skills fell between 2 and 3

on the scale, while other aspects, except for creating assignments, ranged between 1 (never) and 2 (rarely - one or two times per semester). This suggests that the PSC English language teachers at UTAS-A were generally hesitant to use AI tools for materials preparation and rarely employed them for other language teaching aspects. Moreover, a standard deviation value above 1 in most categories suggests less consistency and more diversity in AI tool usage frequency among teacher participants.

Table 5. Mean frequency of using AI tools.

Different aspects of teaching and assessment	N	Min.	Max.	Mean	Std. deviation
Frequency of AI in reading materials	21	1	5	3.00	1.140
Frequency of AI in writing materials	21	1	5	2.48	1.209
Frequency of AI in listening materials	21	1	5	2.43	0.978
Frequency of AI in speaking materials	21	1	4	2.19	1.030
Frequency of AI in creating assignments	21	1	4	2.14	1.014
Frequency of AI in giving automated feedback to spoken language	21	1	4	1.67	1.065
Frequency of AI in giving feedback to written language	21	1	2	1.33	0.483
Frequency of AI in grading assignments	21	1	3	1.24	0.539

The data from the above tables reveal interesting patterns in the PSC EFL teachers' use of AI tools across different aspects of teaching and assessment. Teachers' low-frequency use of AI tools to grade students' assignments may have some potential implications. First, it may indicate that teachers perceive grading assignments as requiring more objective human judgment and feedback, so they may be reluctant to leave it to AI tools to do it for them. Second, it could imply a lack of trust or familiarity with AI-based grading systems among teachers leading them to rely more on traditional grading methods. However, the higher frequency of AI tools for reading materials may indicate that the EFL teachers at the PSC find AI tools relatively more useful in reading lessons.

4.2.3. Perceived Effectiveness of AI Tools in Teaching and Learning

The EFL teachers at the PSC were asked about their perception of the effectiveness of AI tools in their teaching and students' involvement in the process. The following descriptive statistics were obtained after analysing the data:

Table 6. Language proficiency and students' engagement.

Teachers' perceptions	N	Mean	Std. deviation
I believe AI tools have enhanced my teaching effectiveness.	21	3.90	0.625
Using AI tools does not contribute to student engagement.	21	2.48	0.873
Using AI tools does not improve students' speaking proficiency.	21	2.62	0.805
Using AI tools improves students' pronunciation.	21	3.52	0.750
Using AI tools improves students' listening comprehension.	21	3.62	0.740
Using AI tools improves students' reading comprehension.	21	3.67	0.730
Using AI tools improves students' writing proficiency.	21	3.52	0.928
Using AI tools enhances students' vocabulary retention rates.	21	3.62	0.805
Using AI tools has no effect on students' grammar range and accuracy.	21	3.00	0.894
Using AI tools reduces students' critical thinking skills.	21	3.62	0.921

These descriptive statistics in Table 6 provide insights into teacher-participants' perceptions of various factors related to language learning or teaching. On average, teacher-participants believed that AI tools enhance overall effectiveness in language learning and teaching with a mean of 3.90 and a standard deviation of 0.625. The relatively low standard deviation suggests that responses are clustered closely around the mean indicating a consensus among teacher participants.

The reverse-worded statement about whether using AI tools leads to a higher level of student engagement received a mean of 2.48 and a standard deviation of 0.873. On average, the proximity of the mean value to 2 (disagree) suggests that the teacher-participants do believe AI tools can contribute to student engagement although there is variability in responses. A reverse-worded statement was used which received a mean of 2.62 and a standard deviation of 0.805 to measure the PSC EFL teachers' impression of AI tools and students' improved speaking proficiency. A slightly closer mean to "neutral" (3) than "disagree" (2) suggests that EFL teachers at the PSC leaned towards disagreement and therefore, felt AI tools might increase students' speaking proficiency. However, there were more uncertainty and mixed opinions about this statement. Regarding the PSC EFL teachers' views on other variables namely improved pronunciation, improved listening comprehension, improved reading comprehension, improved writing proficiency and vocabulary retention, the data gave means ranging from 3.52 to 3.67 indicating that teacher participants on average tended to agree though not strongly that using AI tools can result in improvement in these aspects of language learning and teaching. The standard deviations ranging from 0.730 to 0.928 suggest some variability in responses but generally, there was a consensus among the participants.

Considering their views on the improvements in grammar range and accuracy, a mean of 3.00 which denotes "neutral" indicates teacher-participants were fairly uncertain whether there could be improvements in grammar accuracy and range while they slightly agreed that using AI tools may reduce students' critical thinking skills. A standard deviation of 0.894 implies that there is moderate variability and no strong consensus in responses given by the participants. Finally, EFL teachers at the PSC were asked if they feel using AI tools reduces students' critical thinking skills. The results showed a mean of 3.62 which is closer to 4 i.e., "agree". The overall mean points to a general agreement that AI tools may reduce students' critical thinking skills although this value does not suggest a strong agreement. Just like the previous item, the standard deviation of 0.921 indicates moderate variability in responses meaning some respondents may have differing opinions regarding a possible negative impact of AI tools on students' critical thinking skills.

Analysing the descriptive statistics given in Table 6, PSC EFL teacher participants' perceptions of the potential impact of using AI tools on various aspects of language learning and teaching can be seen. These findings suggest that there is generally a positive inclination towards agreement with the effectiveness of AI tools in language learning and teaching. Opinions vary more widely when it comes to aspects like student engagement and critical thinking skills. This underscores the need for further exploration and understanding of how AI tools can best support various aspects of language education and the importance of considering individual differences and preferences among educators.

4.2.4. Differences between EFL Teachers at the PSC across Demographic Variables

The three constructs of level of comfort, frequency of AI use and perceived effectiveness were further investigated to determine whether there was a significant difference between the PSC EFL teachers. The Mann-Whitney test was employed for the binary variable of gender while the Kruskal-Wallis test was used for the categorical variables with more than two groups, i.e. Age, experience and level of teaching. The results of all tests failed to show any significant differences between the EFL teachers at the PSC at UTAS-A (see Tables 7-10).

Table 7. Mann-Whitney test statistics across gender.

Statistical tests	Level of comfort	Freq of AI use	Effectiveness perception
Mann-Whitney U	33.000	31.000	33.500
Wilcoxon W	54.000	52.000	153.500
Z	-1.086	-1.097	-0.902
Asymp. sig. (2-tailed)	0.278	0.273	0.367
Exact sig. [2*(1-tailed sig.)]	0.381[b]	0.302[b]	0.381[b]

Note: b. Not corrected for ties.

Table 8. Independent-samples Kruskal-Wallis test across EFL teachers' level hypothesis summary.

No.	Null hypothesis	Test	Sig. a,b	Decision
1	The distribution of level of comfort is the same across categories of level taught by a teacher.	Independent samples Kruskal-Wallis test	0.283	Retain the null hypothesis.
2	The frequency of AI use distribution is the same across categories of levels taught by teachers.	Independent samples Kruskal-Wallis test	0.398	Retain the null hypothesis.
3	The distribution of effectiveness perception is the same across categories of levels taught by teachers.	Independent samples Kruskal-Wallis test	0.773	Retain the null hypothesis.

Note: a. The significance level is 0.050.
b. Asymptotic significance is displayed.

Table 9. Independent-samples Kruskal-Wallis test across EFL teachers' experience- hypothesis summary.

No.	Null hypothesis	Test	Sig. a,b	Decision
1	The distribution of level of comfort is the same across categories of teacher's experience.	Independent samples Kruskal-Wallis test	0.778	Retain the null hypothesis.
2	The distribution of frequency of AI Use is the same across categories of teacher's experience.	Independent samples Kruskal-Wallis test	0.404	Retain the null hypothesis.
3	The distribution of effectiveness perception is the same across categories of a teacher's experience.	Independent samples Kruskal-Wallis test	0.270	Retain the null hypothesis.

Note: a. The significance level is 0.050.
b. Asymptotic significance is displayed.

Table 10. Independent samples Kruskal-Wallis test across EFL teachers' age hypothesis summary.

No.	Null hypothesis	Test	Sig. a,b	Decision
1	The distribution of level of comfort is the same across categories of age.	Independent samples Kruskal-Wallis test	0.292	Retain the null hypothesis.
2	The frequency of AI use is the same across age categories.	Independent samples Kruskal-Wallis test	0.187	Retain the null hypothesis.
3	The distribution of effectiveness perception is the same across categories of age.	Independent samples Kruskal-Wallis test	0.741	Retain the null hypothesis.

Note: a. The significance level is 0.050.
b. Asymptotic significance is displayed.

The absence of significant differences among demographic groups may indicate an ideal competitive environment for its teachers where their attitudes and practices about using AI tools remain unvaried. This finding may indicate a degree of homogeneity in teachers' perceptions across different demographic categories; it also suggests that professional development initiatives aimed at enhancing AI utilization must be tailored to individual needs and preferences rather than demographic characteristics alone.

Overall, these findings suggest that EFL teachers at the PSC tend to use AI tools in certain aspects of teaching and learning while there are areas where AI integration could be further explored and expanded to optimize language instruction and assessment practices. It also highlights the importance of providing teachers with training and support to integrate AI tools into their teaching practices effectively.

4.3. Findings from Open-Ended Questions

Three open-ended questions were posed in part three of the survey to obtain rich and detailed qualitative data that could help validate and triangulate the quantitative findings (Creswell, 2014). Most of the twenty-one EFL teacher participants in our study had provided valuable insights and personal experiences in response to these questions which illustrated their most used AI functions, concerns or hesitations and suggestions for the PSC management and PD committee.

Figure 1. EFL teachers' reasons for using AI tools in classroom practices.

Looking at the frequency of the functions used by the EFL teachers at the PSC in Figure 1, a similar tendency to use AI mostly for materials development and lesson planning can be seen. Similarly, the participants' infrequent references to critical thinking skills suggest that there might be reservations towards a positive impact on students' higher order thinking skills.

When asked if they had any concerns about using AI tools in their classroom practices, EFL teachers at the PSC primarily expressed worries about ethical issues including privacy, data security, plagiarism as well as cultural, racial and religious sensitivity of the AI generated content (see Figure 2). However, future research could further explore whether the perceptions of the teacher participants in this study are well-founded or based on speculation.
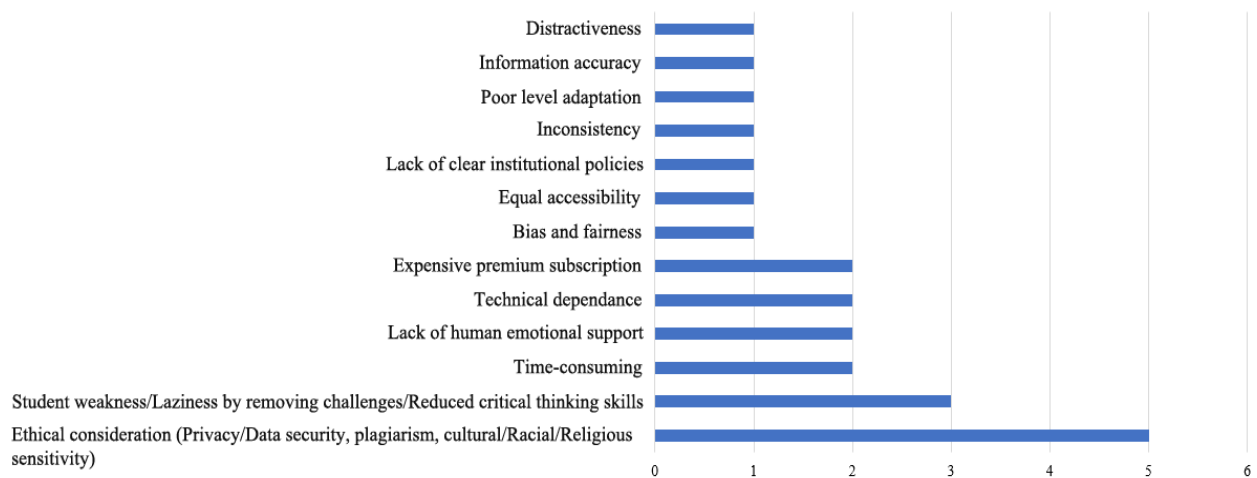
Figure 2. EFL teachers' concerns about using AI tools.

Finally, EFL teachers at the PSC were encouraged to offer some suggestions that have been represented in Figure 3. Their most frequent suggestion was to integrate AI tools to provide automated feedback on students' written work to improve efficiency and raise their awareness about their grammatical and mechanical errors. This is in line with the findings of Mohammed Ahmed Mudawy (2024) and Shang (2022) that adopting AI tools for automated feedback by EFL teachers is growing, and AI-generated feedback can improve students' writings with respect to lower-order concerns such as grammar and mechanics. However, findings from the quantitative data (see Table 5) showed that EFL teachers at the PSC quite rarely used AI automated feedback per semester (mean of 1.67 for spoken and 1.33 for written language). The infrequent use of AI tools to give feedback on written and spoken language could have significant implications for students' language learning and teacher workload. Bulut et al. (2024) argue that effective feedback is crucial for student improvement and AI tools can offer timely, personalized

feedback on language production. The low usage here may suggest teachers are missing out on an opportunity to use AI tools to help them provide their students with more efficient and targeted feedback to enhance their learning outcomes. The contrast between the desire and self-reported frequency of use stems from the concerns pointed out in Figure 2 can be further investigated in future research.

Other notable suggestions included premium subscriptions, interactive games and AI simulations to increase student motivation and engagement as well as a desire for more PD training workshops to equip the EFL teachers with the necessary skills to appreciate the benefits of AI tools fully.
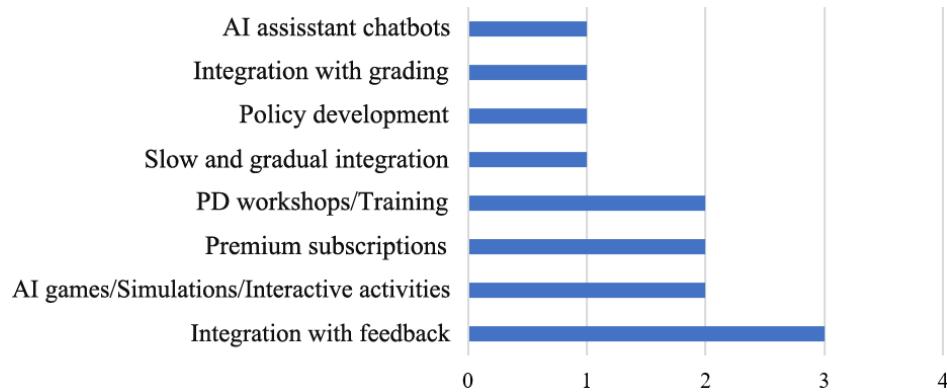
Figure 3. EFL teachers' suggestions for using AI tools.

5. CONCLUSION AND RECOMMENDATIONS

The findings of the study reveal that the PSC English teachers had a positive attitude about using AI for language instruction. However, a small section still felt somewhat unprepared and uncomfortable in utilising AI tools. Most teachers believed that integrating AI tools in English language instruction can positively impact language skills and components including listening, reading, writing, pronunciation, vocabulary retention and speaking although the same level of confidence was not expressed about speaking. The perceptions of EFL teachers at the PSC also indicated a tendency towards expecting increased student engagement but decreased critical thinking skills. Finally, respondents are generally ambivalent or uncertain about the impact of AI tools on grammar range and accuracy.

Although EFL teachers at the PSC generally perceive AI tools to be both easy to use and relatively effective, their self-reported frequency of using AI tools is not high. This infrequent use begs the question of whether their perceptions are completely accurate. Other possible hindrances could be lack of necessity, technical support or motivation which can be further explored in the future.

While some teachers appreciate the effectiveness of AI tools in engaging learners in various language activities, others point out the potential decline in human interaction due to the excessive use of artificial intelligence. Other worrisome issues included laziness, lack of challenge, ethical considerations and privacy concerns. Most used purposes were for materials development and lesson planning while most requested changes were premium subscriptions, automated feedback integration and professional training workshops.

The findings call for further research and action to maintain a balanced approach to integrating AI tools into English language education. Higher education institutions should ensure teachers are well-trained and supported in using AI tools for language instruction. The training given to teachers on using artificial intelligence should not be limited to the technical side. Instead, it should cover the pedagogical and ethical aspects of integrating AI tools into language education. Besides, there should be proper policies and guidelines for teachers and students on using AI tools. Teachers should be encouraged to collaborate to share resources, adapt materials to cater to learners' individual needs and discuss any concerns about AI usage in the classroom. In addition, there should be ongoing

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research to recognise best practices, identify and address challenges and adopt new technology to optimize student learning without compromising academic integrity.

In conclusion, the stakeholders must encourage teachers to provide continuous feedback on AI tools' usability, effectiveness and relevance to their teaching practices. This feedback can inform AI developers and policymakers about areas for improvement and guide future advancements in AI technology for language education.

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APPENDICES

Appendix 1. PSC EFL teachers' perceived impact of AI use (Pre-PD workshops).

Section 1: This questionnaire is part of a study that aims to analyse the impact of teacher training sessions on using AI tools in ELT under the Professional Development Committee of the Preparatory Study Centre (PSC) at the University of Technology and Applied Sciences, Al-Mussanah (UTAS-A). Your participation in this study is entirely voluntary and anonymous. By completing this questionnaire, you consent to your responses being used for research purposes only. Please note that you may withdraw your consent at any time. Do you agree to participate in this study? Yes No

Section 2: Demographics

I. Level you are teaching this semester: Level 1 / Level 2 / Level 3 / Level 4 / Post Foundation

II. Years of experience (in years): below 5 / 6-10 / 11-15 / 16-20 / 20+

III. III. Gender: Male / Female

IV. Age: 20-30 / 31-40 / 41-50 / 50+

V. How comfortable are you in using AI tools in your teaching?

a. Very comfortable

b. Somewhat comfortable

c. Neither comfortable nor uncomfortable

d. Somewhat uncomfortable

e. Very uncomfortable

Section 3- Part 1. Frequency of AI use.

	Please indicate the frequency of your AI use for the following purposes. To maintain consistency, please consider "Rarely" (One or two times per semester), "Occasionally" (Three or four times per semester), "Often" (Between five to ten times per semester), and "Very frequently" (More than ten times per semester).	Never	Rarely 1-2 per Sem	Occasionally 3-4 per Sem	Often 5-10 per Sem	Very frequently 10+ per Sem
1.	How often do you use AI tools in developing materials for your reading lessons?					
2.	How often do you use AI tools in developing materials for your writing lessons?					
3.	How often do you use AI tools for giving feedback to students' written language?					
4.	How often do you use AI tools in developing materials for your listening lessons?					
5.	How often do you use AI tools in developing materials for your speaking lessons?					
6.	How often do you assign speaking tasks that enable students to receive automated feedback?					
7.	How often do you use AI tools for creating assignments?					
8.	How often do you use AI tools for grading assignments?					

Section 3-Part 2. EFL teacher's perceptions about AI tools.

A	**Please rate your agreement with the following statements using the Likert scale (1 = Strongly disagree, 5 = Strongly agree)**	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
9.	I believe AI tools have enhanced my teaching effectiveness.					
10.	Using AI tools does not contribute to student engagement.					
11.	Using AI tools does not improve students' speaking proficiency.					
12.	Using AI tools improves students' pronunciation.					
13.	Using AI tools improves students' listening comprehension.					
14.	Using AI tools improves students' reading comprehension.					
15.	Using AI tools improves students' writing proficiency.					
16.	Using AI tools enhances students' vocabulary retention rates.					
17.	Using AI tools has no effect on students' grammar range and accuracy.					
18.	Using AI tools reduces students' critical thinking skills.					

Section 4: Open-ended Questions

1. Why do you use AI tools in your classroom practices? (Here are a few reasons you may have in mind: Lesson planning, materials development, immediate feedback, conversational practice, pronunciation practice, personalized language learning content, immersive experiences through simulations of everyday situations, etc.

2. Do you have any specific concerns or hesitations about using AI tools in the classroom?

3. Do you have any suggestions for integrating AI tools for teaching and learning?