Teachers' Perceptions in Using Artificial Intelligence (AI) in ESL Classrooms

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Abstract
To achieve the fourth goal of the Sustainable Development Goals (SDGs), Quality Education, artificial intelligence (AI) is gaining interest in understanding student behaviour and evaluating student performance. Yet, there is insufficient integration of AI tools in Malaysian schools as they remain underutilised in the teaching and learning process. Teachers' perceptions determine the use of AI and how it is used in classrooms. Insightful information from the teachers could be used to assist in the implementation of AI in classrooms. Therefore, this study aims to investigate teachers' perceptions towards the use of AI in ESL classrooms. A survey was conducted with 66 participants to get data on their perceptions of using AI in their classrooms. The findings show that participants generally have positive perceptions of using AI with a significant degree of uncertainty in fully embracing AI in ESL classrooms. Teachers generally favour using AI in their lessons as they perceive AI to be useful and have the intention to use it. They also view AI to be moderately easy in its application as they lack the experience to have more confidence using it. Understanding teachers' perceptions could assist in promoting a continuous and effective use of AI in ESL classrooms.
Keywords: English as a Second Language (ESL), Artificial Intelligence (AI), Artificial Intelligence in Education (AIEd), Teachers' Perceptions, Teachers' Perspectives

Introduction
Quality Education, the fourth goal of the Sustainable Development Goals (SDGs) emphasises on ensuring an inclusive and equitable education while encouraging lifelong learning opportunities for everyone. (Garcia et al., 2020). According to Chen et al. (2020), artificial intelligence (AI) mimics human intelligence through learning, cognitive abilities, adaptability and decision-making. It has been embraced and applied in education albeit in different ways. The full integration of teaching and learning is achieved through the use of AI in education and thus created opportunities for a teaching and learning reform (Huang et al., 2021). In order to meet and contribute to SDG4, artificial intelligence (AI) is gaining interest in comprehending student behaviour and evaluating student performance. AI promises

considerable potential as it has begun to develop innovative teaching and learning strategies in education to improve learning (Jokhan et al., 2022).

The Malaysian Education Blueprint 2013-2025 aligns with the goals of SDG4 and the national curriculum objectives as it aims to prepare upcoming generations to actively participate in fostering sustainable economic, social, and environmental progress. One of the six student aspirations in the blueprint is to enhance proficiency in the English Language which functions as an international language of communication (Zakaria et al., 2020). It is given the upmost priority worldwide in meeting the requirements of the 21st century skills in which every individual is expected to be a 'global player' and not being left out (Rajendran & Yunus, 2021) English Language proficiency is vital in reaching the objective of SDG4 and its importance is highlighted in the Roadmap for English Language Education 2015-2025 (Ramalingam et al., 2023).The integration of technology is perceived as a notable instructional tool in language classrooms due to its widespread usage and easy accessibility, which enhances the effectiveness of teaching and learning. It has undoubtedly led the way in language teaching in Malaysia (Pragasam & Sulaiman, 2023). Artificial intelligence (AI) has the ability to transform conventional teaching and learning approaches especially in the context of English as a Second Language (ESL) classrooms. (Sharifuddin & Hashim, 2024).

Artificial intelligence is found to be useful for both teachers and students. The work for teachers is made more convenient as it aids teachers by robotising continuous instructions for students and reducing the time and effort for teachers to evaluate the work of students or grading tests. Learners get personalised learning as AI is capable of gauging their learning speed and providing learning materials appropriate for the learners.(Singh et al., 2021). According to Woo and Choi (2021), learners have shown progress in speaking, listening, reading, pronunciation, grammar and vocabulary skills/knowledge after utilising AI tools. These tools were also perceived to be effective for English language learning.

However, the implementation of AI tools in Malaysian schools has been inefficient. They remain underutilised in the teaching and learning process (Zulkarnain & Yunus, 2023). According to Hashim et al. (2022), there is insufficient information on implementing technology and artificial intelligence in education in Malaysia. It is necessary for teachers to be technologically literate before incorporating AI tools in their classrooms as they wouldn't understand their usefulness otherwise. (Zainuddin et al., 2024). Teachers' perspectives on technological integration significantly impact their willingness to incorporate it into their teaching practices and monitor its implementation in classrooms. Their perceptions could either encourage or deter them from incorporating technology in their lessons as teachers determine how and where such technology is used by students (Jerry and Yunus, 2021; Sumakul et al., 2022). This study is significant as it will provide insightful information on teachers' perceptions which is vital for facilitating the development, implementation and adoption of AI technologies in ESL classrooms. It is essential to comprehend and address teachers' perceptions in order to ensure the successful and ethical integration of AI in education.

The studies on teachers' perceptions of utilising AI in Malaysia are limited (Zulkarnain & Yunus 2023; Zainuddin et al., 2024). The available studies mostly focus on general usability issues and less emphasis is placed on researching teachers' perceptions of using AI in ESL

classrooms. (Kee & Kabilan, 2021). This highlights the need to study and understand teachers' perceptions. Filling this research gap should shed light on why AI is never utilised to its full potential**.** This study enables teachers to express their reservations and what they stand to gain from AI being integrated into their classrooms. Their views are significant as they could help identify key barriers that could prevent its full utilisation such as a lack of training, experience or aversion to technology. The study would provide first-hand empirical data on teachers' perceptions of AI in ESL classrooms that could assist in developing teacher training programmes and provide them with more relevant tools and support, which could foster a positive and informed approach in utilising AI**.** Understanding their reservations will serve as a starting point for further research on seamlessly integrating AI without alienating teachers who are out of touch. Hence, this study aims to investigate teachers' perceptions towards the use of AI in ESL classrooms in accordance to this research question below.
1) What are teachers' perceptions of using artificial intelligence in ESL classrooms?

Literature Review
This section explains the key literature that links to this study, which are Artificial Intelligence in ESL classrooms, previous studies of teachers' perceptions of AI in ESL classrooms and Technology Acceptance Model (TAM).

Artificial Intelligence in ESL Classrooms
Artificial intelligence (AI) provides personalised learning for the students which is an ideal benchmark for modern teaching as it offers prompt and highly individualised assistance. AI is able to gather data on the students' learning progress which forms a basis to model students' individual learning curves and adjust their learning content accordingly (Pokrivcakova, 2019). Personalised learning includes providing instant feedback for both students and teachers. According to Mahapatra (2024), ChatGPT is able to improve undergraduate ESL students' writing skills when used as a tool to provide formative feedback.

Besides providing instant feedback, AI is utilised as virtual assistants (VA) which are useful in providing support to students as they aid students in organising the study process and bolster students' motivation and interest in the study process (Gubareva & Lopes, 2020). According to Rahman and Tomy (2022), VA is found to be effective in improving oral fluency of ESL students. AI also offers automated assessment which benefits teachers by saving their time and effort from manually evaluating their papers as it automatically marks the correct ones and flags the incorrect answers. Automated assessments not only assess the correctness of answers but also offer constructive criticism and direction to assist students in their learning process (Akgun & Greenhow, 2021). Saito et al. (2024) studied on the automated assessment in speaking and is found to be efficient in evaluating phonological fluency and accuracy. Crossley et al. (2019) found that precision of errors flagged are found to be reliable despite many significant errors being missed out.

Despite having a myriad uses and benefits, there are challenges in using artificial intelligence in ESL classrooms. One concern is the overreliance on AI which could impede students' critical thinking and creativity in completing tasks (Trivedi, 2023). Additionally, students misuse AI by taking the opportunity to generate their assignments using AI tools like ChatGPT which tarnishes the technology.(Alharbi & Khalil, 2023). There are different forms of AI that can be utilised fully to facilitate the teaching and learning process of ESL.There should

be a balance between utilising AI to its full potential and reducing risks associated with AI when integrating AI into ESL lessons.

Previous Studies of Teachers' Perceptions in using AI in ESL Classrooms
The study in An et al. (2022) showed that their participants possess adequate knowledge of artificial intelligence (AI). According to Chounta et al. (2021), it is found that a deeper understanding of AI enables a smooth implementation of AI in classrooms. Teachers decide the best option for their students and by having sufficient knowledge and positive perceptions of AI increase the chances of AI being integrated into their lessons as teachers who lack knowledge avoid using AI tools. Chounta et al. (2021) also stated that AI is able to assist teachers in organising their content and schedule of their lessons, retrieving learning materials and grading students' homework. The teachers in Har (2023) mentioned that AI eases their burden as it reduces their workload and enables them to concentrate with other tasks.

According to Yunus and Abdullah (2011), motivating students is a crucial factor in the students' learning process. Artificial intelligence is perceived to motivate students in the classroom. Yoon et al. (2023) reported that teachers perceive the integration of AI in English teaching and learning to encourage active participation of students in the classroom, accelerate their communication skills and encourage self-directed learning. In Kee and Kabilan (2021), English teachers stated that students became more confident and proactive in using English when interacting with chatbots. Students were motivated to actively participate in exploring and integrating knowledge. Inaccurate feedback that were encountered would be cross checked and reflected by the students.

In contrast, Firdaus and Nawas (2024) and Maharani et al. (2023) reported that the some teachers are reluctant to use AI because they felt that using AI in the classroom is a form of distraction. The teachers in Firdaus and Nawas (2024) expressed that one classroom consists of a large number of students and one teacher is insufficient to keep an eye on every student when they are using AI in their lessons.

Personalised learning is viewed to be beneficial in the students' learning process (Alharbi & Khalil, 2023; Hazaymeh et al., 2024).According to Hartono et al. (2023), teachers recognised that AI has provided alternatives in their instructional approaches with personalised instructions and facilitated differentiated learning in the classroom. It is concurred that the use of AI for personalised language learning improved time efficiency and has the potential to reduce teachers' workload (Abrar, 2023).

Some teachers perceive that there will be an inadequate human interaction due to the overreliance of AI in which they emphasise that human interaction and traditional learning should be maintained. It is also highlighted that there should be a balance between the use of AI and traditional teaching and learning approaches (Alharbi & Khalil, 2023; Hartono et al., 2023).

In An et al. (2023) and Zainuddin et al. (2024), the teachers found that it is easy to incorporate AI into their lessons. Zainuddin et al. (2024) further added that AI is user-friendly, which makes it easier for teachers to adapt and integrate AI into their lessons. The teachers

in Pokrivcakova (2023) showed positive attitudes in integrating AI into their lessons and the study by An et al. (2022) found that the teachers have strong behavioural intention to use AI.

Teachers' perceptions play an important role to ensure its continuous use. As the use of AI technologies have positive perceptions, negative perceptions remain a threat that could hinder teachers from fully integrating AI in their lessons. Hence, future research is required to mitigate these problems to ease the implementation of AI in classrooms.

Technology Acceptance Model (TAM)
The technology acceptance model (TAM) offers an insightful description of the mechanisms by which design decisions affect user acceptance and should be helpful in practical situations for forecasting and assessing user acceptance of information technology (Davis, 1993). Perceived usefulness refers to the tendency of people to use the application depending on their beliefs on how much help it provides to perform their job better. The perceived usefulness of a system will be high if the user believes there is a positive relationship between its use and performance. Perceived ease of use refers to the applications that are believed to be useful by the users but may perceive the systems to be too difficult to use. Users may require more effort in using the application more than performance advantages of use. Users are more inclined to use an application over the others when it is believed to be easier to use (Davis, 1989).

Attitude towards use is the degree to which an individual believes that engaging in the behaviour is positive or negative. Behavioural intention refers to an individual intends to act in a particular way without making any assurances (Zainaldeen, 2020). Attitudes towards using technnology affects the behavioral intention to utilise a certain technology. The behavioural intention of use is also directly affected by the perceived usefulness of the technology. The behavioural intention will then predict the actual use of the technology (Abdullah &Ward, 2016). The purpose of using TAM in this study is to get an idea on teachers' perceptions by understanding perceived usefulness and perceived ease of use in order to understand attitudes towards using AI and their intent to use it.

Methodology
This section presents the research design, sample, instrument used, the validity and reliability and data collection and analysis.

Research Design
This study employed a survey research design. Surveys are helpful in determining important beliefs and attitudes of the participants in a study (Creswell, 2012). Hence, the survey was carried out with the aid of a questionnaire to get a general understanding of English teachers' perceptions of using AI in classrooms.

Research Sample
Convenience sampling is the sampling method used in this study. In convenience sampling, the participants are selected from the target population based on the ease of access (Noor et al., 2022). The selection also involves the availability of the participants and their willingness to take part (Wang & Cheng, 2020). The survey was uploaded on the "Kami Guru Malaysia" Facebook page and only 66 participants from primary and secondary schools took part due to

time constraints. Further discussion or analysis combined both primary and secondary school teachers.

Research Instrument
This study used a structured questionnaire for data collection. The questionnaire was adapted from the journal article, Technology Acceptance Model and E-learning by Masrom (2007) and the items selected were also based on the extensive literature review conducted for this study. The questionnaire included five constructs which were Familiarity with AI, Perceived Usefulness, Perceived Ease of Use, Attitude Towards Use and Behavioural Intent. There were 19 items in the questionnaire. Each item in the questionnaire utilised a 5-point Likert Scale which consisted of "Strongly Disagree", "Disagree", "Neutral", "Agree" and "Strongly Agree".

Validity and Reliability
According to Tavakol and Dennick (2011), the acceptable Cronbach's Alpha is considered to be from 0.7-0.95. An acceptable Cronbach's alpha would mean that the items in the same construct are internally consistent which shows that it accurately measures the construct studied. The Cronbach's Alpha calculated for each construct were 0.702, 0.911, 0.733, 0.928 and 0.863 which are within the range of an acceptable Cronbach's Alpha.

Data Collection and Data Analysis
The questionnaire was on Google Forms and uploaded to the Facebook page "Kami Guru Malaysia". The participants were informed of the purpose of the study and were also notified of the confidentiality of their responses. The questionnaire was uploaded four times to the "Kami Guru Malaysia" page in three weeks. The data collected from the questionnaire was inserted into the Statistical Package of the Social Sciences (SPSS) software. SPSS computed the data on the constructs studied which were Familiarity with AI, Perceived Usefulness, Perceived Ease of Use, Attitude Towards Use and Behavioural Intention according to descriptive statistics (mean, percentage and standard deviation). The mean scores were interpreted according to the mean score interpretation table by Nunnally & Bernstein (1994).

Mean Scale	Level
4.01 – 5.00	High
3.01 – 4.00	Medium High
2.01 – 3.00	Medium Low
1.00 – 2.00	Low

Figure 1: The mean score interpretation table by Nunnally & Bernstein (1994)

The mean scores of 1.00-2.00 is considered low with 2.01 -3.00 is considered to be medium high. The mean scores of 3.01- 4.00 is medium high while 4.01-5.00 is considered high.

Results

The results below present participants' demographics, teachers' familiarity with AI, perceived usefulness, perceived ease of use, attitudes towards using AI and behavioural intention of using AI.

Participants' Demographic Information
The table below shows participants' demographics such as their age, gender, school and years of teaching experience.

Table 1
Distribution of Participant Demographics

Demographics	Description	Frequency	Percentage (%)
Age	21-30	10	15.2
	31-40	14	21.2
	41-50	19	28.8
	51-60	23	34.8
	Total	**66**	**100.0**
Gender	Male	8	12.1
	Female	58	87.9
	Total	**66**	**100.0**
School	Primary	36	54.5
	Secondary	30	45.5
	Total	**66**	**100.0**
Years of Teaching Experience	0-10	17	25.8
	11-20	19	28.8
	21-30	21	31.8
	31 and above	9	13.6
	Total	**66**	**100.0**

Table 1 shows a distribution of the demographics of participants. The age of the participants ranged from age 21 until the age of 60 as it is the statutory retirement age for teachers in Malaysia. This shows that all age groups were accounted for to conduct this study. The percentage of participants from ages 21 to 30 is 15%, 21% of participants aged 31-40 while 29% of ages 41-50 and 35% of ages 51-60. Most of the participants were senior teachers from the age of 51 to 60 while the least number of participants were teachers from the age of 21-30. As for the participants' gender, there were 8 male participants at 12% and 58 female participants at 88%. The teaching field is dominated by female teachers (Abas, 2016) so this distribution is acceptable and applicable in understanding teachers' perceptions in general.

Next, the distribution of the participants' type of school shows that they are either teaching in primary or secondary schools. There is a slight difference in data with 36 teachers from primary schools at 55% and 30 from secondary schools at 45%. Further discussion or analysis combined both primary and secondary school teachers. Finally, Table 1 also presents the distribution of years of teaching experience. There were 21 participants with 21-30 years of teaching experience which made up 32% of the participants. Most of the responses were from this group of participants. This was followed by 19 participants with 11-20 years of teaching experience at 29%, 17 participants with 0-10 years of teaching experience at 26% and the least number of participants were 9 teachers with more than 31 years of teaching experience

at 14%. The data accounted for participants with years of teaching experience to fulfil the research objective.

Participants' Familiarity with AI
Table 2 Shows participants' responses on their familiarity with AI in general and education. There are 3 items presented below.

Table 2
Participants' Familiarity with AI

No	Items	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	SD
1.	I am familiar with the concept of artificial intelligence (AI) in general.	0	5 (7.6)	26 (39.4)	20 (30.3)	15 (22.7)	3.68	0.914
2.	I am familiar with the concept of artificial intelligence (AI) in education	0	9 (13.6)	25 (37.9)	20 (30.3)	12 (18.2)	3.53	0.948
3.	I have often encountered AI tools or technologies in education, even if I haven't used them personally.	0	10 (15.2)	24 (36.4)	19 (28.8)	13 (19.7)	3.53	0.980

Based on the results in Table 2, Item 1 showed a medium high mean score of 3.68(SD= 0.914), suggesting that the participants have a moderate familiarity of AI in general. A mean score of 3.68 meant that the results are leaning towards agreement of the item with 30.3% participants (n=20) agreed that they are familiar with AI in general while 22.7% participants (n=15) strongly agreed. A significant percentage of participants 39.4% (n=26) were neutral. Items 2 and 3 have the same medium high mean score (M= 3.53). A mean score of 3.53 shows moderate familiarity of AI in education. Item 2 has a slightly lower standard deviation of (SD= 0.948) than Item 3 (SD=0.980) with Item 2 providing more consistent responses than Item 3. In item 2, 30.3% participants (n=20) agreed that they are familiar with AI in education while 18.2% participants (n=12) strongly agreed while 37.9% participants (n=25) answered neutral. As for item 3, 28.8% participants (n=19) agreed that they have often encountered AI tools or technologies in education even without using them personally and 19.7% participants (n=13) strongly agreed while 36.4% participants (n=24) remained neutral.

Perceived Usefulness
Table 3 shows data on the perceived usefulness of AI. Teachers provided their views on how useful AI would be in their lessons. There are 6 items presented in the table below.

Table 3
Perceived Usefulness of AI

No	Items	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	SD
4.	I believe artificial intelligence (AI) could help me save time in preparing lessons.	0	0	17 (25.8)	25 (37.9)	24 (36.4)	4.11	0.787
5.	I believe that artificial intelligence (AI) could help save time grading students' homework.	3 (4.5)	6 (9.1)	18 (27.3)	27 (40.9)	12 (18.2)	3.59	1.037
6.	I believe artificial intelligence (AI) in education could improve student participation in classrooms	1 (1.5)	7 (10.6)	15 (22.7)	28 (42.4)	15 (22.7)	3.74	0.982
7.	I believe artificial intelligence (AI) in education could assist teachers in fulfilling learning outcomes.	0	2 (3.0)	13 (19.7)	36 (54.5)	15 (22.7)	3.97	0.744
8.	I believe artificial intelligence (AI) could help customise learning for each student.	0	3 (4.5)	24 (36.4)	24 (36.4)	15 (22.7)	3.77	0.856
9.	I believe that integrating artificial intelligence (AI) in ESL classrooms is useful in enhancing my overall teaching effectiveness.	0	2 (3.0)	16 (24.2)	31 (47.0)	17 (25.8)	3.95	0.793

Item 4 showed a high mean score of 4.11 (SD=0.787) which highly leaned towards agreement of the item in which 37.9% participants (n=25) agreed that artificial intelligence (AI) could help them save time in preparing lessons and 36.4% participants (n=24) strongly agreed. However, 25.8% participants (n=17) had a neutral view of using AI in this aspect.

Item 5 shared a medium high mean score of 3.59 (SD=1.037) which showed moderate agreement as 40.9% participants (n=27) agreed that AI could help save time grade students' homework and 18.2% participants (n=12) strongly agreed with a significant 27.3% participants (n=18) remaining neutral.

The mean scores of Items 6,7,8 and 9 are medium high at 3.74 (SD= 0.982), 3.97 (SD= 0.744), 3.77 (SD=0.856) and 3.95 (SD=0.793) respectively. The mean scores for these items also showed moderate agreement as in Item 6, 42.4% participants (n=28) agreed that artificial intelligence (AI) in education could improve student participation in classrooms and Item 7 with 54.5% participants (n=36) agreeing that artificial intelligence could assist teachers in fulfiling learning outcomes. As for Item 8, 36.4% participants (n=24) agreed that it could help personalise learning for each student. The table also shows that 22.7% participants (n=15) strongly agreed with Items 6, 7 and 8. In Item 9, 36.4% of participants (n=24) agreed that integrating artificial intelligence (AI) in ESL classrooms is useful in enhancing their overall teaching effectiveness with 25.8% of participants (n=17) strongly agreed.

Neutral responses were notably pronounced with 22.7% (n= 15) of participants for Item 6, 19.7% (n= 13) for Item 7, 36.4% (n= 24) for Item 8 and 24.2% (n= 16) for Item 9.

Perceived Ease of Use
Table 4 shows data on the teachers' perceived ease of use of AI in their classrooms. There are 3 items in the table below.

Table 4
Perceived Ease of Use.

No	Items	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	SD
10.	I believe it is easy to incorporate AI into my current teaching practices.	0	7 (10.6)	31 (47.0)	21 (31.8)	7 (10.6)	3.42	0.824
11.	I can quickly become proficient in using AI tools for teaching.	1 (1.5)	9 (13.6)	29 (43.9)	22 (33.3)	5 (7.6)	3.32	0.862
12.	I am confident to find solutions or get help, if I encountered difficulties using AI in my teaching	1 (1.5)	7 (10.6)	25 (37.9)	25 (37.9)	8 (12.1)	3.48	0.899

Item 10 showed a medium high mean score of 3.42 (SD=0.824) signifying a moderate agreement with 31.8% of participants (n=21) agreeing that they could easily incorporate AI into their current teaching practices and 10.6% participants (n=7) strongly agreed. However, neutral responses from 43.9% of participants (n=20) had slightly exceeded even with Agree and Strongly Agree responses combined.

The mean score for Item 11 is medium high at 3.32 (SD=0.862), which shows moderate agreement; 33.3% of participants (n=29) agreed that they could quickly become proficient in using AI tools for teaching, and 7.6% of participants (n=5) strongly agreed. Neutral responses to this item slightly exceeded Agree and Strongly Agree responses combined, with 43.9% of participants (n=29).

Item 12 presented a medium high mean score of 3.48 (SD= 0.899) which suggested a moderate confidence in finding solutions or getting help if there are difficulties faced when using AI. 37.9% of participants (n=25) agreed with the item and 12.1% (n=1) strongly agreed. There was a significant number of neutral responses from 37.9% of participants (n=25).

Attitudes towards using AI
Table 5 shows data on teachers' attitude towards using AI in their classrooms. There are 3 items in the table below.

Table 5
Attitudes towards Using AI

No	Items	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	SD
13.	I like the idea of using artificial intelligence (AI) in my lessons.	1 (1.5)	4 (6.1)	22 (33.3)	23 (34.8)	16 (24.2)	3.74	0.950
14.	I am comfortable with the idea of using AI tools in my classroom.	1 (1.5)	6 (9.1)	23 (34.8)	23 (34.8)	13 (19.7)	3.62	0.957
15.	I have a generally favourable attitude of AI enhancing my students' learning experience.	1 (1.5)	5 (7.6)	22 (33.3)	23 (34.8)	15 (22.7)	3.48	0.960

The mean value of Item 13 is medium high at 3.74 (SD=0.950), showing moderate partiality towards using AI in their lessons. Specifically, 34.8% of participants (n=23) agreed that they like the idea and 24.2% of participants (n=23) strongly agreed. There was also a significant percentage of neutral responses at 33.3% (n=22).

Item 14 presented a medium high mean score of 3.62 (n=0.957) which showed moderate agreement with 34.8% of participants (n=23) agreeing that they are comfortable with using AI in their lessons and 19.7% of participants (n=13) strongly agreed. The percentage of neutral responses was notable with 34.8% of participants (n=23), equivalent to those who responded agree.

A medium high mean score of 3.48 (n=0.960) in Item 15 suggested a moderate consensus, with 34.8% of participants (n=23) agreeing that they generally have a favourable attitude towards AI enhancing students' learning experience and 22.7% of participants (n=15) strongly agreeing. The table also reports notable neutral responses at 33.3% (n=22)

Behavioural Intent of Using AI
Table 6 shows data on teachers' intention of using AI in their classrooms. There are 4 items in the table below.

Table 6
Behavioural Intent of Using AI

No	Items	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	SD
16.	I intend to incorporate AI into my lessons	1 (1.5)	6 (9.1)	22 (33.3)	25 (37.9)	12 (18.2)	3.62	0.941
17.	I am likely to explore AI tools for teaching in the near future	1 (1.5)	4 (6.1)	17 (25.8)	30 (45.5)	14 (21.2)	3.79	0.903
18.	I plan to use AI technology to enhance my teaching methods.	1 (1.5)	4 (6.1)	16 (24.2)	28 (42.4)	17 (25.8)	3.85	0.932
19.	I will try to incorporate AI in my classroom if given the opportunity.	1 (1.5)	3 (4.5)	15 (22.7)	32 (48.5)	15 (22.7)	3.86	0.875

The mean scores for all Items 16,17,18 and 19 are medium high at 3.62 (SD=0.941), 3.79 (SD=0.903), 3.85 (SD=0.932) and 3.86 (SD= 0.875) respectively. All the responses from these four items showed moderate intent of using AI in their lessons. Item 16 showed that 37.9% of participants (n=25) have the intention to integrate AI into their lessons while 18.2% of participants (n=12) strongly agreed.

In Item 17, 45.5% of participants (n=30) agreed that they are likely to explore AI tools for teaching and 21.2% of participants (n=14) strongly agreed. The responses in Item 18 showed that 42.4% of participants (n=28) plan to use AI technology to enhance their teaching methods with 25.8% (17) strongly agreed. 48.5% of participants (n=32) presented in Item 19 agree that they will try to incorporate in their class whenever possible with 22.7% of participants (n=15) strongly agreed. Neutral responses in all four items were significant with 33.3% of participants (n=22) in Item 16, 25.8% (n=17) in Item 17, 24.2% (n=16) in Item 18 and 22.7% (n=15) in Item 19.

Discussion
Familiarity with AI
Based on the findings in Table 2, the participants have a moderate familiarity of AI in education as the mean scores of all items are moderately high. The mean scores indicate that the participants are, on average, familiar with AI but not at the highest extreme as there are significant neutral responses. The standard deviation for all the items show moderate variability of teachers' perceptions which shows a certain degree of dispersion of data while it is still relatively close to the mean. The average participants are certain to have an adequate knowledge and understanding of AI used in classrooms with frequent exposure to AI tools

and technologies. This is supported by An et al. (2022) whose participants possessed adequate AI knowledge. However, there are teachers who expressed a neutral stance. This indicates that they may know what AI is but are not ready to integrate it into their lessons, This is somewhat aligned with Allehyani and Algamdi (2023) as they reported that teachers are not ready to integrate AI into their lessons as they lack digital skills and knowledge. Teachers who lack the necessary knowledge avoid using AI tools (Chounta et al., 2021). They are unaware of its potential benefits and are partial to their current teaching methods.

Perceived Usefulness

The mean score of 3.59 (SD= 1.037) shows a moderate level of agreement with perceived usefulness of AI in the use of AI to grade students' homework. It also suggests moderate variability in which most participants' responses are closer to the mean but there are significant responses that differ from the mean, suggesting mixed views. The variability of the result shows that most participants perceive AI to save time in grading students' homework but there are notable neutral responses which suggests uncertainty about its use in grading students' homework. Neutral responses indicate that the participants are hesitant in fully embracing AI in the purpose of grading students' homework. AI reduces teachers' workload by helping them review students' homework or assignments, thus enabling them to focus on other tasks (Har, 2023; Chounta et al., 2021). However, there are concerns about its fairness and accuracy as Crossley et al. (2019) highlighted that many notable errors are left out when correcting them and insufficient feedback being provided for writing tasks, raising doubts of its usefulness in this aspect.

The participants' responses also show a moderate level of agreement with perceived usefulness of AI in improving student participation, with the mean score of 3.74 (SD=0.982). There is a moderate variability in data with the mean in line with positive views despite having notable differences in responses. Most participants agree that AI improves students participation in classrooms but sufficient neutral responses suggest that participants have mixed views on improving students participation. Using technology in the classroom including AI increases student engagement especially in stimulating their interest in the lesson. According to Kee and Kabilan (2021), students are motivated to participate actively in exploring and integrating knowledge as their study shows pupils actively reflecting on their errors after receiving their feedback from AI. However, uncertainty about utilising AI to improve student participation remains as highlighted by Firdaus and Nawas (2024) and Maharani et al. (2023) on AI being a distraction in the classroom. Some participants may feel that students' focus is diverted from the lesson content and thus hesitation in using AI in the classroom.

The mean score of 3.77 (SD= 0.856) shows moderate agreement among the participants regarding the usefulness of AI in customising or personalising learning for students. There is also a moderate variability in data as most responses are closer to the mean while notable responses are differing the mean. This suggests that most participants find AI useful in customising learning for students while significant neutral responses indicate that they are unsure of using AI to personalise learning for students. These findings align with studies by Alharbi and Khalil (2023) and Hazaymeh et al. (2024) which find that personalised learning is beneficial in the students' learning process. AI has provided alternatives in their instructional approaches with personalised instructions and facilitated differentiated learning

in the classroom (Hartono et al., 2023). Personalised learning helps teachers design lessons according to students' abilities and strengths while also easing teachers' workload and save time. Participants with neutral responses recognise its benefits but may have reservations in fully embracing AI for personalised learning. Teachers would require hands-on experience to form a more definitive opinion .

Perceived Ease of Use

The mean score of 3.42 (SD= 0.824) shows moderate agreement that it is easy to incorporate AI into their teaching practices. Its standard deviation suggests moderate variability in data with most responses being aligned with the mean while there are also significant deviations from the mean. On average, participants perceive AI to be moderately easy to incorporate into their lessons as there are a considerable number of participants providing neutral responses, reflecting some uncertainty. These findings differ slightly from Xin et al. (2022) and Mazliyana et al. (2024) in which AI is easy to be integrated in their lessons. Mazliyana et al. (2024) further emphasised that AI being user-friendly makes it easier for teachers to adapt and integrate AI into their lessons. However, the neutral responses in this study indicate a lack of experience in using technology or AI in general, which could explain the uncertainty in embracing AI into their lessons. Providing additional assistance or training may help teachers to be more confident and to use AI with ease.

Attitudes towards Using AI

The participants show a moderate agreement on having a favourable attitude towards AI with a mean score of 3.48 (SD=0.960). The standard deviation shows moderate variability with most responses closer to the mean while notable responses differ from the mean. Most participants have a favourable attitude toward using AI while some remain neutral, suggesting a mixed stance in utilising AI in their lessons. This is similar to a study conducted by Pokrivcakova (2023) showing positive attitudes towards incorporating AI into their lessons. However, the difference in this study is seen with a significant number of neutral responses as participants have mixed feelings towards using AI in classrooms. They generally have a favourable attitude towards using AI but need to be more certain about its use and efficiency in delivering the lesson to the students. They would need further understanding and more hands-on experience to form a stronger opinion on its use.

Behavioural Intent of Using AI

The mean score of 3.62 (SD=3.62) shows moderate agreement from the participants on their intent in using AI in their classrooms. The standard deviation shows moderate variability in which most responses are closely aligned to the mean with notable deviations. This suggests that most participants intend to integrate AI into their lessons while a considerable portion of neutral responses show uncertainty towards its implementation. In contrast, An et al. (2022) found that their participants have strong behavioural intention to integrate AI in their lessons. This difference stems from notable neutral responses that indicate hesitance due to mixed attitudes of participants towards incorporating AI in classrooms. The hesitance among participants may influence their decision in integrating AI in their classrooms.More exposure and experience of AI are needed to build confidence and thus being able to make clearer decisions in integrating AI.

Implications

The findings emphasise the importance of teachers' perceptions of using artificial intelligence in ESL classrooms. Valuable insights based on the perceived usefulness, perceived ease of use and teachers' attitudes can help understand teachers' perspectives and thus encourage effective incorporation of artificial intelligence in ESL classrooms. Teachers' beliefs, attitudes and concerns about artificial intelligence can affect its adoption, implementation and impact on the learning and teaching methodologies. Teachers' perceptions influence how AI tools deliver their lessons or achieve students' learning outcomes. Their views on AI decide whether AI tools enhance or hinder the teaching and learning process.

Understanding teachers' perceptions could assist educational institutions and policymakers in identifying potential barriers to using AI and thus provide strategies to overcome them. Offering teacher training programmes and a conducive environment to utilise AI could reduce barriers and encourage teachers to integrate AI into their lessons. The role of AI will continue to expand in the future, so it is vital to foster positive teachers' perceptions and take measures to address teachers' concerns to ensure the continuous and successful integration of AI in ESL classrooms.

Future research

The research is limited solely to gathering teachers' perceptions of AI in general. Future research may include studies teachers' perceptions of AI in specific English language skills and knowledge such as listening, speaking, reading, writing, vocabulary and grammar. More insights could be discovered when the focus of the study is on one skill. Besides, studying the impact of specific AI tools or platforms in ESL would explore the advantages of each tool or platform thus making it easier for teachers to decide the best tool for their lesson objectives and fulfilling learning outcomes.

Furthermore, future research on the benefits and challenges of using AI could be explored to reinforce the understanding of AI in ESL classrooms to ensure continuous and effective use of it. Finally, students' perceptions of using AI could be explored together with the impact of AI on their learning especially on student participation and academic achievement.

Conclusion

Overall, teachers have a positive perception of using AI tools despite a significant degree of uncertainty and hesitance in fully embracing them in ESL classrooms. They generally have a favourable attitude in using AI as they perceive AI to be useful and have the intention to use it in classrooms. They also find AI to be moderately easy in its application as they lack the experience to have more confidence using it. They are cautiously optimistic with the idea of integrating artificial intelligence (AI). This would be solved when stakeholders work together to enhance teachers' understanding and exposure to AI in education. By addressing teachers' perceptions, a continuous and effective use of AI technology can be ensured in ESL classrooms.

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