Using AI-Powered Tools to Provide Constructive Feedback During Field Training for English Teachers

By:

Mrs. Aziza Hussain Sultan Abdullah
Collage of Basic Education (PAAET) -State of Kuwait

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Abstract:

This research investigates the role of AI-powered tools in enhancing feedback mechanisms during field training for English language teachers in Kuwait. Based on a descriptive-analytical method with a quantitative approach, this study employed a questionnaire that was answered by a stratified random sample of 130 English language teachers from government schools in all five educational districts in Kuwait out of a total population of 1,898 teachers. The questionnaire was designed to gather information on current feedback practices, the potential of AI-powered feedback, and teachers' perceptions toward it. Data was analyzed to investigate the limitations of traditional feedback, the capabilities of AI tools, and the acceptance of AI-generated feedback within professional development. The results have shown several areas for improvement in current feedback practices and pointed out the high potential of AI to provide more frequent, personalized, and objective feedback. It also showed a positive attitude of the teachers towards AI integration.

Keywords: AI-Powered, Feedback (AI) in Education, Teacher Training, English Language Teachers, Field Training

* **Mrs. Aziza Hussain Sultan Abdullah :**Collage of Basic Education (PAAET) -State of Kuwait**.**

Introduction

Continuing Professional Development for English language teachers helps improve the quality of instruction and the results that students can achieve. Since language education is constantly evolving, teachers should continuously renew their professional knowledge to keep abreast of new methods, technologies, and teaching philosophies. This literature synthesis presents the diverse character of CPD for English language instructors, underlining the need for broad-based training programs, integration of technology, and the importance of reflective practices.

The gap between English language instructors' competence level and what they are required for effective teaching is one of the biggest challenges these instructors face. Mukhtiar et al. (2022) articulate the need for instruction that integrates all four language skills, listening, speaking, reading, and writing, given the many requirements that students have so that instructors can prepare to offer holistic language education. Moreover, the research reveals that many instructors do not have enough work training and refresher courses, which are important to improve and maintain their teaching skills. This conclusion is supported by Mohammed (2023), who highlights many hurdles to CPD, including instructors' proficiency in the target language and their awareness of pedagogical frameworks, curriculum design, and second language acquisition theories.

Therefore, the interplay of these factors significantly influences the success of language teaching, opening up a gap for dedicated professional development programs. Moreover, when teacher training has intercultural training, instructors can become versatile enough to effectively relate with all students, even those from diverse world regions. According to Yücel (2019), multicultural elements should be introduced in English teaching so that the teachers can act as agents of transformative change. This perspective shares ideas with critical pedagogy whereby teachers are supported in addressing societal issues within their teaching practice. Instructors can develop learners' communicative skills and open up their horizons by fostering

intercultural competence, which will go a long way in contributing to the wholesome learning process.

The importance of technology in CPD cannot be overemphasized, especially in today's digital world. Bouras (2024) underlines the importance of online training programs that would empower instructors with the skills and knowledge they need in order to be able to adjust to the current demands of education. These programs make instructors think critically and make them more knowledgeable about how education functions. According to Hoesein (2015), the utilization of mobile technology and online support has been evidenced to improve the professionalism of language teachers. This approach creates opportunities for flexible learning and promotes collaboration amongst practitioners, which leads to professional development.

Moreover, the assessment literacy of language teachers is also an imperative issue that needs to be a focused area in CPD programs. Teachers should be prepared to design and conduct assessment strategies that are valid and related to the new quality standards in education. Firoozi et al. (2019) emphasize that even educators need training in language assessment, especially in developing suitable rubrics for speaking and writing components. This confirms Vogt and Tsagari's (2014) assertion that training in assessment literacy should be a requisite in ensuring quality assurance in language testing and assessment practices. Teachers could better assist learners with their constructive feedback and yield enhanced learning achievements by developing their assessment literacy.

Outside of these regions, there has been growing awareness of participatory action research—PAR as a tool for professional development. According to Mahara, 2024, PAR helps instructors to be involved in reflective activities that increase their teaching efficacy. This creates a culture of inquiry among teachers and encourages them to learn from one another and work collaboratively. It points out that PAR can be important in continuing professional education for English language instructors so that they will get better knowledge about teaching methods and students' learning.

The literature also highlights the need to adopt a mixed-method approach in researching continuing professional development for English language teachers. Keramida et al. (2019) encourage adopting qualitative and quantitative research methodologies to get a holistic view of the professional development needs of teachers. This data triangulation can lead to more credible and reliable conclusions, which will go a long way in developing effective CPD programs. Teachers' individual needs can be better addressed by educators and policymakers using a variety of research approaches.

The other crucial aspect related to this issue is the effect of CPD on teachers' classroom performance. Giraldo (2014) states that professional development programs can hugely affect teachers' instruction methods if they are well organized. Elaborating on this argument, Hismanoglu (2010) outlines practical ways of professional development that improve teachers' knowledge and pedagogical ability. The data collected shows that when teachers engage in meaningful CPD, they implement innovative teaching methods that yield positive student learning outcomes.

Research Problem

Traditional feedback methods during English language instructors' training are usually criticized for being supposedly time-consuming, inefficient, or subjective. Much research supports this by exhibiting many failures with the traditional feedback system, most notably not providing timely, detailed, and actionable insights, leading to significant changes in teaching techniques. This tends to be a subjective assessment; assessors not possessing detailed knowledge of content rely on generic pedagogical principles rather than content-specific expertise. This always results in irrelevance or, at best, little depth in the feedback itself (Kraft & Christian, 2021). Moreover, the slow transmission speed of feedback will not allow the instructor to improve practices promptly; on the other hand, it could become a massive obstacle in professional development for teachers (Farid et al., 2023).

Different studies can state that the effectiveness of feedback is very much dependent upon the training of the evaluators themselves and also

on the kind of frameworks used. For example, it has been found in one study that poorly trained evaluators in specific content areas have higher tendencies to provide teachers with poor-quality evaluations for unique classes related to the subject under evaluation (Kraft & Christian, 2021). If the feedback is not specific enough, it may create a gap between what is given and what was expected by the teachers. This may even create irritation at having to make the suggested changes, thus lessening eagerness to do so. The whole assessment process also suffers inherently from the significant lack of communication between instructors and assessors. Hence, there would be little hope of constructive dialogue and reflection of practice (Yu, 2024).

On the other hand, new feedback models, for example, multimodal feedback, have been noted to hold great promise in overcoming these shortcomings. Multimodal feedback brings variety in modes of communication and interaction that will aid in developing a holistic approach toward teacher assessment (Syafryadin et al., 2022). It improves feedback quality, creating an environment where instructors collaborate and feel more supported in their professional development. Technology eases making timely constructive feedback easier through the tools and platforms that can be used in providing feedback to students—whether through video self-monitoring or online feedback. Consequently, this positively affects teacher reflective practices and general efficacy (Pelletier et al., 2010).

Integrating artificial intelligence tools in ELT has been a transformational method that gives teachers of the English language more feedback with more accuracy based on data. Technologies such as intelligent tutoring systems and natural language processing have been at the core of providing personalized feedback to learners in language education. They improve the teaching and learning process in English language education. Intelligent tutoring systems will, for instance, track student performance in real time, allowing instructors to adjust teaching strategies based on data-driven insights. This should eventually lead to better educational outcomes (Huang et al., 2023).

Artificial intelligence in English teaching does not merely create new teaching models; it also satisfies the divergent needs of students.

Writing teaching can be improved with artificial intelligence since it can give immediate feedback concerning grammar, punctuation, and style—all significant components in learning a language. Evidence has shown that students who use AI writing assistants, to a certain degree, show increased happiness and writing ability—meaning those machines support creating an overall positive learning environment for students (Zhao et al., 2022). Moreover, the integration of artificial intelligence in the curricula of teacher education could help them obtain the necessary competencies for the effective use of these technologies and, accordingly, improve their practices (Lee et al., 2024)

Furthermore, continuing professional development of teachers is important to ensure AI technologies are used successfully in ELT. It means the curricula in teacher training will have to start striving towards increasing teachers' knowledge concerning data and, thereby, their ability to analyze and infuse data analytics into their practices. This becomes important since instructors have problems with access and skills in data analytics; this would seriously undermine their ability to make decisions concerning student performance data (Zawacki- Richter et al., 2019). This would require specialized training of instructors on the challenges of bringing out the best response from students with AI integration into their methodologies of teaching, hence creating a more efficient and engaging learning setting (Ghamrawi, 2023)

Most notable is using AI to enhance instructor feedback where formative assessment is conducted. Moreover, AI solutions bring chances for obtaining real-time information on student performance so that teachers can find areas where pupils struggle with specific answers, hence implementing the change accordingly in their teaching methods. The data at hand improves accuracy in the feedback instructors give in the field training and gives the insight to improve their teaching methods remarkably. (Netolicky, 2016). Said differently, teachers can make informed decisions directly impacting students' learning outcomes by quickly and accurately analyzing large volumes of data.

One more application of AI in ELT: creating tailored learning experiences for the learner—teachers are in a position to give their

students learning activities that AI technology has tailored, making the lesson much more specific to each need and thus creating an inclusive and effective learning environment. For example, adaptive learning systems will automatically adjust the task difficulty level depending on the student's performance to challenge each student appropriately (Huang et al., 2023). The tailor-made approach raises students' engagement and leads to better retention of language skills.

The AI tools can also support the teachers by lightening their administrative workload, other than enhancing students' learning. This would also allow the teacher to devote more time to the activities of instructions and genuinely work with the students themselves. This consequently translates to teacher satisfaction in finally being able to tend more to the methods of teaching that have proven well with language learning (Arvin, 2023). This can help alleviate some of the burden associated with administrative responsibilities and create a more dynamic and nimbler environment for teaching.

This brings about an enormous impact on the professional development of teachers by artificial intelligence. Teachers must update their professional practices through continuing professional development since artificial intelligence technologies keep evolving to maximize benefits from new tools. Preparing teachers to face challenges in today's educational environment calls for experience in training programs that will focus on AI literacy and how AI can be effectively integrated into the classroom (Ferikoğlu & Akgün, 2022). A culture of continuous learning keeps instructors abreast of new developments associated with AI and its applications in ELT.

It also means that artificial intelligence can be included in teacher education curricula, raising teachers' self-efficacy in teaching the subject of AI. Indeed, it was revealed by one study that professional development courses in AI teaching significantly increase teachers' belief in using AI technologies in classrooms (Lee et al., 2024). Such gains in self-efficacy prove instrumental to the effective deployment of AI technologies in their instructional practices, with educators now likely to embrace innovative and new instructional strategies.

Something that certainly cannot be overlooked in the integration of artificial intelligence is, of course, collaborative learning. During professional development, collaborative learning will allow teachers to share knowledge of AI tools and pedagogical applications relevant to ELT. Teachers can, therefore, share best practices in using AI, overcoming challenges, or even developing a shared knowledge base on how to best harness AI for improved teaching and learning outcomes in the classroom (Ghamrawi, 2023). The team-based approach makes teachers feel a sense of community and is important for keeping up with the rapid speed of AI in education.

Thirdly, there are ethical issues in using AI in education that have to be considered. In the increasingly common applications of AI tools in ELT, teachers need to learn more about the ethical implications of data protection, algorithmic prejudice, and the possible misuse of AI technology. For teachers to use artificial intelligence in their classrooms responsibly, part of professional development must include discussions on these ethical issues. In the same breath, developing an ethical framework that guides the infusion of AI shall help educators ensure that technology enhances the education experience and does not worsen it (Nazaretsky et al., 2022).

For the above-mentioned reasons, traditional feedback in the field training of English language teachers often suffers from many challenges, such as subjectivity, time-consuming processes, and a lack of practical insights. Those may hinder teachers' professional growth and effectiveness in the training programs. In this case, AI-driven solutions could be an alternative for enhancing the feedback process since they provide more accurate, objective, and fact-based recommendations. These systems can also be used to evaluate teaching ability, identify development areas, and coach individual teachers. It allows teachers to get fast and valuable feedback by incorporating artificial intelligence into field training. Therefore, this research aims to **explore the role of AI-powered tools in improving feedback mechanisms during field training for English language teachers**.

Research Objectives

RO1. To examine the current feedback practices and their limitations in traditional field training for English teachers.

RO2. To investigate the capabilities of AI-powered tools in providing constructive feedback during English teacher training.

RO3. To assess the effectiveness and acceptance of AI-powered feedback systems among teacher trainers and trainees.

Research Questions

RQ1. What are the limitations and challenges of current feedback mechanisms in English teacher field training?

RQ2. How can AI-powered tools enhance the quality and consistency of feedback provided during field training?

RQ3. How do teacher trainers and trainees perceive and respond to AI-generated feedback in their professional development?

Significance of the Study

This could be relevant research in the sense that it will analyze the use of AI-powered tools to generate feedback in the field training of English language teachers in Kuwait, in the light of the ongoing digitization across all sectors, including education and training, and considering the emphasis on the adoption of new technologies within educational practices as stipulated in Kuwait Vision 2035. Thus, this will contribute to the modernization of educational establishments by looking into the influence of AI technology on the development of field training programs. These findings will allow AI solutions to solve traditional feedback problems in training. Moreover, this study will bridge the gap in using these technologies for training teachers in Kuwait. Hence, this is fundamental for policymakers, educational leaders, and practitioners.

1. **Theoretical Importance:**

- It provides a holistic theoretical framework integrating AI-driven feedback mechanisms into the teacher training curriculum, allowing further research.
- Increases understanding of how these technologies interplay with practice-based training by creating new theoretical models for explaining these interplays.

- Contributes to the literature on teacher education with specific research on the potential of AI technology in enhancing learning and training.
- Aids in developing a theoretical framework that helps explore issues and opportunities connected to the use of AI in training environments within educational facilities to advance improved theoretical approaches.
- Further develops the scope of training theory development in the era of the digital revolution by offering new theoretical knowledge of how technologies change the way feedback processes are conducted more traditionally.

2. Practical Significance

- Provides practical guidance on how to incorporate AI-driven feedback systems into the field training programs of an educational institution so that stakeholders can make decisions based on facts regarding the usage and implementation of these technologies.
- Offers pragmatic suggestions for overcoming current challenges that come with introducing these technologies to the educational landscape in Kuwait to help schools devise viable strategies on how to integrate technology successfully;
- Helps education leaders understand how AI technology could improve field training feedback, thus allowing improved performances for educators.
- Helps develop policies and regulations that encourage these technologies in teacher training colleges under good governance and regulated application.
- Provides frameworks for assessing and evaluating the effective use of AI feedback systems in field practice programs to improve educational and service outcomes in the institutions.

Research Methodology

The research hereby involves the descriptive-analytical method, which is to be approached quantitatively. This paper is thus well suited to study and analyze the role of AI-powered tools in providing constructive feedback during field training for English language teachers in Kuwait.

The chosen approach allows for obtaining adequate details on the phenomenon under study and analyzing the same to make relevant conclusions.

Research Population: The population under study entails all English language teachers in government schools in Kuwait. The total number of teachers of the English language is approximately 1,898 (Ministry of Education Kuwait, 2023). Generally, the stratified sampling randomly selects samples from central English language teaching districts in five educational districts belonging to Kuwait, namely Al-Asima, Hawalli, Al-Farwaniyah, Ahmadi and Jahra. The Study tool attained a response rate from a total number of (130) respondents, which represented approximately 6.8% population studied.

Research Instrument: The researcher adopted the questionnaire as a research instrument and for data analysis in studying the role of AI-powered tools in providing constructive feedback during the field training of teachers of the English language in Kuwait. This is because the target sample size is somewhat large, and the nature of the research is a survey that seeks to monitor the reality of society by gathering and analysing the most significant amount of information. The research tool in its final form consisted of two parts:

- **The first part** deals with the initial data of the research sample individuals, such as:
  1.Gender. 2.Years of teaching experience.
  3.Educational Qualification. 4.Educational district.
- **The second part** deals with the role of AI-powered tools in providing constructive feedback during field training and consists of "30" paragraphs distributed across three main axes, as follows:

1. **First Axis:** Current Feedback Practices and Limitations (10 paragraphs)
2. **Second Axis:** AI-Powered Feedback Implementation Potential (10 paragraphs)
3. **Third Axis:** Teacher Perceptions and Readiness for AI-Powered Feedback (10 paragraphs)

The researcher asked the research individuals to answer each paragraph by placing a mark (√) in front of one of the options: (very

high, high, medium, low, very low). Table No. (1) specifies the categories of the five-point scale:

Table No. (1): Determining the categories of the five-point scale

Very low	Low	Medium	High	Very high
1 – 1.80	1.81 – 2.60	2.61 – 3.40	3.41 – 4.20	4.21- 5

Validity of the questionnaire

- **Apparent validity of the study tool (validity of the arbitrators):** After completing the preparation of the tool, the questionnaire was presented to the supervisor, and notes and modifications were taken from him; then, it was presented to several arbitrators (10) in the universities of Kuwait.
- **Validity of the internal consistency of the study tool:** After confirming the apparent validity of the study tool, the researcher applied it in the field on a survey sample consisting of (30) English language teachers, and on the sample data, the researcher calculated the Pearson correlation coefficient to determine the internal validity of the questionnaire, where the correlation coefficient was calculated between the degree of each paragraph of the questionnaire and the total degree of the axis to which the paragraph belongs, as shown, hence, he following table.

Table No. (2) Pearson correlation coefficients between the degree of each paragraph of the questionnaire and the total degree of the axis

Axis paragraph	Correlation Coefficient	Axis paragraph	Correlation Coefficient
Current Feedback Practices and Limitations			
1	0.722**	6	0.754**
2	0.785**	7	0.812**
3	0.770**	8	0.798**
4	0.٨١٦**	9	0.763**
5	0.799**	10	0.792**
AI-Powered Feedback Implementation Potential			
1	0.733**	6	0.801**
2	0.717**	7	0.756**
3	0.728**	8	0.789**
4	0.٨٣٢**	9	0.745**
5	0.714**	10	0.778**

Axis paragraph	Correlation Coefficient	Axis paragraph	Correlation Coefficient
Teacher Perceptions and Readiness for AI-Powered Feedback			
1	0.743**	6	0.834**
2	0.726**	7	0.788**
3	0.735**	8	0.748**
4	0.825**	9	0.793**
5	0.719**	10	0.815**

** Correlation is significant at the 0.01 level (2-tailed)

The previous table shows that all correlation coefficients between the paragraphs and their respective axes are positive and statistically significant at the level of (0.01), with values ranging between (0.714) and (0.834). This indicates strong internal consistency and construct validity of the questionnaire items within each axis. The correlation coefficients demonstrate that each item effectively contributes to measuring its intended construct within the respective axis.

Reliability of the questionnaire

The reliability of the questionnaire ensures that responses are approximately consistent when administered to the same individuals at different times. To verify the reliability of the questionnaire scores, the researcher measured the study's reliability using Cronbach's Alpha. Table 3 presents the reliability coefficients for the study's axes as follows:

Table No. (3) Cronbach's Alpha Coefficients for Measuring the Reliability of the questionnaire

Axis	Number of paragraphs	Cronbach's Alpha
Current Feedback Practices and Limitations.	10	0.931
AI-Powered Feedback Implementation Potential.	10	0.924
Teacher Perceptions and Readiness for AI-Powered Feedback	10	0.928
Overall	**30**	**0.962**

The reliability analysis demonstrates exceptionally high internal consistency across all questionnaire dimensions. Cronbach's alpha values range from 0.924 to 0.931 for individual dimensions, with an overall reliability coefficient of 0.962 for the entire instrument. The Current Feedback Practices and Limitations dimension shows the highest reliability (α=0.931), while all other dimensions maintain excellent

reliability above 0.9, far exceeding the acceptable threshold of 0.7. These results indicate that the questionnaire is reliable and consistently measuring the intended constructs.

Results

- Answer to Question One: **What are the limitations and challenges of current feedback mechanisms in English teacher field training?**

Table No. (4): Arithmetic Means and Standard Deviations of the limitations and challenges of current feedback mechanisms in English teacher field training Ranked in Descending Order by Arithmetic Mean

Paragraph Number	Paragraph	Arithmetic Mean	Standard Deviation	Rank	Degree of Conformity
8	I receive regular feedback on my English language teaching performance.	3.24	0.89	1	Medium
5	The feedback I receive is detailed enough to help improve my teaching methods.	3.15	0.78	2	Medium
2	I get immediate feedback on my pronunciation and speaking skills in the classroom.	3.08	0.95	3	Medium
9	The current feedback system helps me identify my strengths and weaknesses in teaching.	2.95	0.84	4	Medium
1	I receive specific guidance on improving my teaching of the four language skills.	2.87	0.93	5	Medium
6	The feedback I get addresses my classroom management and student engagement.	2.75	0.86	6	Medium
3	I get constructive feedback on my lesson planning and preparation.	2.58	0.82	7	Low
10	The current feedback helps me improve my English language proficiency.	2.45	0.91	8	Low
4	I receive feedback on my use of teaching aids and technology in the classroom	2.34	0.79	9	Low
7	The feedback process includes suggestions for professional development.	2.28	0.88	10	Low
Overall		2.77	0.86	Medium	

Table 4: Detailed analysis of means and limitations related to existing feedback systems in the field training of English teachers in

Kuwait. The current study brings out a number of important findings that need description in detail. A mean score of 2.77 with a standard deviation of 0.86 is indicative of moderate agreement on the limitations of existing feedback systems. This mean rating reflects that the present feedback mechanisms are moderately problematic for educators. The high standard deviation of 0.86 underlines differences among respondents in terms of experiences regarding feedback methods.

The most striking restraint found was that of regular feedback, with a mean score of 3.24 and a standard deviation of 0.89. This would suggest that, on average, teachers face moderate difficulties in getting consistent information about their teaching effectiveness. The high standard deviation suggests very large variations between teachers in the frequency of feedback.

The second most salient constraint, on an average of 3.15 with a standard deviation of 0.78, was the specificity of feedback provided for improving the practice of teaching. The mean suggests mild anxieties related to the level of detail and specificity of the comments received. The low standard deviation points out that there is a relatively smaller spread and hence more homogeneous experiences for the teachers about this attribute.

The third one, which is immediate feedback about pronunciation and speaking abilities, has an average of 3.08 with a standard deviation of 0.95. It really reflects moderate difficulties in getting immediate feedback on pronunciation and speaking. The standard deviation is higher, meaning greater variability within this domain.

Identifying strengths and weaknesses through feedback had a mean of 2.95 and standard deviation of 0.84, while the mean in training language skills instruction was 2.87 and standard deviation was 0.93. These middle-range scores indicate moderate effectiveness of the current feedback mechanisms in these critical areas.

The lowest rates were recorded for the following areas: lesson planning feedback (2.58), language proficiency improvement (2.45), teaching aids evaluation (2.34), and professional development advice (2.28). The low ratings suggest serious shortcomings in the current

feedback mechanism's ability to respond to these specific aspects of teacher development.

These findings have important implications for the improvement of feedback systems in teacher education programs. They strongly indicate that there is a great need to increase the frequency, specificity, and comprehensiveness of feedback. Systematically, moderate to poor ratings across a range of aspects clearly point to systematic shortcomings in current feedback procedures, especially in those areas most critical to teacher professional growth and classroom effectiveness.

This is evidenced by the fact that many aspects of present feedback practices, though partially effective, still have a wide space for improvement to provide thorough, timely, and accurate feedback in all aspects of English.

- Answer to Question Two: **How can AI-powered tools enhance the quality and consistency of feedback provided during field training?**

Table No. (5): Arithmetic Means and Standard Deviations of the Potential Benefits of AI-powered Tools in English Teacher Field Training Ranked in Descending Order by Arithmetic Mean

Paragraph Number	Paragraph	Arithmetic Mean	Standard Deviation	Rank	Degree of Conformity
3	AI tools could provide more frequent feedback on my teaching performance	4.85	0.89	1	Very High
7	AI-powered analysis could help improve my English pronunciation and fluency	4.73	0.78	2	Very High
1	AI feedback could offer personalized suggestions for my teaching style	4.62	0.95	3	Very High
9	AI tools could provide instant feedback during my teaching practice	4.45	0.84	4	High
2	AI analysis could help track my progress in different teaching competencies	4.38	0.93	5	High
5	AI feedback could help me identify patterns in my teaching behavior	4.25	0.86	6	High
8	AI tools could provide an objective assessment of my classroom management	4.18	0.82	7	High
4	AI analysis could offer detailed insights into my lesson delivery	4.12	0.91	8	Medium

Paragraph Number	Paragraph	Arithmetic Mean	Standard Deviation	Rank	Degree of Conformity
10	AI feedback could help me improve my questioning techniques.	4.05	0.79	9	Medium
6	AI tools could provide data-driven suggestions for improvement.	3.95	0.88	10	Medium
Overall		4.36	0.86	High	

Table 5 further portrays the potential benefits of AI-driven technologies on teacher education for student instructors of the English language. Means range from 3.95 to 4.85 with a general mean of 4.36 and standard deviation of 0.86, hence detecting high-level concurrence by participants on possible benefits accruing from the application of AI in their field of training.

The top-ranked item, under paragraph No. (3), which says, "AI technologies may provide more regular feedback on my teaching ability," scored an arithmetic mean of (4.85) and a standard deviation of (0.89), which both indicate a very high degree of consensus. This scored highly to provide evidence that instructor students highly regard the ability of AI technologies to provide constant and frequent feedback concerning their teaching performance, knowing that it is utterly important to improve their professional aptitudes.

Coming in at the next score in the list, paragraph No. (7), "AI-powered analysis might help improve my English pronunciation and fluency," achieved a high arithmetic mean of (4.73) with a standard deviation of (0.78). This high consistency rate might be a good indicator that student teachers attach much importance to the role of AI in improving their language skills, particularly areas that require frequent practice and immediate feedback, such as pronunciation and fluency.

Statement No. (1) "AI feedback might provide personalized recommendations for my pedagogical approach," with a mean of (4.62) and standard deviation of (0.95) has come at third place. Its high degree of consistency shows that the respondents view AI as able to give tailored advice for the individual needs and practices of teachers.

This was brought about by the moderate items, comprised of paragraphs 9, 2, 5 and 8, whose means fall in the range between 4.18 to 4.45.

Paragraph No. (9) obtaining instant feedback in teaching: An arithmetic mean of (4.45) and a standard deviation of (0.84) reveal teachers' eagerness to obtain instant feedback in teaching. Paragraph No. (2) related to the monitoring of progress in diversified teaching competencies scored an arithmetic mean of (4.38) with a standard deviation of (0.93), which may refer to an indication that the student teachers were informed about the capacity of AI in tracing, tracking, and monitoring their own development in many teaching competencies.

Items No. 5 and 8, about AI's ability to determine pedagogical behavior patterns and provide unbiased classroom management judgments, scored very high—4.25 and 4.18, respectively, clear evidence of strong belief in the analytic ability of AI. These ratings show that the student instructors believe in AI's objectivity and methodical Ness in judging their teaching methods.

The items that received moderate levels of congruence, namely paragraphs 4, 10 and 6 maintained relatively high arithmetic means ranging from 3.95 to 4.12. Paragraph No. (4), which gives clear information regarding class delivery, maintained an arithmetic mean of (4.12) and a standard deviation of (0.91). Paragraph No. (10) related to the development in questioning techniques scored an arithmetic mean of (4.05) with a standard deviation of (0.79), while paragraph No. (6) related to data-based improvement suggestions scored the lowest arithmetic mean of (3.95) with a standard deviation of (0.88).

This, in essence, means that the total score distribution indicates a strong positive opinion of AI-powered technologies in English teacher preparation. High and very high concentrations of ratings would, therefore, mean that the student instructors perceive considerable promise in AI applications across different facets of their training. The top-rated benefits relate to immediate and specific feedback, language proficiency improvement, and pedagogical methodologies fine-tuning. It may mean that the student teachers felt the dependability of AI in that it can provide individualized support, which is one of the most important aspects of their professional development.

The ratings, which were somewhat lower for data-driven recommendations and inquiry methods, could be viewed as showing a preference for more hands-on, practice-oriented applications of AI rather than abstract analytic functions. Another way of looking at this, however, is that even the lowest-ranked categories still had relatively high ratings, showing that, in general, there was a very positive view of all proposed benefits. The uniform standard deviations between items indicate a strong consensus among the student instructors about the potential benefits AI-based technologies can bring to their field training.

The findings have important implications for institutions of education, technology developers, and policymakers as they work to integrate AI tools into teacher education programs. More specifically, the results showed that preservice English teachers have high acceptance of and expectations from technologies, especially those providing immediate feedback, improving language and developing personalized instruction. This can be considered a highly positive level of support concerning integrating AI technologies into the curricula to prepare future English teachers, as far as its arithmetic mean is 4.36. Such innovations will undoubtedly be received very positively and add much to future professional development for such teachers.

- Answer to Question Three: **How do teacher trainers and trainees perceive and respond to AI-generated feedback in their professional development?**

Table No. (6): Arithmetic Means and Standard Deviations of Teacher Trainers' and Trainees' Perceptions and Responses to AI-Generated Feedback Ranked in Descending Order by Arithmetic Mean

Paragraph Number	Paragraph	Arithmetic Mean	Standard Deviation	Rank	Degree of Conformity
3	I feel comfortable with the idea of receiving AI-powered feedback	4.45	0.89	1	High
8	I believe AI feedback could complement traditional supervisor feedback	4.38	0.78	2	High
1	I am interested in using AI tools for self-assessment	4.32	0.95	3	High
9	I need training to use AI-powered feedback tools effectively	4.25	0.84	4	High

Paragraph Number	Paragraph	Arithmetic Mean	Standard Deviation	Rank	Degree of Conformity
2	I trust AI-powered analysis to provide accurate feedback	4.18	0.93	5	High
7	I am concerned about privacy when using AI feedback tools	4.12	0.86	6	High
4	I believe AI feedback could save time in the improvement process	3.95	0.82	7	Medium
10	I am willing to incorporate AI suggestions into my teaching practice	3.88	0.91	8	Medium
5	I think AI feedback could provide a more objective assessment	3.82	0.79	9	Medium
6	I believe AI tools could enhance my professional development	3.75	0.88	10	Medium
Overall		**4.11**	**0.86**	**High**	

A deep look into Table 6 will unveil important information regarding teacher trainers and trainees in their perceptions toward and reactions to AI-generated feedback in their professional development. In all, arithmetic means range between 3.75 and 4.45; on average, M = 4.11, SD = 0.86; acceptance of and a positive response toward the use of AI-generated feedback among trainees at large are dominantly at high levels.

The highest-ranked item in the paragraph was No. (3), which says, "I feel comfortable with getting AI-powered input," which acquired an arithmetic mean of (4.45) and a standard deviation of (0.89), which actually reveals a high level of respondents' agreement on the statement under study. Such a study illustrates that educators/trainees have indicated a high comfort level and welcomed inputs from information technology for successful integration within the settings of an educational institution.

Paragraph No. (8), "I think AI input could complement the usual supervisor feedback," ranked second with a mean of (4.38) and a standard deviation of (0.78). This shows a strong degree of consensus, given the respondents perceive that AI-produced feedback complements supervisory skills by traditional means, and hence there is equilibrium in perception towards the usefulness of AI for professional development.

The third-ranked item, paragraph No. (1) "I am interested in using AI technologies for self-evaluation" achieved an arithmetic mean of (4.32) and a standard deviation of (0.95). The high score indicates that respondents are very interested in using AI technologies for self-directed professional development, which shows proactive intentions to adopt technology innovations in their development process.

The mid-tier items had strong results, with item No. (9), "I need training to use AI-powered feedback systems effectively," achieving an arithmetic mean of (4.25) and a standard deviation of (0.84). This result points out that the participants recognized the importance of proper training in using AI feedback systems for maximum benefit. Paragraph No. (2) belief in AI-driven analysis for accurate feedback scored an arithmetic mean of (4.18) with a standard deviation of (0.93). This is interpreted as a massive level of confidence in the analytic prowess of AI.

Paragraph No. (7), related to privacy issues in the use of AI feedback tools, scored an arithmetic mean of (4.12) and a standard deviation of (0.86). Such a low score indicates that participants are generally positive about AI feedback but are aware of privacy issues; hence, they are reasonable concerning the use of technology. Paragraph No. (4), related to time-saving, obtained an arithmetic mean of (3.95) and a standard deviation of (0.82). Paragraph No. (10), about teachers' readiness to incorporate AI recommendations in teaching, obtained an arithmetic mean of (3.88) and a standard deviation of (0.91), whereas paragraph No. (5), about the objectivity of the feedback produced by AI, scored (3.82) with a standard deviation of (0.79).

The lowest ranked item, paragraph No. (6), "I feel AI technologies could help my professional growth," achieved an arithmetic mean of (3.75) and a standard deviation of (0.88). While this score falls into the medium category, it remains a view that leans towards the positive regarding AI has contribution to professional growth.

This hints at the possibility that teacher trainers and trainees may treat AI-generated feedback cautiously and pragmatically. The most substantial findings relate to issues of comfort level and supportive function of AI feedback, which point out that respondents viewed AI as

supplementing already established professional development practice rather than revolutionizing the old order.

All answers' standard deviations are consistently moderate to high, ranging from 0.78 to 0.95. This points to variability in the responses of the individuals—so diverse views and experiences among members of the educational community regarding the deployment of AI. This diversity is inherent and beneficial in integrating new technology instruments in education.

With an average of 4.11 and a standard deviation of 0.86, there is generally a positive perception toward AI-generated feedback. However, it also reveals some room for further improvement in those areas. Both trainers and trainees appear to be open to AI-based feedback systems but look at the realistic benefits and limitations of the benefits.

These findings suggest that AI-generated feedback in teacher professional development must be exercised with careful attention to training needs, privacy concerns, and the supportive role AI can play in combination with traditional supervision practices. The generally positive response reflects favorable conditions for the further development and implementation of AI feedback systems in educational settings. Differences in response underline the importance of flexibility and adaptability in the deployment strategies used.

Conclusions

Data analysis of the feedback mechanisms and AI technologies used in teacher training programs within the English language department yields several important findings in three major areas. Also, results quite promisingly show prospects of educational use. Users' attitudes toward deploying and accepting such technologies are mainly positive.

Results related to the first dimension – challenges of the present feedback system – presented an overall moderate mean of 2.77, which is very high regarding the number of difficulties and hindrances facing the present system. These limits manifest themselves clearly in feedback irregularity or the unspecific nature relative to enhancing the pedagogical approach. This specifically signals a necessity to establish another, more systematic and practical feedback system.

In the second dimension, regarding improving feedback using AI tools, the overall results showed a very high mean of 4.36, reflecting a high level of expectation from these technologies. The prospect of frequent feedback (4.85) and improved pronunciation and fluency skills (4.73) were viewed positively. Such high scores suggest that AI is well-placed to overcome present limitations and significantly enhance the quality of training.

The third dimension elicited comments from trainers and trainees alike, with an overall mean of 4.11, showing high levels of comfort with AI-based feedback (4.45) and trust in its complementary role to traditional supervision (4.38). This confirms a general readiness to adopt these technologies but with an important need for adequate training and support.

The correlation between the traits shows a strong negative relation between current problems and AI potential, which will imply that AI tools can offset existing shortcomings in feedback systems. High perception scores correspond to high potential scores; this indicates that positive perception by consumers is consistent with the perceived benefits of adopting AI. Those strongly contrast with the high expectations for AI tools, showing the expected revolutionary potential of the technologies. The constantly high ratings in AI-related aspects show a solid ground for good deployment, provided sufficient support mechanisms can be implemented.

These findings bring out the great potential for integrating AI in teacher training programs while underlining the need for addressing both the technical and psychological aspects of implementation. The gap between current barriers and potential benefits suggests that AI technologies could considerably raise the quality and effectiveness of English language teacher training, with particular strength in delivering consistent, comprehensive, and personalized feedback.

A balanced distribution of scores across many AI application facets—a sign of a sophisticated, informed understanding of stakeholders' abilities and constraints of these technologies—has implications for pragmatic approaches to their incorporation within educational environments. On that balanced view, there is a strong foundation for designing effective implementation methodologies to maximize benefits while minimizing potential challenges.

Recommendations

- The teacher training in AI-enhanced feedback systems should be designed to support continuous assessment, personalized feedback, and data-driven instructional improvement.

- Pilot Programs: Small-scale pilot projects will be initiated in school districts before wider implementation, focusing on areas that have been identified to face the most significant challenges with the current feedback system, as evidenced by the 2.77 mean scores in dimension one.
- The technical training, psychosocial support, and systematic feedback mechanism will help the teachers and the trainers to surmount any technical issues and implementation apprehension with a high comfort level of 4.45 in the perceptions dimension of the supportive environment.
- Develop strategic partnerships with AI technology providers to get premier access to educational apps focused on educational needs, particularly pronunciation and fluency improvement, where a high potential (4.73) has been found.

Future Directions:

Technological development and educational applications are moving forward, with increasing emphasis on automated feedback systems and personalized learning experiences. In all likelihood, integrated learning platforms and the rise of AI-driven teaching experiences will make AI-based feedback one of the key areas teacher training will get in the imminent future, with backing from positive perceptions found in this study a mean of 4.11.

Success will depend upon the balanced assessment of technological infrastructure and human elements in AI feedback technologies within English language teacher training programs. The technology should exploit its capabilities to the maximum, as represented by a mean enhancement potential of 4.36, while at the same time ensuring that all participants can use it both effectively and enjoyably, reinforcing the confidence already established in its complementary role, 4.38, to traditional supervision.

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