Implications of Artificial Intelligence Tools in Enhancing Language Teaching Competence: A Comprehensive Analysis from the EFL Teacher's Perspective

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Abstract: The present study aimed to investigate the EFL teachers' perceptions about the role of Artificial Intelligence (AI) tools in enhancing their language teaching competence and examine how such perceptions varied across different educational stages (primary - intermediate - secondary). For fulfilling the research purpose, a descriptive survey methodology was employed, and the data was collected using a questionnaire comprising five main dimensions and 32 sub-items from a randomly selected sample consisting of 175 EFL teachers from the research population comprising EFL teachers. The results of the study revealed that EFL teachers perceived AI tools as moderately beneficial for language teaching, with the highest ranks in "teaching, learning, and assessment" and "professional development and values". However, "learning and the learner" received the lowest rank. The ANOVA test results revealed no statistically significant differences in the perceptions based on the educational stage. The research concluded that although AI tools were perceived positively, their potential was not fully realized, indicating a necessity for further development and integration. The research suggested investigating the effectiveness of AI tools in developing language teaching competences and students' learning outcomes.

Keywords: role, examine, descriptive, learning, outcomes.

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أثر أدوات الذكاء الاصطناعي في تنمية الكفاءة التدريسية: دراسة تحليلية من وجهة نظر معلمي اللغة الإنجليزية كلغة أجنبية

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مستخلص البحث: هدفت الدراسة الحالية إلى استقصاء تصورات معلمي اللغة الإنجليزية كلغة أجنبية حول أثر أدوات الذكاء الاصطناعي في تنمية الكفاءة التدريسية لديهم بالإضافة إلى تباين هذه التصورات باختلاف المرحلة التعليمية التي يتم التدريس بها (الابتدائية - المتوسطة - الثانوية)، ولتحقيق هدف البحث تم توظيف المنهج الوصفي المسحي، وتم جمع البيانات من عينة عشوائية تألفت من 175 معلمًا ومعلمة للغة الإنجليزية من خلال استبانة مكونة من خمسة أبعاد رئيسة و32 عبارة فرعية. ولقد كشفت نتائج الدراسة أن معلمي اللغة الإنجليزية كلغة أجنبية يدركون الفوائد التي يمكن أن تقدمها أدوات الذكاء الاصطناعي في تدريس اللغة الإنجليزية بدرجة ما: حيث حصل بُعدي "التدريس والتعلم والتقييم" و"التطوير المهني والقيم" على الرتبتين الأولى والثانية على الترتيب مقارنة بالمحاور الأخرى، كما حصل محور "التعلم والمتعلم" على الرتبة الأدنى، ولقد أظهرت نتائج اختبار التباين الأحادي عدم وجود فروق ذات دلالة إحصائية في تصورات المعلمين تبعًا للمرحلة التعليمية، وخلص البحث إلى أنه على الرغم من النظرة الإيجابية للأثر المأمول للدور الإيجابي لأدوات الذكاء الاصطناعي في تنمية الكفاءة التدريسية، إلا أن تصورات المعلمين نحو إمكانيات تلك الأدوات لم يصل إلى الدرجة المأمولة، بما يشير إلى ضرورة المزيد من التطوير والدمج، وإجراء العديد من الدراسات للتحقق من فعالية أدوات الذكاء الاصطناعي في تنمية بعض الكفايات التدريسية لدى المعلمين ومخرجات التعلم لدى الطلاب

كلمات مفتاحية: دور، استقصاء، وصفي، تعلّم، مخرجات.

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1. Introduction

Teachers indisputably manipulate the most profound influence on society as they reformulate the future generations' minds. Furthermore, accomplishing success in the teaching-learning process entails an amalgamation of requisites; precisely, numerous pivotal decisions ought to be taken by the teacher daily ranging from planning to evaluation for optimizing the teaching-learning process, not to mention that teaching is one of the professions which requires a multifaceted intricate spectrum of competencies to be interwoven together to attain the optimal teaching practices and the promising learning outcomes.

A myriad of investigations exhibited that multifarious factors primarily influence the success of the teaching-learning process including consideration of the learner, teacher, classroom environment, curriculum, and family support. The teacher factor arises as the most influential contributor to the success of the teaching-learning endeavour (Putri, 2012). In other words, learners who have received instruction via a competent teacher demonstrate higher levels of success signifying the pivotal role of the teachers; subsequently, the competent teacher is an essential element in every successful teaching-learning experience (Banerjee et al., 2014; Blömeke & Delaney, 2012).

Taking this into account, although the term teaching competence seems to be easy to explain and comprehend, it is a complex and multifaceted term. Teaching competence generally entails the key skill that one individual possesses; furthermore, teaching competences are sub-components that the teacher needs to effectively accomplish in order to enhance the teaching learning process. The notion of competency was first introduced in the United States in the 1970s and entails the expected learning outcomes (Wong, 2020) causing confusion and controversy after being introduced in higher education as it created confusion with the term competency; the two

terms were finally used synonymously (Zabalza, 2004).

On the same line, Deregözü (2022) affirmed that subject matter and the pedagogical aspects are essential features of the successful teacher. Teachers should be armed with the knowledge and skills to attain new methods in the changing world. More importantly, Borg (2006) enumerated the distinctive features of language teachers compared to other disciplines. First, subject matter: language is a complex entity; thus, language is more dynamic and more linked to real life than other content subjects. Second, content: not only does the content encompass the main four language skills, as well as the other language aspects such as grammar and vocabulary, but it also includes other aspects such as communication and cultural awareness. Third, methodology: the teaching methods of language necessitate using mixed methods of teaching as well as creating contexts for practicing language to attain the optimum outcomes. Fourth, teacher-learner relationships: in the language classroom, there are more formats of communication including teacher-student communication and student-student communication. Furthermore, there is a space for students to work on themselves as a form of personal development and communication. Fifth, although the students in the language classroom are studying other than their native language, they are always compared to the native speakers of the language. Sixth, teachers' characteristics: the language teacher ought to be characterized by creativity, flexibility, and enthusiasm. Seventh, training: a plethora of qualifications and international professional training courses are constructed for English language teachers. Eighth, status, foreign language teachers are always awarded lower scores than other teachers. Ninth, errors: errors are more tolerated by language teachers than the other subjects. Tenth, commercialization: the language teaching process in a myriad of cases is driven by financial factors more than other subjects.

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Consequently, specifying a definite number of competencies which ought to be possessed by language teachers has attracted the attention of educationalists and stakeholders. Jack Richards, a prominent figure in the field of teaching foreign languages, categorized the four language teacher competences under ten main competences (Richards, 2010) as follows: 1) the language proficiency factor; 2) the role of content knowledge; 3) teaching skills; 4) contextual knowledge; 5) the language teachers' identity; 6) learner-focused teaching; 7) pedagogical reasoning skills; 8) theorizing from practice; 9) membership of a community of practice; and professionalism.

For further clarification of knowledge and skills that ought to be possessed by the language teachers, several frameworks were developed. Utilizing such frameworks might "help teachers to identify where they are in their professional career and help teachers and their employers to think about where to go next and identify development activities to get there" (Cambridge English Teaching Framework [CETF], 2015, p. 2). Such frameworks aim at providing a base for career development as well as assessment purposes as follows.

- Cambridge English Teaching Framework (CETF, 2015): The framework was developed by Cambridge English outlining the main competences and skills that ought to be possessed by teachers to guide English language teachers in their professional development. The framework provides a road map for teachers' continuous professional development covering several domains such as planning, implementation and evaluation.

- National Board for Professional Teaching Standards (NBPTS, 2010): The framework was developed for the certification of accomplished educators. It encompassed five key standards, namely commitment to students, subject matter knowledge, monitoring the learning process, professional learning engagement, and collaboration with the learning process stakeholders.

- EAQUALS Profiling Grid for Language Teachers (EAQUALS, 2009): The framework was developed by the (Evaluation and Accreditation of Quality in Language Services) to assess the language teachers' competencies. The framework concentrates on the planning, implementation and evaluation of the teaching-learning process.

- EAQUALS Framework for Language Teacher Training and Development (EAQUALS TD Framework, 2016): The framework was developed to focus on the training of language teachers addressing a number of proficiency areas such as pedagogical knowledge, intercultural competence, and professional skills; the framework can be used as a framework for continuous professional development.

- European Profiling Grid (EPG, 2013): The framework was developed by the council of Europe addressing the training and the development of language teachers. The framework is aligned with the Common European Framework of Reference for Languages (CEFR). The framework is utilized in order to identify the areas of development and guide professional growth.

With this in mind, addressing the continuous professional development of the current generation of teachers necessitates utilizing innovative tools, studying training programs and making use of a myriad of resources for enhancing the teaching/learning process. AI tool implementation means benefiting from the automatization of tasks and the advancement of meaningful interactive learning. Furthermore, the adoption of such tools and activities means possessing the necessary knowledge and having the tailored programs relevant to their needs and preferences to be best implemented in the teaching-learning process and attain the optimum learning outcomes (Chica, et al. 2023; Flogie & Krabonja, 2023; Owan, et al., 2023). Another item of interest is the rapid changes which are instantly implemented and can be observed in the material world are experienced in every life aspect. Education 4.0, using digital technologies for personalized, connected learning in light of the Fourth Industrial Revolution, is an analogy and a response to the changing world as it is believed that the alignment

between humans and technology aims to enable new possibilities (Hussin, 2018). Subsequently, the integration of new technologies in the domain of education has an impact on the teachers; thereupon, functionalizing the knowledge and skills by teachers might guarantee optimum performance by teachers which in turn might be reflected in the students (Bardakci & Ünaldı, 2021).

Various AI technologies like, chatbots, adaptive learning platforms, and virtual teaching assistants and generative AI tools are employed by a plethora of educational bodies around the world. Coursera, a well-known MOOC platform, has already implemented AI tools and adaptive learning principles in its courses. AI powered educational systems can be used to decrease human bias during the teaching process starting from planning, implementation and evaluation (Marr, 2018).

In the context of language learning, AI tools encompass a plethora of tools and technologies such as machine learning, natural language processing, and adaptive learning environments. The utilization of such tools might provide higher levels of engagement among students, interactive practices, personalized practices and assessments. Furthermore, AI tools have the potential to develop critical thinking and problem-solving skills. On the other hand, the AI-powered tools with their different forms such as chatbots and generative AI tools can be easily integrated to develop the learning outcomes (Alhalangy & AbdAlgane, 2023; Negrila, 2023; Jayadurga & Rathika, 2023; Vogt & Flindt, 2023).

The notion of AI literate means the ability to comprehend, utilize and reflect on AI applications (Long et al., 2021; Ng et al., 2021). The term was first introduced in an online article in 2015 and was used after that in literature (Kandlhofer et al., 2016; Konishi, 2015). The term was preceded by a lineage of proposed literacies that addressed specific technological constructs such as "digital literacy" (Gilster, 1997), "media literacy" (Livingstone, 2004), and "data literacy" (Wolff et al., 2016). The term AI literacy incorporates the competencies which ought to be possessed by the general population targeting those without sufficient background in computer science. The term AI literate encapsulates a set of competencies for empowering individuals with the abilities to evaluate, communicate and collaborate in different contexts effectively (Long & Magerko, 2020).

More importantly, the contemporary continuous developments in the field of AI have empowered educators with ample tools and services aimed at enhancing the educational experiences presented to the students (Alam, 2021). Specifically, the recent few years witnessed a proliferation of educational tools which are designed to enable teachers to provide the best practices in the teaching process. Such aids enable the students to allocate the time they need and analyse the students' work to identify all the issues included within the classroom context (Holstein et al., 2018).

More importantly, AI tools offer several assisting tools for EFL teachers such as addressing the classroom challenges and providing feedback as well as providing error correction with custom-tailored content based on the learner's pace and learning preferences (Talukder, 2023; Yang, et al., 2024). The application of AI tools also guarantees future development via the self-learning techniques available as well as innovative practices and activities (Alhalangy & AbdAlgane, 2023).

AI tools can enable educators as well as students to streamline the educational process, improve the communication process, and save much time. One of the key aspects of AI tools is the personalization of the teaching-learning experience as such tools can provide adaptive means based on the intended learning outcomes, abilities, levels, preferences as well as experiences. AI tools can analyse the learning process history and provide reports about the accomplished and the unaccomplished missions (Majid & Lakshmi, 2022). The AI can enable the instructors as well as the educational institutions to automate the planning, implementation, and evaluation processes. The custom-tailored feedback can be streamlined to students targeting points specified precisely. AI tools assist teachers develop smart customized content for their students facilitating the teaching-learning process and adapting dynamically (Hwang, et al. 2020; Kuleto, et al. 2021; Liu, et al. 2021).

With this in mind, "The application of AI in the educational contexts raises profound questions, i.e., what should be taught and how, the evolving role of teachers, and AI's social and ethical implications. There are also numerous challenges, including issues such as educational equity and access. There is also an emerging consensus that the very foundations

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of teaching and learning may be reshaped by the deployment of AI in education." (UNESCO, 2021, p. 5). As AI tools interweave more and more areas of daily life; AI is venturing into the educational contexts (Chen et al., 2020; Hwang et al., 2020). Accordingly, the training of competencies in the field of AI is extremely relevant not only for future AI professionals, but also for those who are not computer scientists, mathematicians, or AI engineers themselves, since they will have to interact with these new technologies daily.

2. Literature Review

AI tools can revolutionize the teaching-learning process, especially in the realm of language learning. The adaptive learning experiences and the interactive learning environments enable access to a plethora of resources available (Rugaiyah, 2023).

Rugaiyah (2023) conducted a systematic review for exploring the services of AI in developing linguistic competencies of language teachers via the utilization of AI tools. The results of the review revealed the effectiveness of AI tools in developing linguistic abilities and broadening language knowledge, improving comprehension and enhancing speaking skills; thus, AI tools were proven to improve linguistic competence via personalizing learning experiences. Another study conducted by Zhang (2022) aimed to investigate cross-culture communicative competence via the adoption of AI tools. The results of the study revealed that EFL learners have limited knowledge of international competence. The study also revealed that AI tools have the potential to develop cross-cultural communications as well as increase the learners' awareness of the cultural aspects.

Ghafar, et al. (2023) investigated the positive impact of AI tools on developing linguistic competence. The study included several AI tools such as Google Translate, Text to Speech, and Duolingo. It was revealed that AI tools provide positive learning environments for language learning harnessing practical abilities such as writing, offering a trustworthy simulation as well as simulation dialogues similar to that of spoken English. Li (2022) conducted a study investigating the practical impact of AI tools in developing the teaching-learning process of language via providing instructive feedback. The results revealed that the

adoption of AI tools might enhance the teaching-learning process and provide constructive feedback for the teacher as well as the students which results in developing the efficient acquisition of language.

Al-Awawdeh, et al (2023) conducted a study to identify the challenges and prospects of integrating AI tools in the teaching/ learning of English as a foreign language at the university level. The study depicts the potential of AI tools in improving the students' performance and the teachers' efficiency. The study instrument, namely a questionnaire was administered in both Jordan and Saudi Arabia. It was revealed that the participants perceived that AI tools might enhance foreign language instruction at universities. Vogt and Flindt (2023) discussed the possible integration of AI tools in the process of teaching languages such as neural machine translation tools, chatbots and generative AI. It was revealed that teachers need comprehensive training to appropriately integrate AI tools in the teaching/ learning process. Furthermore, it was revealed that the field of AI is still in dire need of a plethora of investigations to identify the best practices in the teaching-learning process.

To reiterate, AI tools with their growing influence are being integrated into the educational process presenting a plethora of opportunities as well as challenges; thus, understanding their implications specifically for the teachers is critically significant for language learning. Moreover, the traditional practices in the educational process might not be suitable for the current area and with the current generation of learners in order to ensure effective integration of such tools as well as benefits maximizations; offering personalized learning experiences can optimize the learning outcomes and enhance the teaching efficacy. More importantly, addressing the challenges and raising the concerns using comprehensive analysis will enable the teachers to develop strategies that might ensure the ethical employment of AI tools in language education. Principally, this research aims to provide valuable insights into the existing literature about the influence of AI in language teaching. Such research might serve as a foundation for future empirical investigations exploring the benefits of AI tools in education.

3. Research Purpose and Significance

Academic professional development is a critical factor for every successful teaching practice, specifically when addressing the potential of new innovative practices in the field of education. Thoroughly analysing the impact of AI on linguistic competence might unveil the AI potential in the educational process for both the teacher and the students. Another point to be considered, examining the potential of AI tools, techniques and platforms might pave the way for improving the teaching practices effectiveness on the one hand, and the learning outcomes on the other hand; the recommendations based on the empirical evidence might empower the future teachers with the necessary knowledge and skills to promote the language teaching and learning process.

On the other hand, based on the EFL teachers' perspectives concerning the implications of AI on linguistic competence supported with empirical evidence, future teachers ought to attain the necessary knowledge and skills to integrate AI tools to develop language teaching learning practices. Another item of interest, the present research addresses a significant trend in education and participates in the ongoing fierce debate about the potential of AI for developing EFL teachers' teaching competence.

4. Problem and Questions of the Research

Although there is a growing interest existing concerning the integration of AI tools in the teaching learning process, there is a critical gap which ought to be filled concerning how the EFL teachers perceive the significance of utilizing such tools for developing their linguistic competence which might be reflected later on their performance with their students. The degree of teachers' perception also highlights the barriers that might restrain the best utilization of such tools. With this in mind, the present research seek to answer the following questions:

- To what extent do EFL teachers perceive that AI enhances their language teaching competence?
- How does the educational stage (primary – preparatory – secondary) influence the EFL perception of the role of AI in enhancing their language teaching competence?

5. Research Methodology

5.1   Method of the Study

The present research adopted the descriptive survey method due to its compatibility with the research nature as well as its appropriacy to attain the intended outcomes. Such a method enables comprehensive data collection and analysis in an organized manner. It also allows for examining the target research variables thoroughly and understanding the underpinning details systematically. The descriptive survey method includes collecting data from a large sample of teachers using questionnaires, which contributes to providing an accurate and comprehensive demonstration of their opinions and experiences. This approach enhances the ability to interpret the various aspects related to the study subject and to delve deeper into understanding the influencing factors (Creswell & Creswell, 2017).

5.2   Participants of the Study

The population of the present study comprises EFL teachers teaching at various educational stages: primary, preparatory, and secondary totalling 600 teachers as follows kindergarten (5), primary (247), preparatory (169), secondary (179). Those teachers were randomly selected from different educational backgrounds and geographic locations within the Northern Border Region, the Kingdom of Saudi Arabia. The study participants were 175 EFL teachers teaching different educational stages and levels. Precisely, a random sample was adopted for ensuring the generalizability of the results. The study participants have different educational experiences, backgrounds, and geographic locations in the Northern Border Region, Kingdom of Saudi Arabia. The randomness of the participants' selection ensures a comprehensive representation of the diverse educational contexts and professional experiences. The following table (1) depicts the participants and the educational stage they are teaching.

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Table 1: Distribution of study participants by educational stage (Primary, Preparatory, Secondary)

Stage	Number	Total
Primary	74	
Preparatory	62	175
Secondary	54	

6. The EFL Perceptions Questionnaire

A carefully structured five-point Likert scale questionnaire was developed based on a comprehensive review of relevant literature (Aydin, 2013; Chounta, et al. 2022; Gu, 2016; Siregar, et al. 2020; Zulkarnain, et al. 2023; CETF, 2015; EAQUALS TD, 2016; EPG, 2013; NBPTS, 2010). The final form of the questionnaire consists of five main dimensions based mainly on the Cambridge English Teaching Framework, namely learning and the learner, teaching, learning and assessment, language ability, language knowledge and awareness, professional development, and values, and 32 sub-items. The items of the questionnaire include details regarding the implications of AI tools linked to the competences of teaching languages. The participants' responses ranged to include not effective, slightly effective, moderately effective, remarkably effective and extremely effective so as to clarify the respondents' perspectives concerning the implications of AI tools in the EFL teaching context.

7. Validity and Reliability of the Questionnaire

The validity of the questionnaire was established by submitting it to a panel jury consisting of (11 experts and specialists in the field of TEFL Curriculum and Instruction and Instructional Technology). The jury provided their feedback on the questionnaire items, assessing its items appropriacy, clarity, and intelligibility to the subjects of the study and its significance in revealing the research-targeted information. The jury made some suggestions to improve the questionnaire: deleting, adding, or modifying the items. The necessary modifications were made so that the questionnaire was proved to be valid for administration in its final form. The reliability of the questionnaire was calculated using Cronbach's alpha coefficient which showed a high-reliability coefficient (α = 0.99) showing a higher degree of reliability. Moreover, for authenticating the reliability of the questionnaire, the sub dimensions, namely learning and the learner; teaching learning and assessment; language ability; language knowledge and awareness; and professional development and values were also calculated revealing 0.89, 0.93, 0.97, 0.91, 0.95 respectively, indicating the reliability of the questionnaire. More importantly, the ethical considerations were thoroughly followed in the data collection process. The participants' agreement concerning taking part in the research were taken into account, and they were informed about the research purpose. The participants were informed that their participation is voluntary, and their responses will not be used except for research purposes. Conducting the research, furthermore, was approved by the Ethics Review Board at the faculty.

8. Procedures for Conducting the Research

Procedurally, the EFL teachers, and study participants, were invited to participate in the study through email invitations distributed to educational institutions and professional networks. The questionnaire was administered electronically using the Google Forms survey platform to facilitate data collection from a geographically diverse sample of EFL teachers during the second semester of the academic year 2023/2025. Participants were provided with a link to the questionnaire as well as the instructions to be completed. They were told that their participation will remain confidential and will not be used except for research purposes. More importantly, a set of statistical techniques were used, namely Pearson correlation coefficient, percentages and arithmetic means.

As indicated, a five-point Likert scale questionnaire was employed in order to attain the participants' perception concerning the usage of AI tools in the English language teaching-learning process. The following table (2) illustrates the boundaries, maximum and minimum for the dimensions and items of the five-point scale.

Table 2: Ranges and categories of the Likert scale

Category	Level of Agreement	Range
Strongly Disagree	Very Low	1.00-1.80
Disagree	Low	1.81-2.60
Neutral	Medium	2.61-3.40
Agree	High	3.41-4.20
Strongly Agree	Very High	4.21-5.00

9. Results of the Study

The present study sought to exhibit the EFL teachers' perceptions in the Northern Borders Region, KSA about the roles of AI tools in fostering language teaching competencies which might be automatically reflected in the teaching-learning process. Attaining the results of the study necessitates adopting various statistical techniques encompassing statistical means and standard deviation as well as frequencies, ranking, and the One-Way Analysis of Variance (One-way ANOVA).

To answer the first research question articulating "To what extent do EFL teachers perceive that AI enhances their language teaching competence?" the questionnaire was submitted to the participants, and their responses were statistically analysed as follows in table (3):

Table 3: EFL teachers' perspectives on AI's impact on language competence

No.	Item	Mean	SD	Agreement	Rank
D1	**Learning and the learner**	**3.29**	**0.86**	**Average**	**5**
1.	AI can augment my comprehension of various learning theories.	3.34	1.31	Average	7
2.	AI can assist me in distinguishing between FLA and SLA.	3.27	1.22	Average	26
3.	AI can assist in employing different language teaching methodologies.	3.29	1.29	Average	19
4.	AI can aid in recognizing the distinctive needs and characteristics of FL learners.	3.21	1.29	Average	32
D2	**Teaching, learning and assessment**	**3.32**	**1.23**	**Average**	**2**
5.	AI can support in planning language lessons efficiently.	3.29	1.35	Average	19
6.	AI can assist me in developing efficient language courses.	3.32	1.32	Average	14
7.	AI can help in functionalizing diverse learning materials effectively.	3.36	1.25	Average	6
8.	AI can enhance my use of teaching aids to accelerate language learning.	3.41	1.31	High	1
9.	AI can increase my employment of digital resources for language teaching.	3.38	1.31	Average	3
10.	AI can empower me with efficient strategies to maintain a positive learning atmosphere in my classroom.	3.33	1.37	Average	9
11.	AI can help me meet the needs and queries of my students.	3.33	1.34	Average	9
12.	AI can support in efficiently managing activities for language learning.	3.28	1.33	Average	24
13.	AI can help me improve the quality of the feedback I provide to my students.	3.27	1.33	Average	26
14.	AI can boost my teaching effectiveness across various language skills.	3.32	1.35	Average	14
15.	AI can assist in utilizing proper assessment principles in language education.	3.27	1.28	Average	26
16.	AI can help me effectively utilize evaluation data to adjust my teaching strategies.	3.25	1.28	Average	30

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D3	**Language ability**	**3.31**	**1.23**	**Average**	**4**
17.	AI can support me in utilizing proper language for effective classroom communication.	3.26	1.30	Average	29
18.	AI can help present accurate language models for my students.	3.33	1.28	Average	9
19.	AI can help me address learner errors efficiently.	3.37	1.29	Average	4
20.	AI can facilitate collaboration with other language professionals.	3.33	1.30	Average	9
21.	AI can assist me accurately in determining the CEFR levels of my students' language proficiency.	3.22	1.30	Average	31
D4	**Language knowledge and awareness**	**3.34**	**1.20**	**Average**	**1**
22.	AI can raise awareness and understanding of language features.	3.34	1.27	Average	7
23.	AI can help me in using appropriate terminology to describe language features effectively.	3.33	1.24	Average	9
24.	AI can improve access to and utilization of reference materials for language teaching.	3.32	1.28	Average	14
D5	**Professional development and values**	**3.32**	**1.22**	**Average**	**3**
25.	AI can enhance my professional development via classroom observation.	3.29	1.29	Average	19
26.	AI can aid me reflect on my teaching practices.	3.39	1.26	Average	2
27.	AI can aid me reflect on the outcomes of student learning.	3.30	1.27	Average	18
28.	AI can assist me in planning my professional development activities.	3.28	1.33	Average	24
29.	AI can assist me in implementing my professional development activities.	3.31	1.27	Average	17
30.	AI can enrich my activities related to language education research.	3.37	1.29	Average	4
31.	AI can promote teamwork and collaboration among language educators.	3.29	1.32	Average	19
32.	AI can assist me in accomplishing my professional roles and responsibilities effectively.	3.29	1.31	Average	19

The above table reveals that EFL teachers perceive that AI tools are moderately beneficial in FL teaching and learning processes. Generally, the highest scores were in the dimensions of "Teaching, Learning, and Assessment," and "Professional Development and Values." However, the lowest score was in the "learning and the learner" dimension.

Meticulously, the mean score for the first dimension "learning and the learner" which came in the fifth rank is 3.29 with a standard deviation of 0.86 which means a moderate level of agreement. Likewise, the participants opine that AI tools could augment their comprehension concerning the different theories of learning (M=3.34, SD=1.31) as well as such tools assist in differentiating between the first and the second language acquisition (M=3.27, SD=1.22). The statistical analysis results revealed that although teachers perceive that AI tools guarantee the development of the teaching-learning process, there is room for future development. On the same line, the mean score of the second dimension "teaching, learning, and assessment" which came second among the other dimensions is 3.32 with a standard deviation of 1.23. Teachers concur that AI can enable them to best use of the teaching aids for accelerating language learning (M=3.41, SD=1.31) as well as increasing the utilization of digital resources (M=3.38, SD=1.31). Such attained results highlight the significance of AI tools in developing the various aspects of teaching, learning and assessment.

The mean score of the third dimension "language ability" which came in the fourth rank is 3.31 with a standard deviation of 1.23 which means a moderate level of agreement. The participants confirmed that AI can be utilized to maintain effective classroom communication (M=3.26, SD=1.30) as well as provide effective linguistic models for the participants (M=3.33, SD=1.28). Such findings underscore that while AI tools might be beneficial and effective in the development of the teaching-learning process, they have not been fully realized as effective tools yet.

The mean score of the fourth dimension "language knowledge and awareness" which was ranked first with a mean score of 3.31 and a standard deviation of 1.23 which means a moderate level of agreement. Teachers believe that AI tools are significantly favourable in raising awareness and enabling the learners to comprehend the unique features of language (M=3.34, SD=1.27) as well as using the appropriate language terminology (M=3.33, SD=1.24). Such results verified that teachers believe that AI tools are salient in harnessing awareness about language. The mean score of the fifth dimension "professional development and values" which was ranked third with a mean score of 3.32 and a standard deviation of 1.22 which means a moderate level of agreement. The participants pinpointed that AI tools can assist in reflection concerning teaching practices (M=3.39, SD=1.26) as well as providing schemes and plans for professional development and activities.

To answer the second research question articulating "How does the educational stage (primary – preparatory – secondary) influence the EFL perception about the role of AI in enhancing their language teaching competence?", the researcher adopted One-Way Analysis of Variance (ANOVA) to check the participants' perceptions regarding the role of AI tools across different educational stages (primary – preparatory – secondary). The ANOVA test was applied to the five dimensions, namely learning and the learner, teaching, learning and assessment, language ability, language knowledge and awareness, and professional development and values, as well as the overall questionnaire. The variance source was divided between group and within group and the significance level was calculated for each dimension.

Table 4: ANOVA results on EFL teachers' perceptions of AI's impact on teaching competence

Items	Source of Variance	Sum of Squares	Degree of Freedom	Square Means	F Value	ρ Significance
Learning and the learner	Between Groups	1.01	2	0.50	0.68	0.50
	Withing Groups	127.08	172	0.73		
	Total	128.09	174			
Teaching, learning and assessment	Between Groups	0.07	2	0.03	0.02	0.97
	Withing Groups	262.62	172	1.52		
	Total	262.69	174			
Language ability	Between Groups	0.21	2	0.10	0.07	0.93
	Withing Groups	262.8	172	1.52		
	Total	263.02	174			
Language knowledge and awareness	Between Groups	0.05	2	0.02	0.01	0.98
	Withing Groups	250.99	172	1.45		
	Total	251.05	174			
Professional development and values	Between Groups	0.81	2	0.40	0.26	0.76
	Withing Groups	259.13	172	1.50		
	Total	259.94	174			
The total questionnaire	Between Groups	0.17	2	0.08	0.06	0.93
	Withing Groups	231.79	172	1.34		
	Total	231.96	174			

Primarily, the disclosed data provided in the above table (3) reveals that for the first dimension "learning and learner" the F-vale was 0.68; the ρ-value was 0.50 indicating no statistically significant differences between the three groups (Primary – Preparatory - Secondary). Similarly, concerning the second dimension "teaching, learning, and assessment," the F-value was 0.02 with a p-value of 0.97 assuring also that there is no statistically significant difference between the groups. On the same line, the F-value of the third dimension "language ability" was 0.07 with a ρ-value of 0.93 confirming that there are no statistically significant differences between the groups.

Concerning the fourth dimension "language knowledge and awareness", the f-value was 0.01 while the ρ-value was 0.98 suggesting no statistically significant differences between the groups; the f-value of the fifth dimension "professional development and values" was 0.26 and the ρ-value was 0.76 demonstrating also no statistically significant differences between the groups. To conclude, there are no statistically significant differences between the groups in all the dimensions of the questionnaire as well as the overall of the questionnaire. Meticulously, all the ρ-values according to the ANOVA test results were greater than 0.05 exposing that the educational stage of the respondent has no effect on their perceptions concerning the influence of AI tool's role in enhancing language teaching competence.

In conclusion, the analysis of the EFL teachers, respondents of the present study, revealed a moderate level of agreement regarding the positive influence of AI tools in developing the language teaching-learning process. Furthermore, the results of the study showed no statistically significant differences in terms of EFL teachers' perceptions considering the educational stages regarding the impact of AI on their teaching competences.

10. Discussion of the Results

Principally, the results of the current research revealed a moderate agreement among EFL teachers concerning the positive influence of AI tools on language teaching; there were no statistically significant differences among the responses of the participants taking into consideration the educational stage they are teaching; such an outcome corresponds remarkably with that of

Karataş, et al. (2024) and Marzuki, et al. (2023). Furthermore, such a moderate level of agreement among teachers might be due to the benefits attained from the pedagogical practices and their echoing with the recently adopted pedagogical practices in modern classrooms with the new generations of learners. The usage of AI empowers the teachers to adopt copious teaching assisting tools which might help in planning, implementing and evaluating the educational practices taking into account that such tools attracted the students themselves due to the superb services provided by AI tools; such interpretation matches significantly that of De la Vall and Araya (2023) and Farrelly and Baker (2023).

AI tools enable teachers to utilize the power of collaboration and interaction which might boost their competences. The new AI-powered platforms enable teachers to reach copious instructional materials and assessment tools which might be implemented easily in the teaching-learning process. AI technologies guarantee materials sharing and innovative pedagogical instruments. The results are highly congruent with many studies such as Alyammahi (2020) and Fitria (2021).

Another point to be considered is the absence of statistically significant differences among the teachers teaching the three different learning stages entails that the services provided by AI tools vary to include the three educational stages and promise equitable access to a variety of instructional materials and services suitable for all the educational levels. Providing different learning tools and services means catering to diverse learners' needs and preferences in all the learning stages; such data is consistently in line with that of Song, et al. (2024).

As the study reveals a moderate level of agreement concerning the positive influence of AI tools, it also opens the door for further explorations and investigations by future researchers in order to reach a cut-and-dried answer to the questions posed by the present research. Such findings highlight the dire need for continuous professional development and regular updates for the teachers which echo with the recent innovations, services and tools that can be effectively implemented in the teaching-learning process and harnessing the full potential of utilizing AI tools in language education; such results are in perfect harmony with that of Chen, et al. (2020); Kim, et al. (2022); and Murphy, (2019).

Another item of interest, such moderate level of agreement among EFL teachers about the potential of AI tools in education necessitates initiating training programs. The educational stakeholders should prioritize providing opportunities and training courses for teachers to familiarize and harness their skills in terms of best utilizing AI tools in education and developing their proficiency in terms of using such tools. More importantly, educational institutions ought to allocate efforts to use AI-driven teaching and assessment resources to meet the learners' preferences and needs in the currently evolving world. AI tools with the personalized learning experiences provided and the diverse learning styles catered can be a feasible promising alternative to the traditional tools and practices in the educational context. With this in mind, the outcomes are well in accordance with that of Alam (2021) and Fakhar, et al. (2024).

On the other hand, although many studies underscored the positive contributions of AI tools in developing language teaching, many studies provide opposite findings. For instance, a study conducted by Zhang et al. (2024) confirmed that the overuse of AI tools lead to dependency on them so as to accomplish different tasks which negatively impacts their higher mental skills such as critical thinking, creative thinking and evaluation skills. Furthermore, Nyaaba et al. (2024) highlighted that the integration of AI tools in the teaching learning process might pose some stress on those of lower socioeconomic backgrounds who may not be able to access technology. On the other hand, Diene (2024) confirmed that the usage of AI might reinforce bias in the teaching learning process where inequality among students can be clear due to the impact of AI which means a dire need for human intervention in the teaching learning process in order to ensure a degree of bias.

11. Research Conclusions

The current research pinpointed that EFL teachers generally recognize AI tools as beneficial; on the other hand, they perceive their potential in developing their teaching competence as moderate in general. Teachers believe AI tools are more impactful in developing their teaching skills related to "teaching, learning, and assessment" and "professional development and values". Furthermore, AI was effective in developing classroom practices

and facilitating growth. The dimensions of "learning and the learner" were ranked lowest indicating that the role of AI in administrative and pedagogical aspects appears underdeveloped. Another point to be taken into account, there were no statistically significant differences in the teachers' perceptions taking into account the grade level they are teaching. Subsequently, the EFL teachers perceive yet cautious attitudes toward AI in EFL teaching; in other words, teachers believe that AI tools are beneficial, yet their benefits are limited.

12. Research Implications and Recommendations

The research findings underscore many implications for the integration of AI in the educational context. Teachers might value AI in professional development; however, they find it less impactful in the development of the teaching learning process. Regarding professional development, educational policymakers should implement professional development programs to empower EFL teachers with the necessary knowledge and skills in the teaching-learning process. Such professional development can take the form of mentorship programs where professional educators can guide their counterparts through seminars and workshops to best utilize the AI tools in the teaching-learning process and continuous professional development. Another point to be considered is the similarity among the teachers based on the different teaching grades underscores the versality of such tools to be suitable for different contexts and fields.

Based on the study findings, a plethora of recommendations seem pertinent in order to encourage the integration of artificial intelligence tools in the development of teaching competences. Considering curriculum development, the curriculum designers and developers should consider integrating AI tools in the curriculum by making use of AI-powered activities and assessment tools at various educational stages: primary, preparatory, and secondary. Another related item, collaborative efforts should be considered among teachers in order to share experiences and develop educational outcomes. The revolution in the field of AI should be considered by educational institutions and large-scale cooperation efforts should be guaranteed to AI tools developers might produce custom-tailored tools and applications for developing the EFL

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teachers' teaching competences. The teachers' needs and challenges should be taken into account by those developers to maximize the outcomes of such tools' usage. Furthermore, the infrastructure needed for best utilizing the AI tools must be provided by the educational institutions such as internet connectivity, computer devices, smart boards and technical support must be provided by educational institutions. In other words, the lack of differences.

13. Research Limitations:

The results attained were based on a questionnaire for collecting data; however, employing qualitative analysis using mixed method research based on the self-reports, interviews, classroom observations would provide more reliable and status-quo-linked situations for uncovering the perceptions of teachers concerning the employment of AI tools in the teaching learning process. Concerning the generalizability of the research findings, the research was conducted in a single country in a specific region and gaining broader perceptions concerning the usage of AI tools might help in gaining broader insight concerning the usage of AI tools.

14. Suggestions for Further Research

Based on the results attained and the discussion provided, the following avenues seem pertinent to be pursued by the EFL future researcher:

- Conducting an empirical study investigating the effectiveness of AI tools in developing the language teaching competences and the students learning outcomes.
- Undertaking exploratory research investigating the emerging AI tools in the field of language education.
- Carrying out cross-disciplinary research collaborating among language educators, AI researchers, and technology developers to formulate an AI-enhanced language education.
- Developing training programs for language educators to empower them with the new methods of integrating the AI potential in language education.
- Conducting a study surveying the EFL teachers' needs related to the integration of AI tools in the teaching-learning process.

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