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Appreciative Inquiry into Implementing Artificial Intelligence for the Development of Language Student Teachers

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Abstract: The current study investigates the perceptions of four student teachers of implementing AI tools for designing ELT lessons into their microteaching sessions. The professional development of student teachers achieved via adapting AI tools has not been widely investigated, since the majority of available studies focus on the students' learning of language skills with AI tools. This study follows the appreciative inquiry approach that emphasises positive teaching practices, aiming to foster sustainable professional development. The participants of the study were MA student teachers studying the Advanced Teaching Practicum course at a Saudi university over one academic semester. Their experiences of designing ELT lessons for their microteaching sessions were reflected upon in reflective journals and a BlackBoard forum. The qualitative analyses of the journals, the forum and lesson plans revealed that the participants appreciated using AI tools, despite the few challenges that occurred. This study demonstrates the participants' independent efforts that led them to use AI tools that have not been addressed by ELT researchers. The authors hope that this study will enrich ELT practices, assist AI designers in developing their designs by understanding teachers' experiences and contribute to a sustainable educational future.

Keywords: appreciative inquiry; artificial intelligence; ELT; reflective practice; sustainable professional development; teaching practicum

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1. Introduction

There are newly massive artificial intelligence (AI) tools that can be used for English language teaching (ELT) [1,2], but little is known about how student teachers in training will adapt and perceive this implementation. There is no sufficient information on how ELT student teachers experience the implementation of AI in their lesson designs, including how they choose from among the various AI tools available to them. Furthermore, comparing various AI tools in terms of benefits and challenges for designing ELT activities by student teachers has been rarely addressed by researchers. Available studies suggest that using AI tools by teachers can lead to improved planning, interventions, and assessment [3]. The acknowledged limitations of AI tools include overlooking teaching some language skill (i.e., reading and listening) [4], hindering learners' creativity [5], and questioning the validity of AI content [6]. The availability of further studies would highlight more benefits and limitations of AI tools and allow universities to design professional development courses that will prepare student teachers for this mission. It is the purpose of this study to cover these inquiries.

Since young and adult learners are more likely to rely on technology these days for obtaining information and working on their assignments [7], teachers should be in tune with the needs and preferences of their learners, and they should choose teaching practices that contribute to sustainable teaching and learning. Gregersen and Mercer [8] claim that little has been found emphasising positive practices in teaching. In addition, AI tools

can improve students' linguistic abilities to overcome grammatical errors and enrich their word usage. For example, in an 8-week quasi-experimental study involving 31 Japanese university students studying English, Dizon and Gayed [9] found that students who used the Grammarly program produced fewer grammatical errors and demonstrated greater lexical variation in their writing compared to other students who did not use such an AI tool. Similarly, using AI tools in writing can increase the level of self-efficacy among users [10]. To this end, language teachers need to work in a positive teaching environment that will reinforce their positive teaching practices and thus increase their confidence when using AI tools [11].

This study aims to identify and strengthen the positive aspects of using AI from the perspectives of ELT student teachers and to hear their suggestions on overcoming the challenges and difficulties of AI tools. Generally speaking, sharing teachers' experiences with AI may increase the confidence of other language teachers who are still hesitant to try AI in their classrooms [12,13]. Reflective journals have been used as a professional venue for teachers to express their thoughts and feelings and to share their teaching stories [14,15]. They form a common tool for documenting reflective practices. Reflective practices focus on what, how, and why, which can lead to a deep understanding of professional practices [16,17]. Stories possess the ability to serve as a transformation point [18]. As previous studies have indicated the potential of AI tools to reach desirable objectives, instructors encounter challenges during the process of integrating these tools [3,19]. To sum up, uncovering the teachers' reflections will enhance the field of educational research. De Costa et al. [20] spotted the vital role of researchers in establishing a shared dialogue between researchers and practitioners for reciprocal reflexivity. In other words, research facilitates bidirectional knowledge: teaching-informed research and research-informed teaching [21]. This explains why the present study used reflective journals to approach the teachers' perceptions of and stories with AI tools.

Having said that, this study highlights the positive aspects of designing AI-based lessons. The appreciative inquiry approach matches the purpose of this study and has been adapted by the researchers to underpin the study design. Appreciative inquiry is an approach that leads to organizational and social transformation, since it emphasises the generation of positive ideas over the identification of negative issues [22]. Appreciative inquiry can help bring about a positive vision for professional practices since it seeks to identify the turning points in professional success via collecting and sharing stories [8].

To sum up the above discussion, teachers need to think positively about using AI in their classrooms, despite the challenges that may occur, in order to meet the needs of their students and the expectations of their educational organisations. This study will address the following questions:

1. How do the student teachers perceive the implementation of AI tools for designing their ELT lessons?
2. What are the benefits of implementing AI tools for designing ELT lessons?
3. What are the challenges when implementing AI tools for designing ELT lessons?

2. Literature Review

2.1. Studies on AI Tools in ELT Classrooms

Most of the published research on AI tools in ELT classrooms focuses on the impact of these applications on language learners and inadequately addresses the teachers' professional development. Teachers' experiences with these tools when used for design language lessons and how they affect their professional development is still vague. Previous studies have investigated the impact of utilizing different AI tools, such as ChatGPT, Kahoot, QuillBot, and Grammarly [9,23–26], on learning and teaching foreign languages. Technical experts believe that using AI as a tool for teaching and learning will increase quality and advantages for all stakeholders in the education sector [19]. Furthermore, some challenges in education can be solved by using AI in the classroom [27].

In the pedagogical literature, AI tools have been associated with providing feedback to students through grammar and spelling checkers [4]. Using AI tools in teaching has been linked to positive results such as improving grammar, word skills, grammatical accuracy, and vocabulary richness. For example, in a qualitative case study conducted by collecting data from 13 preparatory class students who were enrolled at a foundation university in Ankara, Karataş et al. [23] examined the impact of incorporating AI (specifically ChatGPT) on different language skills over four weeks. The results of the study revealed that although it did not address the teachers' opinions, this application assisted students in overcoming writing difficulties (such as developing grammar and word skills) and increasing the level of motivation to learn the language and participation in interactive language learning activities. However, the results indicated that ChatGPT had little effect on speaking. In addition, the study raised a few concerns, including the students' overreliance on ChatGPT and the possibility of hindering the students' critical thinking skills. Similarly, in a mixed-methods study (semi-structured interviews, observations, analysis of writing samples (pre-post)) conducted by collecting data from 30 students enrolled in the English Writing1 course and teachers' viewpoints, Minh An [24] investigated the use of ChatGPT to improve English writing skills and critical thinking. The results of the study revealed that ChatGPT significantly improved students' writing abilities (grammatical accuracy, vocabulary richness, structural coherence, argumentation depth) and helped them stimulate critical thinking skills. However, the study raised a few concerns such as overreliance on ChatGPT and the possibility of hindering the students' critical thinking skills. Another mixed methods study targeting writing skill by Mohammad [25] collected data from 25 Najran University's preparatory year students in the Kingdom of Saudi Arabia, using a pre-test, a post-test, and semi-structured interviews. Mohammad [25] found that QuillBot was a successful tool for improving students' writing skills, as there were noticeable improvements in various areas (summary, grammar, spelling, paraphrasing, ordering the sentences, recognizing accurate sentences, and matching phrasal verbs).

In another mixed-methods study that investigated the use of Kahoot for vocabulary acquisition, Reynolds and Taylor [26] collected data from 15 instructors and 24 students, using a pre-test, a post-test, open-ended questions, closed-ended questions, and focus groups). They concluded that language teachers prefer to use Kahoot due to the observed positive effects of increasing the students' linguistic vocabulary. Their study was limited to collecting the instructors' views through a questionnaire on one application and one linguistic skill, i.e., vocabulary acquisition. Similarly, in a quasi-experimental design study which was conducted to investigate the impact of neural machine translation (NMT) on vocabulary learning, Lo [28] found that NMT has a positive impact on vocabulary improvement and retention.

The above studies revealed that most AI studies focused mainly on writing skill. Studies on using AI for enhancing other language skills, namely reading, listening, and speaking are limited. For instance, Shivakumar et al. [29] proposed a mobile application that offered virtual coaching for correcting pronunciation and practicing reading. The application led to increased independent learning opportunities.

A few studies have examined teachers' practices and the pedagogical implementation of AI in the classroom or during training programs. For instance, Söğüt [6] examined the reflections of 28 EFL pre-service teachers on the implementation of ChatGPT for teaching writing. The teachers acknowledged the benefits of this chatbot for managing writing block, facilitating task design, and providing learners with personalised feedback and language support. However, the study raised concerns regarding the validity of the content generated by AI tools and the need for ethical guidelines. Despite the positive impact of AI tools on learning and teaching, the implementation of these tools can be risky. The 'Guidelines for Generative AI in Education and Research' published by Miao and Holmes [7] provide guidance for educators while conducting a thorough analysis of the possible risks associated with generative AI (GAI). Most countries lack national regulations on GAI, which leaves user data vulnerable when it comes to privacy, as well as leaving educational

institutions unprepared to validate the tools. The head of UNESCO, Audrey Azoulay, went on to say that government regulation and public involvement are necessary for the integration of GAI into education [7]. Therefore, it follows that the creation of GAI is a social issue involving several domains, such as technology development, application, and regulation. Another AI limitation is that AI may hinder the learners' creativity, producing biased content, and the misuse of AI tools [30]. Furthermore, AI tools are expected to be used as complementary teaching aids, not as replacements for the teacher's role [23].

To summarise the studies reviewed in this section, the investigated tools were few and were mainly limited to ChatGPT, QuillBot, Grammarly, and Kahoot. Writing skills and vocabulary form the top investigated language skills. The investigations were mainly learner-centred. As stated by Edmett et al. [4], using AI tools with the receptive skills (reading and listening) and speaking was overlooked. To the best of the authors' knowledge, there is no published research comparing different educational AI tools, or investigating the criteria followed by ELT teachers for selecting from among these applications. This gap in the literature has yielded a limitation in identifying the positive impact and challenges associated with designing ELT activities, and this calls for delving into the experiences of language teachers using these tools. A systematic review of 44 empirical studies by Celik et al. [3] explored the promises and challenges of artificial intelligence (AI) for teachers. The results of the study revealed that training schoolteachers to use AI tools led to improved planning, interventions, and self-assessment. The question now shifts to the inquiry model that will facilitate teachers' missions when adopting AI in their teaching designs and may contribute to their professional development. A promising model that is considered to be new in the field of ELT is the appreciative inquiry model. The next sub-section introduces this model in detail.

2.2. Appreciative Inquiry in ELT Classrooms

Appreciative inquiry is a transformational model for organisations originally proposed by Cooperrider and Srivastva [22]. Using appreciative inquiry has been found to be a helpful model for successful foreign language teaching and teacher training [8,31]. In addition, appreciative inquiry as a methodology can help students refocus on their improvements and assist instructors in effectively considering and building upon their students' needs [32]. The transformative aspect of appreciative inquiry lies in two potentials: (a) emphasising changing people's thought processes rather than their practices and (b) emphasising the self-organising change processes that arise from novel concepts. This model has been identified as a successful transformational model in professional practices [8,33]. Appreciative inquiry has become a beneficial model for developing teaching practices in higher education in Australia [34]. It provides peers with opportunities to learn from one another via sharing reflections. Appreciative inquiry as a theory, methodology, and process of change has not been widely used in the field of ELT professional development [8]. An appreciative inquiry typically involves a cycle of four stages [22]:

1. Discovery: This stage involves identifying and appreciating the positive aspects of the organisation or system. This might include exploring past successes, identifying core values, and understanding what has worked well in the past. Through interviews, surveys, or other data collection methods, the researchers gather stories and examples of when the organisation or system has been at its best.
2. Dream: In this stage, the participants envision the future they want to create. They imagine what the organisation could look like if it were operating at its best, considering the insights gained from the discovery phase. This often involves brainstorming and creative thinking to generate ideas and possibilities for the future.
3. Design: The participants in this stage work together to design strategies and action plans for achieving the desired future. They build on the insights from the discovery and dream phases to develop concrete steps and initiatives that will move the organisation or system toward its goals. This stage often involves collaboration, innovation, and consensus-building among stakeholders.

Figure 1 summarises the four phases of the appreciative inquiry.



Figure 1. The appreciative inquiry phases.

3. Methods and Materials

This study was a qualitative exploration of student teachers' reflective practices of using AI for designing and conducting their ELT lessons in microteaching sessions. The participants consisted of four female students enrolled in MA in TESOL at Taif University, in Saudi Arabia. The total number of registered female students was eight. However, only four of them provided their consent to participate in this study. The microteaching was a core requirement of the course Advanced Teaching Practicum for the academic year 2024 taught by one of the researchers. The course required them to plan, design, and deliver ELT lessons. The delivery method was microteaching sessions in which the participants present these lessons to their classmates and the instructor for feedback, a process that was expected to develop future lesson designs. To maintain the anonymity of their participation, the researchers represented the participants using a random letter from their names, as shown in the table below.

The study was conducted over 14 weeks. The instructor introduced the topic of AI in ELT classrooms. The students were given topic-related materials to read and watch, including YouTube clips on using AI tools in the classroom. They were given a chance during class to navigate some AI websites to understand how they work and to discuss how they can be used in classrooms. They were asked to design two AI-based lessons. They were encouraged to search for the latest AI tools that have not been discussed in the class to trigger further efforts in identifying and choosing AI tools that match the aims of their lessons.

They were empowered to choose the skills, activities, and AI tools that they preferred. The data collection phase was informed by the appreciative inquiry phases (Figure 1). In the discovery phase, the students were encouraged to choose the skill they wanted to teach (reading, writing, listening, speaking, grammatical aspects, etc.), to follow the teaching approach that they believed in, and to choose the AI tool that matches the lesson objectives. During the first introductory sessions, the students demonstrated an interest in improving their AI skills, since the majority of them were not teaching. This formed the dream phase that was summarized in Table 1 under the future self-images as TESOL teachers. In the design phase, the participants worked on designing strategies and action plans for achieving the desired future. They were divided into discussion groups to share their knowledge and experiences in class. They were freely encouraged to design their lessons using the AI tools of their choice and preparing lesson plans to identify their objectives in alignment with the AI tools. In the destiny (or delivery) phase, the students implemented the action plans developed in the design phase, received feedback from their classmates and the instructor, and finally, evaluated their experiences in their reflective journals, focusing on the positive aspects of AI and strategies for overcoming challenges as part of their professional development. The reflective journals were submitted by the end

of semester 2/2024. Reflective journals were chosen by the researchers as the main data collection tool because they could provide a detailed account of the participants' stories in relation to AI tools. In addition to the reflective journals, the participants were asked to write their initial reflections following the first microteaching via a BlackBoard (BB) forum. The purpose of this BB forum was to build a shared dialogue in which the participants could exchange experiences for their professional development and provoke more initiatives for the implementation of AI tools in their future lesson designs. Thematic analysis was employed for both the reflective journals and BB forum. In order to enhance the study validity, lesson plans were cross-referenced with the four phases of the appreciative inquiry framework, and screenshots of some AI-based activities were inserted.

Table 1. Participants' profiles.

Participant	Teaching Experience	Teaching Philosophy	Future Self-Image as TESOL Teachers
J	5 Yrs	"Learning environment should meet students' needs."	"A teacher who can teach at national and international levels."
Y	2 Yrs	"My teaching philosophy is grounded in a task-based approach, emphasising the Importance of practical activities that are aligned with learning objectives. I integrate both pre-teaching and post-teaching activities, providing students with opportunities to engage with content independently."	"I plan to continue using AI tools in my future career as a language teacher. My decision is strongly influenced by the inspiring uses of AI I have witnessed in my classmates' activities and microteaching sessions."
N	None	"The constructivism theory and flipped classroom approach form the bases of my language teaching philosophy. I believe learning is an active, constructive process in which students learn new ideas above their current knowledge with the teacher's and their peers' scaffolding. home and during the class time."	"I will continue my professional development by: Attending conferences, reading research and taking advice from experienced teachers."
T	None	"Teaching is a more organised practice, as well as class/time management. It is a dedication and contribution to society by preparing the students for their futures."	"Language is a structured process. The teacher must attract students' attention by choosing a topic that depends on her or his students. Additionally, the teacher must simplify the activity and must give clear instructions. I prefer literature. It involves critical thinking, new vocabulary, discussions, and creativity."

4. Results

This section presents the diversity of AI tools implemented by the participants for designing ELT lessons and activities and identifies themes that reflect the participants' appreciation of these AI tools and their acknowledged challenges of said tools. Overall, the participants managed to integrate various AI tools in their lesson designs for teaching different language skills. Figure 2 demonstrates the AI tools used in relation to the language skill type. This variation revealed the participants' enthusiasm towards achieving their future self-images.

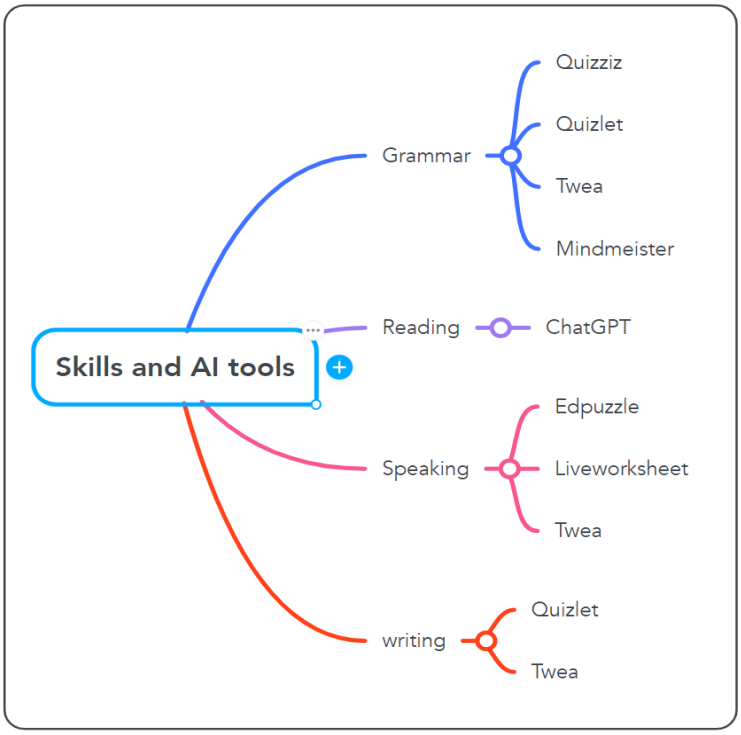


Figure 2. Skills and implemented AI tools.

The following sections highlight the benefits and challenges of AI tools.

4.1. The Benefits of Implementing AI Tools

4.1.1. Personalised Teaching

As claimed by the participants, AI tools empower teachers and encourage them to create lessons that match their teaching philosophies.

> *"Overall, the ability of AI tools to provide personalised, efficient, and adaptable solutions makes them a valuable resource in the field of language education, enhancing both teaching and learning experiences".* (Y/reflective journal)

> *"I believe that by selecting an AI tool that meets these criteria, I can significantly enhance my lesson planning progress, making my teaching efficient, personalised and inclusive".* (J/reflective journal)

4.1.2. Enhancing Teaching Initiatives

The participants revealed their appreciation of AI tools because these tools have enlightened their professional development journey and encouraged them to search for more AI tools and think of designs that matched the lessons' aims and chosen linguistic skills.

> *"Integrating AI tools to generate activities and questions relevant to the lesson content has proven to be a valuable asset. It simplifies the preparation process, providing me with a wide range of creative options that enhance my learning experience. . . I truly appreciate how these innovative tools offer infinite possibilities, allowing me to depend on them for crafting dynamic and interactive learning environments".* (Y/reflective journal)

> *"AI can design a complete course and create multiple activities, using innovative ideas for group work in seconds. . .Technology can improve creativity and innovate a new topic and activity, and it is even easier to design a small coursebook by teachers who can adapt any authentic materials from the internet".* (T/reflective journal)

N acknowledged the positive practices of her classmates after the first microteaching:

> *"There was a variety of AI tools used, such as Conker, Learn Cube, GooseaChase, and Worksheet Maker. . .I might apply the shadowing activity supported by behaviorism theory".* (N/BB forum)

Although N had planned to use the shadowing activity that aimed to teach pronunciation as created by one of her classmates using the Poe AI tool, it was obvious that N came across other tools, as manifested in her designs summarized in Table 2. Her efforts in finding new tools to adapt for teaching particular linguistic skills could be evidence of her professional development during the discovery phase.

Table 2. A comparative analysis of AI tools.

	AI Tools	Participants	Benefits	Limitations
1.	TWEE https://twee.com/ accessed on 22 March 2024	J	• Generating dialogues and stories for any level of language proficiency • Generating prompts that encourage students to reflect on a topic/activity	Payment required
2.	QUIZIZZ https://quizizz.com/ accessed on 22 March 2024	J, N	• Creating quizzes for uploaded materials • Grading quizzes • Importing quizzes from Google forms and worksheets • Cost-free	Generated repetitive questions which required teacher's editing
3.	CONKER https://www.conker.ai/ accessed on 23 April 2024	J	• Creating quizzes that varied between multiple choice, fill in the blanks, etc. • Allowing teachers to choose the students' level before generating a quiz and writing source materials and exporting them to Google forms	Payment required
4.	ChatGPT https://openai.com/chatgpt/GPT-4.0 accssesd on 21 March 2024	Y	• Appropriate for creating reading materials • Interactive for teachers when designing their lessons • Providing teachers with various options of designs and activities	Concerns of plagiarism is raised due to absence of source information
5.	Copilot https://www.microsoft.com/en-us/microsoft-copilot accessed on 22 March 2024	N	• Creating texts of different lengths • Creating images, based on prompts that describes the contents of the images	Limited free access
6.	Quizlet https://quizlet.com/gb accessed on 23 April 2024	N	• Easy to use • Summarizing information onto the form of flashcards from uploaded materials that can be used by students to memorize and learn	• Question formats are limited to multiple choice and flashcards • Limited free access
7.	Edpuzzle https://edpuzzle.com/ accessed on 21 March 2024	T	• Creating video lessons • Creating comprehension questions related the created videos • Grading students' responses • Providing teachers with a library of subject-based contents created by other educators	None

Table 2. *Cont.*

	AI Tools	Participants	Benefits	Limitations
8.	Poe AI https://poe.com/ accessed on 23 April 2024	T	• Chat-based AI tool • Designing a lesson in seconds by typing the information in the chat box • Free access	None
9.	Mindmeister https://mindmeister.com accessed on 23 April 2024	N	• Creating online mind maps for collaborative work for small groups • Linking maps to multimedia resources	Limited free access
10.	Liveworksheet https://www.liveworksheets.com/ accessed on 23 April 2024	T	Creating collaborative work for small groups	Limited free access

Due to the word limit of this article, two representative lesson plans created by the participants are shared (Figures 3 and 4). These activities presented revealed the flexibility of AI tools for creating simple and complex activities, depending on the target learners and lesson aims. One lesson plan on grammar for primary school children, year 6, was created by N using Quizizz. Her design processes were written in the lesson plan and constituted the third phase of the appreciative inquiry framework involved:

1. Creating a teacher account;
2. Choosing a quiz;
3. Generating the topic of the quiz (i.e., simple present tense);
4. Identifying grade, subject, and the number of questions;
5. Generating questions with the assistance of AI;
6. Editing the questions using 'Enhance with AI', such as converting the question to fill in the blanks, fixing grammatical errors, adding students' names, adding pictures, and adding answer explanations.

When finished, clicking start.
Figure 3 is a screenshot of N's activity.

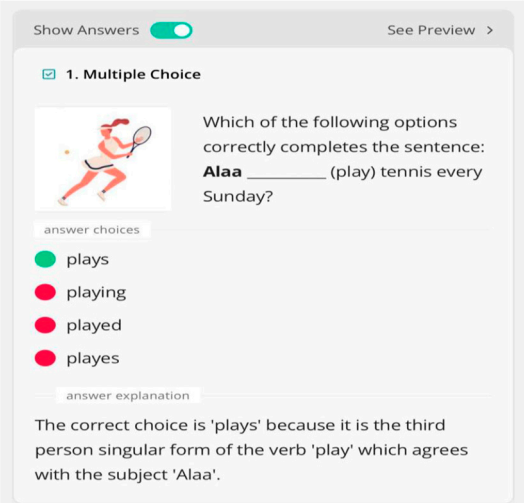


Figure 3. A screenshot of a Quizizz activity.

Another more advanced design was created by J using Twee for generating a real-life dialogue. The idea of this dialogue was to practice the phrase 'either… or', combining grammar and speaking skills. Her summary of the activity design was:

1. Register with Twee;

2. Click 'Create a dialogue on any topic';
3. Identify the topic, particular vocabulary related to the topic, and the students' proficiency level;
4. Click on 'do the magic';
5. The dialogue is ready.

Figure 4 below shows a screenshot of J's dialogue.

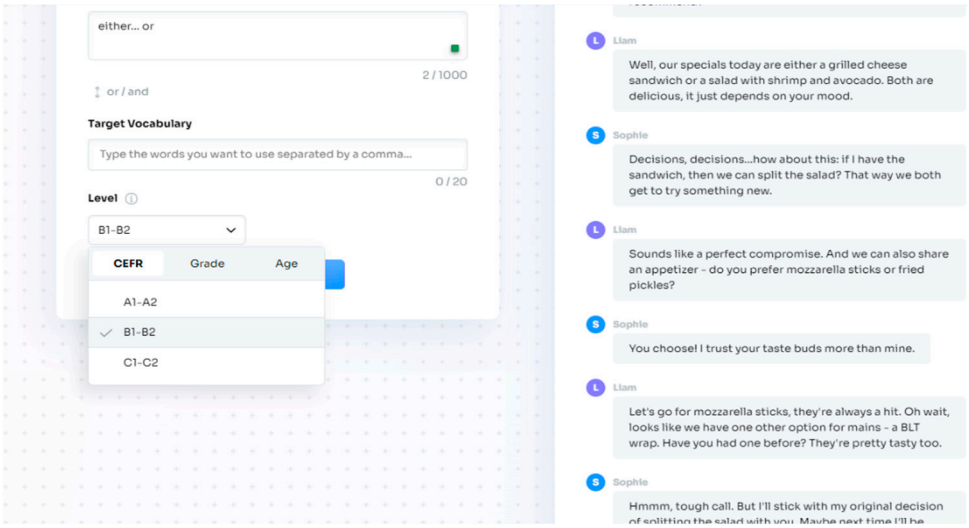


Figure 4. A screenshot of a Twee dialogue.

4.1.3. Dynamic Interaction

"Teachers can integrate AI tools to supplement traditional teaching methods, providing a more dynamic and interactive learning environment". (J/reflective journal)

"There are also different kinds of AI tools on the internet that aim specifically to teach English and include interactive activities used in online collaborative platforms, such as smartboards and digital media". (T/reflective journal)

"I believe that integrating AI tools will make lessons more interactive and enjoyable for the students who are more eager nowadays to learn independently". (N/reflective journal)

"The use of AI tools enriches educational activities, making them more engaging and enjoyable for students. I truly appreciate how these innovative tools offer infinite possibilities, allowing me to depend on them for crafting dynamic and interactive learning environments". (R/reflective journal)

4.1.4. The Appropriateness of AI Tools for Teaching Language Skills

The participants used AI tools for different teaching language skills, as is seen in Table 2. The following quotes highlight the flexibility of AI tools for planning and designing language skill lessons.

"From streamlining administrative processes to customising learning materials, AI tools are reshaping the future of education. We can teach any language skill by integrating AI tools into the lesson". (J/reflective journal)

"I believe that AI tools can be used for teaching all language skills if required training is provided for teachers". (N/reflective journal)

Y agreed with N and added further details:

"AI can simulate real-life scenarios, providing students with practical, engaging experiences that enhance their learning. It also offers listening exercises and various other activities to support understanding. The comprehensive capabilities of AI make it a

valuable asset in language education, allowing for a dynamic and adaptive learning environment that can accommodate diverse learning styles and requirements. . . Exploring AI and technology during this course opened my eyes to many software, applications, and available AI tools that can assist teachers in creating dynamic activities tailored to various language skills". (Y/reflective journal)

4.1.5. Evidence of Professional Development

In their reflections, the participants mentioned what they had learned from observing their peers during the microteaching sessions. Also, they compared their teaching thoughts before and after this experience.

"Speech recognition tool used by my classmate T can greatly enhance learners' communicative skills by allowing pronunciation corrections. . . I have acquired numerous techniques and approaches that will aid in my development as a teacher and positively impact my students". (J/reflective journal)

"I enjoyed seeing my classmates' innovative lessons which sparked many creative ideas for integrating technology into language teaching". (Y/reflective journal)

"As a novice teacher, my perspective of teaching was traditional, the teacher is in front of the classroom and solving book exercises which was my first micro-teaching. Quizlet, and Quizizz have significantly changed my teaching practice and perspective to technology exercises, teacher as a monitor, and student-centred approach". (N/reflective journal)

In her comment on BB forum, T demonstrated her awareness of the necessity of relating AI tools to learners' needs.

"I will benefit from using AI tools to create a collection of interactive online activities and designing lesson plans that are suitable for students' needs after analyzing their weaknesses in some language skills". (T/BB forum)

In her reflective journal, T compared her knowledge and skills before and after considering AI tools:

"Before this course, I hadn't considered any thoughts about AI tools. When searching for these tools, I usually go first to social media, such as TikTok, where some experts like to help by providing reliable information. There is YouTube, which offers short or longer video explanations on how to use AI to design lessons. For this purpose, I need to understand visually how it's done and how other native teachers explain it". (T/reflective journal)

T added *"I will use AI in the future because, before this course, I never thought it easy to implement AI in the lessons. It allowed me to efficiently assist in teaching and planning lessons perfectly without flaws. Language learning needs to be fun and have positive surroundings, so the students do not feel anxious".*

Similarly, J expressed her awareness of the teaching skills that she needed to focus on.

"Several things have drawn my attention during my classmates' microteaching sessions. They highlighted important aspects of effective teaching and communication, such as questioning techniques. I've witnessed my classmates employing various questioning techniques, such as open-ended inquiries, probing questions, and rhetorical questions, with the aim of stimulating a more in-depth examination of the subject matter and fostering greater student engagement". (J/BB forum)

4.1.6. Criteria for Choosing AI Tools

The participants emphasised the most important criteria when choosing AI tools during the discovery and design phases, including free access, easy use, providing feedback, and scoring answers.

> *"They must have criteria, such as: being easily accessible for the students, providing easy and free question formats such as multiple-choice and fill-in-the-blanks that the students are familiar with".* (N/reflective journal)

J added further details on the criteria of choosing AI tools:

> *"When choosing an AI tool for lesson planning, I always consider many criteria, such as:*
>
> *a. Alignment with Educational Objectives; The tool needs to be aligned with my teaching goals and assist in overcoming the obstacles I encounter when planning lessons.*
>
> *b. Ease of Use.*
>
> *c. Feedback and Assessment Features: Tools providing real time feedback and assessment features play a role in improving the learning journey.*
>
> *d. Cost and Accessibility: Consider the tool's cost and ensure it is accessible to all students, regardless of their socioeconomic background".* (J/reflective journal)

4.2. Challenges of Using AI Tools

All the participants have raised concerns regarding some of the challenges faced during the design and delivery phases. The following sections detail these challenges.

4.2.1. Privacy Concerns

> *"However, there are challenges such as privacy concerns and the over-reliance on technology".* (J/reflective journal)
>
> *"There are worries about keeping student information safe and private. Also, if AI tools are not built well, they might deliver content that could be culturally inappropriate or incorrect".* (Y/reflective journal)

4.2.2. Reducing Critical Thinking Levels

The participants were aware of the possibility of minimising opportunities for practicing critical thinking if there was an over-reliance on AI tools.

> *"AI negatively affects creative writing for learners who depend exclusively on AI. Learners stop thinking critically when they write their thoughts. This would affect vocabulary building in language learning and critical thinking when they write short stories".* (T/reflective journal)
>
> *"Critical thinking may be hindered since AI does all the work. . . AI should be a supplementary tool rather than a major source".* (N/reflective journal)

4.2.3. Lack of Teacher Training

> *"Teachers might need extra training to use AI properly".* (Y/reflective journal)
>
> *"AI tools can improve all English language skills with appropriate training and clear guidelines. It can be a powerful tool for teaching English".* (N/reflective journal)

Table 2 presents a comparison of the AI tools implemented by the participants during their microteaching sessions, as identified by their reflective journals. Their evaluations of the AI tools demonstrate the fourth phase of the appreciative inquiry which is the delivery phase and the overall assessment of their teaching journey that follows this phase.

The table presents the innovative implementation of AI tools by the participants, as well as summarising the positive features and limitations of each tool that each participant applied. The participants used various tools. Only J and N used the same tool, Quizizz. This variation of tools provided the participants with more learning opportunities to better enrich their professional development.

5. Discussion

This study has addressed the perceptions of MA student teachers towards implementing AI tools when designing lessons for their microteaching sessions. In alignment with

Gregersen and Mercer's [8] appreciative inquiry framework for professional development, this study mainly focuses on the positive views identified by the participants. However, the study did not ignore the challenges they raised. This study has highlighted some of the AI teaching practices, benefits and challenges that will add to the limited available published findings on AI implementation by ELT teachers. As revealed in the literature review, the available studies have mainly focused on the teachers' implementation of ChatGPT, more particularly for teaching writing, with a few studies examining Kahoot and QuillBot [6,23–26]. The significance of the present study was its focus on the implementation and assessment of various AI tools for designing and planning ELT lessons (Twee, Quizizz, Conker, ChatGPT, Copilot, Quizlet, Edpuzzle, and other tools) for different language skills, as reflected in Figure 2. Examining these new AI tools has led to important findings that will be discussed in the following paragraphs.

Generally speaking, the four participants had positive views of the use of AI tools for designing ELT lessons and activities. This finding coincides with other studies that have highlighted the benefits of AI tools for ELT teachers [6,26]. It was found that the reflective journals were effective for recording their thoughts and feelings clearly, as well as providing evidence of their positive views and professional development. The participants' reflections allowed for the identification of the positive features of some AI tools. The appreciation of AI tools was evident in their acknowledgement of learning from peer practices [15]. The four participants reported the effective role of AI tools in aiding lesson design for the teaching of different language skills. Another benefit was the confidence gained after trying AI tools, a benefit that was highlighted in the literature, as in the case of participants N and T [12]. It should be noted here that the participants demonstrated high levels of independency when choosing AI tools that matched their lessons' aims and designs. They used tools that were different from the tools discussed with the instructors. They were developing independently, and this was clear in the criteria for choosing AI tools that they set (Section 4.1.6).

This emphasis on the positivity of AI tools in relation to teaching practices strengthens the appropriateness of the appreciative inquiry approach used to examine positive teaching practices in the field of ELT. The four phases of this approach (i.e., discovery, dream, design, and delivery) mapped the participants' practices clearly. Following these phases, various positive practices have been identified, such as student teachers' confidence, learning independency, and improved planning. This supports the claim that the appreciative inquiry approach can lead to professional development [8]. As stated by Hammond [33], educators and researchers are encouraged to conduct more investigations into this approach to fully understand positive teaching practices. Such investigations will inform the design of teaching training programs. Also, these investigations will hopefully inform AI tool designers of the benefits and limitations of their designs, which may lead to design improvement.

Despite the admitted benefits of AI in this study and other related studies, the implementation of AI bears some challenges. Concerns regarding the validity of AI content, privacy issues, and a reduced level of critical thinking among students were the major issues highlighted in this study and others [7,30]. Teacher training programs need to take these concerns into consideration in order to increase their teachers' awareness and overcome these challenges. The limited access to the majority of AI tools lowered the participants' investigations of further tools. Educational organizations are encouraged to offer free AI applications to assist teachers in their teaching missions. To minimize teachers' reliance on AI applications, teachers should be aware that these AI applications are used to supplement teaching practices and not to replace teachers' presence [4,23].

To sum up, this study revealed new issues related to the implementing of AI tools by language teachers, and this could widen the scope of ELT researchers and teachers on how AI tools should be approached and used to support language. It examined the features of some new AI tools used by the participants that have rarely been examined in available literature. The appreciative inquiry approach that underpinned this study proved to be a flexible approach for investigating teachers' experiences and professional

development [34]. However, the small number of participants has affected the diversity of data, since only four participants provided their consents. Testing AI tools with receptive skills (i.e., listening and reading) was limited in this study, since the majority of AI tools addressed writing, speaking, and grammar. This limitation supports Edmett et al.'s [4] call to pay more attention to receptive skills when implementing AI tools.

6. Conclusions and Future Implications

This study examined student teachers' perceptions of implementing AI tools for designing ELT lessons during their microteaching sessions. The analysis of the participants' reflective journals, BB forums, and lesson plans revealed that these participants held positive views regarding the use of AI tools. Their enthusiasm for developing their professional skills was manifested in their discovery journey of testing various AI tools. They found these tools helpful for designing lessons on different language skills, designing various new activities, and personalising their teaching experiences. These findings contribute to the benefits of AI tools in the available literature [3,6]. However, as confirmed in previous studies [5–7,30], concerns surrounding using AI tools were also highlighted in this study, including the over-reliance on technology, limiting the students' critical thinking levels, concerns regarding the validity of AI generated contents, and limited free access to some tools.

The researchers hope that this study will enrich research-informed practices for sustainable professional development and that the reported AI tools can go on to be tested by ELT teachers. Future researchers are required to draw on more comparisons of AI tools to guide ELT teachers towards the most effective tools in relation to teaching language skills, including using a larger number of ELT teachers. Future studies can benefit from incorporating reflective journals and other methods, such as lesson observation checklists and interviews to reach in-depth findings. ELT researchers are encouraged to implement the appreciative inquiry approach for investigating the practices of ELT teachers to encourage teachers' new practices and confidence in ELT classrooms [8]. Finally, the findings of this study can inform educational fields other than ELT, since it provides an evaluation of new AI tools as implemented by teachers. This may inform the instructional designs of other disciplines and contribute to the professional development of teachers.

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