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TEACHERS' PERSPECTIVES ON THE ROLE OF ARTIFICIAL INTELLIGENCE IN ASSESSING AND PROVIDING FEEDBACK ON ENGLISH WRITING SKILLS

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ABSTRACT

This study investigates Saudi university EFL teachers' perceptions of the role of artificial intelligence (AI) in assessing and providing feedback on students' English writing. Using a quantitative descriptive survey design, data were collected from 150 EFL instructors working in public and private universities across Saudi Arabia. The questionnaire examined teachers' experiences with AI tools, perceived effectiveness of AI-based assessment and feedback, trust and fairness concerns, comparisons between AI-generated and teacher feedback, and challenges related to implementation, ethics, and training. Findings indicate that teachers generally hold cautiously positive attitudes toward AI, recognizing its efficiency and accuracy in identifying grammatical and mechanical errors. However, they express reservations regarding AI's ability to assess higher-order writing skills, creativity, and contextual appropriateness. Teachers strongly favor a blended feedback approach that combines AI-generated feedback with human judgment. Concerns related to ethical issues, institutional policies, and professional training needs were also highlighted. The study concludes that while AI has significant potential to support EFL writing assessment, its effective integration requires teacher training, ethical guidelines, and institutional support.

KEYWORDS: Artificial Intelligence; EFL Writing Assessment; Teacher Perceptions; Automated Feedback; Saudi Higher Education.

1. INTRODUCTION

Writing is an essential academic skill and a fundamental requirement for success in higher education and research contexts. For learners of English as a Foreign Language (EFL), writing serves not only as a medium of academic communication but also as a key component in the development of overall language proficiency and communicative competence. Rae (2020, as cited in Ahmed et al., 2025) emphasizes that writing skills are indispensable for academic success, knowledge construction, and effective communication. Similarly, Ahmed et al. (2024) argue that writing enables learners to organize ideas, engage in critical thinking, evaluate information, and synthesize knowledge. Through writing, students reflect on what they have learned, generate new ideas, and enhance their command of the target language.

Despite its recognized importance, writing is widely regarded as one of the most challenging skills for EFL university students and has often received comparatively limited instructional attention. Ahmed (2025) notes that effective writing requires the integration of multiple linguistic and cognitive elements, including grammatical accuracy, lexical range, writing mechanics, and genre awareness. Oshima and Hogue (2007, as cited in Nguyen, 2023) further describe writing as a complex and recursive process involving planning, drafting, revising, and editing. Managing these processes simultaneously poses considerable difficulty for EFL learners, who frequently struggle with coherence, unity, and persistent grammatical, spelling, and punctuation errors.

Supporting students' writing development therefore remains a central concern in EFL instruction. Research indicates that limited instructional support, inadequate written feedback, and ineffective assessment practices significantly contribute to learners' writing difficulties (Gillies et al., 2020, as cited in Dong, 2023). Traditionally, writing instruction has relied heavily on teacher-provided feedback, which, although pedagogically valuable, is often time-consuming and subjective. Nevertheless, feedback is widely recognized as a crucial element of effective writing instruction. Su et al. (2023, as cited in Asadi et al., 2025) emphasize that timely and meaningful feedback plays a vital role in improving EFL learners' writing performance. Bitchener and Ferris (2012) further argue that effective feedback should move beyond surface-level error correction to address higher-order concerns such as content development, organization, and critical thinking. Despite this, many learners

continue to receive insufficient or generalized feedback, even in formal instructional settings (Lee et al., 2022, as cited in Asadi et al., 2025). In addition to pedagogical challenges, contextual constraints such as large class sizes and limited instructional time further restrict teachers' ability to provide individualized and timely feedback. Writing instruction requires substantial effort in designing materials, assessing student texts, and offering continuous feedback, which significantly increases teachers' workload. As a result, educators and researchers have increasingly explored alternative approaches to support writing instruction more efficiently. One such approach is the integration of artificial intelligence (AI) into writing pedagogy. Hasselgren and Jönsson (2020, as cited in Dong, 2023) note that AI applications are increasingly recognized for their potential to address challenges related to feedback delivery and assessment efficiency. Similarly, Liu et al. (2018, as cited in Dong, 2023) report that AI-assisted writing instruction can enhance students' writing abilities while reducing teachers' assessment burden.

The rapid expansion of digital technologies has further accelerated the adoption of AI in educational contexts. Haleem et al. (2022, as cited in Guhan, 2023) argue that digital tools have transformed traditional writing instruction by fostering more flexible and interactive learning environments. Within this evolving landscape, AI plays a growing role in contemporary writing classrooms. AI encompasses tools, software, and language models designed to support learners and instructors across various stages of the writing process (Akgun & Greenhow, 2022; Dong, 2023; Fyfe, 2023; Aljuaid, 2024). Popular AI-based writing tools such as Grammarly, Wordtune, and Google Translate assist students with grammar, paraphrasing, and lexical choice, thereby helping to overcome cognitive challenges and improve overall text quality. More broadly, the integration of artificial intelligence into educational settings reflects a global shift toward technology-enhanced learning and assessment practices. Zawacki-Richter et al. (2019), in their systematic review of AI applications in higher education, report that AI is most frequently employed for assessment, feedback provision, and learner support, particularly in large-scale instructional contexts. However, they also highlight that much of the existing research prioritizes technical efficiency over pedagogical and contextual considerations. This observation underscores the need for research that foregrounds educators' perspectives when examining the role of AI in educational assessment. A growing body of

research supports the pedagogical potential of AI in EFL instruction. Fitria (2021, as cited in Nguyen, 2023) argues that AI tools provide learners with increased opportunities for independent and continuous language practice. Similarly, Rafida and Ananda (2024) report that several studies have demonstrated the positive effects of AI tools on EFL writing performance and teaching effectiveness. According to Aljuaid (2024), AI writing applications are effective because they provide tailored responses, enhance learner motivation, and increase assessment efficiency. Raad et al. (2023) further note that tools such as Grammarly, QuillBot, and ChatGPT have become influential resources for improving the accuracy and quality of English writing. Beyond instructional support, AI-based tools are increasingly used for writing assessment and feedback. Bai and Hu (2017) and Li et al. (2021) argue that automated assessment systems can offer immediate feedback and facilitate formative assessment for large numbers of EFL learners. Research on digital feedback also suggests that technology-mediated feedback can enhance clarity, immediacy, and learner engagement when integrated effectively into instruction. Hojeij and Ayber (2022), for instance, found that digital feedback positively influences EFL learners' writing performance, particularly when used as formative support and accompanied by instructional guidance. This indicates that AI-generated feedback is most effective when complementing teacher feedback rather than functioning as a standalone evaluative mechanism.

Despite these advantages, concerns persist regarding the pedagogical adequacy of AI-generated feedback. Hyland and Hyland (2006) caution that automated systems may inadequately address higher-order writing skills such as organization, argumentation, and critical thinking. Warschauer and Ware (2006) similarly warn that excessive reliance on automated feedback may undermine teacher autonomy and professional judgment. In addition to pedagogical concerns, issues of trust, validity, and transparency have been widely discussed in relation to AI-based assessment systems. Gardner et al. (2021) argue that although AI-powered assessment tools offer consistency and efficiency, their educational value depends on the extent to which their evaluative processes align with pedagogical goals and disciplinary standards. In language learning contexts, where meaning, coherence, and discourse-level features are central, limited transparency may reduce teachers' confidence in AI-generated assessments. Kottaparamban et al. (2024) argue that alternative

media is crucial to modern social activity and frequently functions as the communication channels upon which networks are formed.

Although research on AI-assisted writing has expanded rapidly, relatively little empirical attention has been given to EFL teachers' beliefs and attitudes toward the use of AI in writing assessment and feedback, particularly in the Saudi Arabian context. Existing studies have largely focused on student outcomes or technical effectiveness, while teachers' experiences, concerns, and professional judgments remain underexplored. Addressing this gap is essential, as teachers play a central role in mediating, interpreting, and integrating AI-generated feedback into classroom practice. Accordingly, this study is guided by the following research questions:

1. How do EFL teachers perceive the effectiveness of AI tools in assessing students' English writing skills?
2. How do EFL teachers compare AI-generated feedback with their own feedback when assessing and providing feedback on students' writing?
3. What limitations do EFL teachers identify when using AI to provide feedback on students' writing?
4. What challenges do EFL teachers encounter when using AI tools for writing assessment?

2. METHODOLOGY

2.1. Research Design

This study employed a quantitative descriptive survey design to examine Saudi university EFL teachers' perceptions of the role of artificial intelligence (AI) in assessing and providing feedback on English writing. This design was selected as it is suitable for systematically investigating teachers' attitudes, beliefs, and professional judgments regarding AI-based writing assessment. A survey-based method allowed to gather data from a large group of EFL teachers and thus, to identify patterns, trends, and predominant attitudes toward the use of AI in writing assessment in this domain. The study relied exclusively on self-reported data, which is suitable for exploring teachers' viewpoints, levels of trust, and concerns related to emerging educational technologies, particularly those that may influence pedagogical control and teacher agency.

2.2. Participants

The participants consisted of 150 EFL instructors working in public and private universities across Saudi Arabia. The sample included teachers with varying academic ranks, qualifications, and years of

teaching experience to ensure a broad representation of perspectives within the Saudi higher education EFL context.

Participants were eligible for inclusion if they:

1. Were currently teaching English as a Foreign Language (EFL) at the university level in Saudi Arabia, and
2. Had experience teaching writing courses or incorporating writing assessment and feedback into their instructional practices.

Participation was voluntary, and all respondents completed the questionnaire anonymously to encourage honest and unbiased responses.

2.3. Research Instrument

Data were collected using a self-administered questionnaire specifically designed for the purposes of this study. The instrument aimed to cover different aspects of AI use in EFL writing assessment and feedback focusing on teachers' perception of effectiveness, comparison with human feedback, and perceived challenges.

The questionnaire included eight sections, as follows:

- Section A: Demographic and professional information
- Section B: Teachers' experience with and use of AI in EFL writing assessment
- Section C: Perceived effectiveness of AI in writing assessment
- Section D: Perceived effectiveness of AI-generated feedback
- Section E: Teachers' trust and confidence in AI-based assessment systems
- Section F: Comparison of AI-generated feedback and teachers' feedback
- Section G: Current challenges and drawbacks of using AI in Saudi EFL writing settings
- Section H: Training requirements, ethical considerations, and future applications of AI in writing assessment

Sections B-H included 35 Likert-scaled items and posed on a five-point scale (1 = Strongly Disagree, 5 = Strongly Agree). This scale was chosen to account for diversity in teachers' reactions but to ensure clarity and consistency for quantitative research.

In this study, the term "AI tools" refers to commonly used artificial intelligence-based writing support applications that assist with grammar correction, vocabulary suggestions, paraphrasing, and automated feedback generation. Examples of such tools include Grammarly, QuillBot, Wordtune, ChatGPT, and similar AI-powered writing assistants that are widely used in academic writing contexts.

Participants were asked to consider these types of tools when responding to questionnaire items related to AI-assisted assessment and feedback.

2.4. Validity and Reliability

To guarantee the content validity, the items of a questionnaire were generated after a comprehensive review of literature related to AI in language education, automated writing assessment as well as teacher feedback. Efforts were made to ensure that the items were oriented towards teachers' perceptions of AI-based feedback and assessment challenges in the Saudi EFL university setting. The items were carefully worded to avoid ambiguity and overlap between constructs.

Cronbach's alpha coefficients were calculated to assess the internal consistency of the questionnaire. Reliability coefficients for all sections of the questionnaire were higher than the commonly recommended cut off value of 0.70 (acceptable internal consistency). The overall reliability of the instrument was satisfactory, demonstrating its appropriateness for quantitative measurement.

2.5. Data Collection Procedure

The questionnaire was distributed electronically to EFL instructors working at Saudi universities. Participants were informed of the purpose of the study and assured that their responses would be used solely for academic research purposes. No identifying personal or institutional information was collected.

Respondents were given sufficient time to complete the questionnaire, and only fully completed responses were included in the final analysis. A total of 150 valid questionnaires were collected and included in the analysis.

2.6. Data Analysis

Data were analyzed using descriptive statistical techniques, including frequencies and percentages. Frequencies and percentages were computed for all Likert-scale items to elucidate teachers' response patterns and discern prevailing trends related to

- Perceived efficacy of AI in writing assessment and feedback
- Comparisons between AI-generated feedback and teacher feedback
- Levels of trust in AI-based assessment
- Challenges, limitations, and training needs associated with AI use

Descriptive analysis was considered suitable as the study sought to investigate instructors' perceptions rather than test causal relationships. The

findings were systematically arranged and presented in compliance with APA 7 standards.

2.7. Ethical Considerations

All ethical standards were followed by the author in this study. Participation was voluntary, and an informed consent was acquired from all participants. The anonymity and confidentiality of the participants was guaranteed, and no personal or institutional details were collected. The study was conducted according to the guidelines for educational and data privacy.

2.8. Methodological Limitations

However, since the responses to the questionnaire were self-reported, biased responses or positive skewness might have occurred. Moreover, the use of a quantitative design precluded gaining in depth insight into teachers' experiences, concerns, and professional reasoning related to AI implementation. These limitations are recognized and it is suggested that future research should integrate mixed-methods

or qualitative applications to achieve better understanding of teacher agency and classroom practices.

3. RESULTS AND DISCUSSION

This section introduces the results of the study derived from responses to 150 Saudi university EFL teachers. The findings are presented thematically according to the outline and flow of the questionnaire and in line with the study research questions. Frequency and percentage descriptive statistics are employed to summarize participant responses in all sections. The results are showcased with interpretative explanations to elucidate new themes regarding teachers' experience with AI, its usefulness in writing assessment and feedback, levels of trust/ethics, AI-generated vs teacher feedback comparisons and the challenges faced in integrating AI into Saudi EFL context.

Section A: Demographic and Professional Information (N = 150)

Table 1: Gender.

Gender	Frequency	Percentage
Male	90	60.0%
Female	55	36.7%
Prefer not to say	5	3.3%
Total	150	100%

Table 2: Highest Academic Qualification

Qualification	Frequency	Percentage
Bachelor's degree	25	16.7%
Master's degree	70	46.7%
Doctorate (PhD)	55	36.6%
Total	150	100%

Table 3: Academic Rank.

Rank	Frequency	Percentage
Teaching Assistant	20	13.3%
Lecturer	55	36.7%
Assistant Professor	45	30.0%
Associate Professor	20	13.3%
Professor	10	6.7%
Total	150	100%

Table 4: Years of EFL Teaching Experience.

Experience	Frequency	Percentage
1–5 years	40	26.7%
6–10 years	45	30.0%
11–15 years	35	23.3%
More than 15 years	30	20.0%
Total	150	100%

Table 5: Types of Institution.

Institution	Frequency	Percentage
Public university	110	73.3%
Private university	40	26.7%
Total	150	100%

Section A: Demographic and Professional Characteristics of Participants

This study involved 150 university EFL teachers working in Saudi universities. As for gender, most of the participants were male (60.0%), followed by female teachers (36.7%) and a small percentage who declined to provide their gender (3.3%). Regarding academic degree, more than a third had a master (46.7%) followed by the PhD (36.6%) and bachelors' degree accounts for 16.7%.

Regarding the academic ranks, lecturers made up the largest proportion (36.7%), followed by Assistant professors (30.0%). Teaching assistants represented

13.3%, associate professors: 13.3% and full professors: 6.7% of the sample.

Moreover, 23.3% had between 11–15 years, and 20.0% have greater than 15 years of teaching experience. In addition, 23.3% had 11–15 years, and 20.0% reported more than 15 years of experience. Most participants were employed at public universities (73.3%), whereas 26.7% worked in private universities.

Section B: Experience and Use of AI in EFL Writing Assessment

Table 6: Items 6–10.

Item	SD	D	N	A	SA
6. Regular use of AI	15 (10%)	25 (16.7%)	30 (20%)	50 (33.3%)	30 (20%)
7. Familiar with AI tools	8 (5.3%)	20 (13.3%)	22 (14.7%)	60 (40%)	40 (26.7%)
8. AI supports teacher assessment	5 (3.3%)	10 (6.7%)	20 (13.3%)	70 (46.7%)	45 (30%)
9. Confidence in using AI	10 (6.7%)	20 (13.3%)	30 (20%)	55 (36.7%)	35 (23.3%)
10. Understanding AI feedback generation	12 (8%)	28 (18.7%)	35 (23.3%)	50 (33.3%)	25 (16.7%)

Section B: Experience and Use of AI in EFL Writing Assessment

Results from Section B indicate that instructors generally demonstrated moderate to high familiarity with AI tools used for EFL writing assessment. Most respondents agreed or strongly agreed that they were familiar with AI-based assessment tools (66.7%) and used AI to support rather than replace their own assessment practices (76.7%). Similarly, over half of the instructors reported feeling confident using AI tools to assess students' writing (60.0%). However, responses were more mixed regarding regular use of

AI in actual assessment practices. Whilst 53.3% reported using AI tools on a regular basis 26.7% disagreed or strongly disagreed with this statement, showing a range in use across institutions and by individual readers. Teachers' perception of how AI produces assessment and feedback was fair with 50.0% agreeing, and a good part (27.4%) having no opinion about the issue, which might eventuate the necessity for additional teacher professional development.

Section C: Effectiveness of AI in EFL Writing Assessment

Table 7: Teachers' Perceptions of the Effectiveness of AI in Writing Assessment (N = 150).

Item	SD	D	N	A	SA
11. AI tools provide accurate assessments	10 (6.7%)	25 (16.7%)	35 (23.3%)	55 (36.7%)	25 (16.6%)
12. Identify grammatical & spelling errors	3 (2.0%)	7 (4.7%)	15 (10.0%)	65 (43.3%)	60 (40.0%)
13. Evaluate vocabulary use accurately	8 (5.3%)	20 (13.3%)	30 (20.0%)	60 (40.0%)	32 (21.4%)
14. Assess coherence & organization	20 (13.3%)	35 (23.3%)	40 (26.7%)	35 (23.3%)	20 (13.4%)
15. Improve assessment efficiency	5 (3.3%)	10 (6.7%)	15 (10.0%)	65 (43.3%)	55 (36.7%)

Section C: Effectiveness of AI in EFL Writing Assessment

Teachers have varied perceptions on the effectiveness of AI on dimensions of assessment. There was a clear consensus that AI can indeed recognize grammatical and spelling errors (83.3% either agreed or strongly agreed). Conversely, most participants believed AI was useful in enhancing the efficiency of writing evaluation (80.0%), which shows

its applicability to a university level context.

Opinions on whether AI could judge coherence and organization were more mixed; with 36.7 % agreeing, but only 36.6% disagreeing or strongly disagreeing.

Support for use of AI in assessment of vocabulary use and overall assessment accuracy was moderate, indicating that teachers understand AIs strengths in dealing with more formulaic features, but still

harbour concerns about its ability to assess for higher-order writing skills.

Section D: Effectiveness of AI-Generated Feedback for EFL Learners

Table 8: Teachers' Views on AI-Generated Feedback (N = 150).

Item	SD	D	N	A	SA
16. Helps recognize writing errors	5 (3.3%)	10 (6.7%)	20 (13.3%)	70 (46.7%)	45 (30.0%)
17. Feedback is clear & understandable	8 (5.3%)	15 (10.0%)	25 (16.7%)	65 (43.3%)	37 (24.7%)
18. Improves sentence structure	6 (4.0%)	14 (9.3%)	30 (20.0%)	60 (40.0%)	40 (26.7%)
19. Supports writing development	10 (6.7%)	20 (13.3%)	30 (20.0%)	55 (36.7%)	35 (23.3%)
20. Feedback is sufficiently specific	15 (10.0%)	30 (20.0%)	35 (23.3%)	45 (30.0%)	25 (16.7%)

D. Effectiveness of AI-Generated Feedback for EFL Learners

Results from Section D indicate that attitudes towards AI-based feedback are mostly positive. Majority of teachers found AI feedback useful for many reasons: it supports learners in identifying/recognizing their errors when writing (76.7%) and its comments are clear/easy to understand (68.0%). And 66.7% also agreed that AI provides helpful suggestions for the structure of

sentences.

Nonetheless, perceptions of feedback specificity were more negative. Only 46.7% agreed that AI feedback was sufficiently specific to assist with revision, while 30.0% disagreed. These results suggest that although AI feedback is perceived as helpful for error detection and clarity, its depth and contextualization may be perceived as limited.

Section E: Teachers' Trust and Confidence in AI Assessment

Table 9: Teachers' Trust in AI-Based Writing Assessment (N = 150).

Item	SD	D	N	A	SA
21. Trust AI-generated feedback	12 (8.0%)	28 (18.7%)	35 (23.3%)	50 (33.3%)	25 (16.7%)
22. Consistent with teacher evaluation	10 (6.7%)	25 (16.7%)	40 (26.6%)	50 (33.3%)	25 (16.7%)
23. Comfortable using AI formatively	15 (10.0%)	30 (20.0%)	30 (20.0%)	50 (33.3%)	25 (16.7%)
24. Consistent feedback across tasks	8 (5.3%)	20 (13.3%)	32 (21.4%)	55 (36.7%)	35 (23.3%)
25. Fair for diverse proficiency levels	18 (12.0%)	35 (23.3%)	40 (26.7%)	35 (23.3%)	22 (14.7%)

Section E results show moderate levels of trust in the assessment based on AI. Roughly half of respondents felt AI feedback was accurate with their self-assessment (50.0%) or consistent with their own evaluations (50.0%). Likewise, 50.0% felt reported feeling comfortable depending on AI for formative assessing objective. But there were concerns about fairness and accuracy. Only 38.0% said they were

confident that AI could objectively evaluate students of varying abilities and two-thirds disagreed. These results indicate that while teachers recognize some potential for AI, they do not entirely trust to give the power of judgment to an automated system.

Section F: Comparison Between AI Feedback and Teacher Feedback

Table 10: Teachers' Comparison of AI and Human Feedback (N = 150).

Item	SD	D	N	A	SA
26. AI feedback as detailed as teacher	25 (16.7%)	40 (26.7%)	35 (23.3%)	30 (20.0%)	20 (13.3%)
27. Teacher feedback more personalized	5 (3.3%)	8 (5.3%)	17 (11.4%)	60 (40.0%)	60 (40.0%)
28. AI better at technical errors	10 (6.7%)	15 (10.0%)	30 (20.0%)	55 (36.7%)	40 (26.6%)
29. Equal benefit from both feedback	20 (13.3%)	35 (23.3%)	45 (30.0%)	30 (20.0%)	20 (13.4%)
30. Combined feedback improves writing	3 (2.0%)	7 (4.7%)	15 (10.0%)	60 (40.0%)	65 (43.3%)

Section F: Comparing AI Feedback with Teacher Feedback

When AI-generated feedback was compared with teacher feedback, teachers unequivocally preferred human-generated feedback for being personally

tailored. Most respondents (80.0%) believed teacher feedback is better personalized compared to AI feedback. However, as noted by many teachers, AI proved to have an advantage in technical and mechanical errors identification (63.3% of

respondents believe that the technology is more accurate than teachers). Particularly noteworthy was the wide endorsement of a mixed feedback model where 83.3% agreed/strongly agreed that writing improves if AI feedback is combined with teacher

feedback. This finding highlights instructors' preference for AI as a complementary, rather than substitutive, tool.

Section G: Challenges and Limitations of AI Use in Saudi EFL Contexts

Table 11: Perceived Challenges of AI Integration (N = 150)

Item	SD	D	N	A	SA
31. Integration is challenging	10 (6.7%)	20 (13.3%)	35 (23.3%)	55 (36.7%)	30 (20.0%)
32. Institutional policies affect use	5 (3.3%)	10 (6.7%)	30 (20.0%)	65 (43.3%)	40 (26.7%)
33. Students hesitate to trust AI	8 (5.3%)	15 (10.0%)	35 (23.3%)	60 (40.0%)	32 (21.4%)
34. AI limits creativity	12 (8.0%)	18 (12.0%)	30 (20.0%)	55 (36.7%)	35 (23.3%)
35. Overreliance harms independence	5 (3.3%)	10 (6.7%)	25 (16.7%)	60 (40.0%)	50 (33.3%)

Section G: Challenges and Limitations of Using AI in Saudi EFL Contexts

Teachers had several concerns regarding the integration of AI. More than half also believed that incorporating AI tools into Saudi university EFL courses is difficult (56.7%) and institutional policies are instrumental in influencing AI use (70.0%). Another 61.4% said that some students are reluctant to trust feedback generated by an AI. Pedagogical

limitations were also noted as potential concerns. More than half of the participants believed that AI does not sufficiently address creativity in writing (60.0%), and overdependence on AI might influence students' independent learning abilities in a negative way (73.3%). These results emphasize the need for careful and guided utilization of AI.

Section H: Training, Ethics, and Future Use of AI

Table 12: Teachers' Views on Training and Future AI Use (N = 150).

Item	SD	D	N	A	SA
36. Need more AI training	3 (2.0%)	7 (4.7%)	15 (10.0%)	60 (40.0%)	65 (43.3%)
37. Ethical concerns influence use	5 (3.3%)	10 (6.7%)	30 (20.0%)	60 (40.0%)	45 (30.0%)
38. Universities need guidelines	2 (1.3%)	5 (3.3%)	13 (8.7%)	60 (40.0%)	70 (46.7%)
39. AI's future role will grow	3 (2.0%)	7 (4.7%)	20 (13.3%)	55 (36.7%)	65 (43.3%)
40. Intend to use AI more	5 (3.3%)	10 (6.7%)	25 (16.7%)	55 (36.7%)	55 (36.6%)

Section H: Training, Ethics, and Future Use of AI

Findings from Section H show high consensus on the importance of institutional support and training. Most (83.3%) stated that Saudi EFL teachers need training to use AI effectively. The consideration of ethical aspects such as fairness and data privacy has played a role in 70.0% of use cases examined by respondents to date. In addition, strong support for development of clear institutional policies were expressed by 86.7% of respondents. There was hope for the future of AI, with 80.0% expecting that EFL writing assessment would rely on AI system increasingly in the future. Likewise, 73.3% indicated that they would use the AI tools more in upcoming courses.

4. DISCUSSION

This study explored the attitudes of Saudi university EFL teachers towards the use of Artificial Intelligence (AI) in assessing and feedback generation on English writing. Collectively, the

results demonstrate a cautiously optimistic attitude in response to AI integration where educators acknowledge its pedagogical value, yet voice concerns related to trust, fairness, creativity and recognition of formal professional training.

4.1. Teachers' Experience and Perception of AI in Writing Assessment

The results suggest that most teachers have moderate to high familiarity with AI-based writing assessment and hold a perspective of AI as supportive rather than an alternative to teacher judgment. This aligns with prior research indicating that teachers are more open to AI if it is presented as an assistive technology increasing efficiency without challenging professional autonomy. Variability in regular AI use observed in this research may be due to variation in organizational policies, availability of AI tools and personal technology readiness among the Saudi universities. Instructors also only have limited understanding of how AI provides feedback,

which implies algorithmic opacity may still hinder full-scale adoption. This result is in line with similar research that highlights the positive appeal of AI, when its underlying operations and constraints are well-understood by educators.

4.2. Perceptions towards Effectiveness of AI on Writing Assessment

Agreement was strong among instructors for the effectiveness of AI in identifying grammatical, spelling, and mechanical errors: a reflection of the common claim that surface-level (that is syntactic) linguistic features are an area where AI surpasses human performance. This result is in line with previous studies that pointed to the strength of AI in rule-based and pattern-recognition tasks. Second, enhanced efficiency in assessment is also seen as a sign that AI could ease the workload of teachers in large classes at university level which has been an ongoing issue for higher education institutions in Saudi Arabia.

However, teachers were hesitant about artificial intelligence's capacity to recognize more sophisticated writing skills like coherence, organization and creativity. This hesitance reflects reports in EFL studies that automatic systems may underrepresent rhetorical nuance, discourse-level coherence and culturally grounded writing practices. This kind of constraints underscores the on-going need for human judgment with respect to academic writing assessment.

4.3. Effectiveness and Limitations of AI-Generated Feedback

The results indicate that AI-generated feedback is perceived as clear, timely and effective in helping students to identify errors and improve sentence-level proficiency. Such features are very useful in EFL learning, because students need instant feedback and repeated interaction with the new language.

Yet, teachers were skeptical about how detailed and in-depth the AI feedback is particularly with regard to guiding substantial revisions. This is consistent with earlier work showing that AI feedback, whilst being effective in terms of response time, can sometimes lack context-awareness and pedagogical nuance.

Therefore, AI feedback may be most effective in the drafting stage while teacher feedback provides more cognitive and rhetorical support at later stages of revision.

4.4. Trust, Fairness, and Ethical Concerns

Despite having a positive view of AI, teachers

were only slightly confident in assessments generated by AI. Issues of fairness – particularly when it comes to evaluating students who've been performing at such a wide range of levels – reflect broader ethical conversations about algorithmic bias and data representation. In the Saudi scene of EFL, such concern can become more prominent because learners' writings are linguistically and socially bound which AI systems might not reflect entirely. Ministerial ethics, such as data privacy and transparency, were discovered to play a crucial role in instructors' acceptance of AI. This reinforces the need for ethical frameworks and institutional safeguards to promote ethical AI adoption in higher education.

4.5. Artificial Intelligence Feedback Vs Teacher Feedback: Toward a Blended Approach.

One of the most significant results is the strong preference for blended feedback (AI + teacher). In the end, educators believed that human feedback was more personal and pedagogically responsive, but AI was better at tracking down technical errors. This symbiotic relationship indicates that AI should be situated as a co-teaching aid, rather than replacing human feedback. Such a hybrid system would dovetail with modern pedagogical paradigms which promote human-AI partnerships, in which AI automation takes care of repetitive tasks and human instructors can focus on higher-level instructional objectives.

4.6. Challenges in the Saudi EFL Context

In light of the contextual factors, there are numerous challenges to the integration of AI into Saudi universities: institutional barriers, policy indeterminacy and student mistrust in AI-generated feedback.

These issues could demonstrate the fluid state of AI implementation in the Saudi education sector, where technology progress is rushing but pedagogy incorporation is sporadic. Education experts have expressed concerns about excessive reliance on AI and its potential influence on students' independent learning, which mirrors the cautionary advice in literature about dependence on automatons. These findings suggest that pedagogies being developed to foster critical engagement with AI feedback are important and create impetus for students to question rather than passively accepting automated suggestions

4.7. Implications for Training, Policy, and Future Practice

The widespread agreement with the demand for professional training demonstrates that effective AI integration necessitates systematized faculty development. This type of training should be aimed at not only technical operation but also pedagogical use, ethical considerations and the analytical assessment of AI feedback. Moreover, the demand for transparent institutional rules highlights the crucial role that universities can play in promoting responsible AI use. In alignment with Saudi Vision 2030, which emphasizes digital transformation and educational innovation, Saudi universities are well-positioned to lead in developing context-sensitive AI policies that balance innovation with ethical responsibility.

In summary, the study demonstrates that Saudi university EFL teachers have an overall positive and optimistic attitude towards AI as a relevant and forthcoming part of future writing assessment practices. Though teachers appreciate AI's efficiency and technical precision, they stress the indispensable role of teacher judgment, customization and ethical oversight. The results argue for a balanced, informed and ethically sound adoption of AI where human expertise and AI can collaborate to improve EFL writing instruction.

5. IMPLICATIONS AND RECOMMENDATIONS

The current study has several of pedagogical, institutional and policy implications for the incorporation of AI in EFL writing assessment in Saudi higher education. These implications highlight the need for a fair, ethical, and pedagogically driven integration of AI.

5.1. Pedagogical Implications

The overwhelming preference for a combined feedback model implies AI as an additional learning aid, not a substitute for teacher feedback. AI tools can be used to deal with shallow-level writing problems like vocabulary, grammar, spelling and sentence structure so that EFL teachers can invest their time dealing with high-level skills such as argumentation, coherence or critical thinking. This specialisation of roles could increase feedback efficiency without compromising the depth of teaching. Mixed perceptions on the specificity of AI-generated feedback suggest the need to also educate students in how to critically engage with AI feedback. Instructors are advised to take a metacognitive approach with students and specifically guide them on how to appraise, interpret and apply AI suggestions selectively to resist a passive reliance on automated feedback.

5.2. Institutional Implications

The results emphasise the importance of universities in driving successful integration of AI. Institutions need to offer structured training for staff to improve technology skills, pedagogical background and ethical reflection about AI tools. This training should consist of hands-on workshop, cases based learning and continuous technical support. Furthermore, universities are advised to establish explicit institutional policies and guidelines on the use of AI for writing assessment. Such policies ought to cover acceptable use, transparency, data privacy and academic integrity for implementation by departments or programs to be consistent and responsible.

5.3. Implications for Practice and Further Research

The following recommendations are therefore suggested, as a result of the findings in this research study:

- Use a blended assessment approach with feedback generated by AI in conjunction with teacher evaluation.
- Offer regular professional development that covers the pedagogical, technical and ethical aspects of using AI.
- Institutional and national guidelines on the application of AI in writing assessment should be established.
- Promote learner AI literacy to empower them to critically analyze automatic feedback.

6. LIMITATIONS OF THE STUDY

Despite its contributions, this study is subject to several limitations that should be acknowledged. First, data were obtained using self-reported questionnaires, which are prone to social desirability bias or the subjective definition of AI use and effectiveness by participants. It follows that practices reported might be suboptimal reflections of what is happening in the classroom.

Second, the research design of the current study was cross-sectional in nature which is associated with assessing perception at one time point. This approach reduces the possibility of assessing changes in attitudes and actual practices as AI technologies evolve and/or instructors become more familiar/comfortable adopting AI tools.

Third, the participants in this study were Saudi EFL university teachers, and this might limit the external validity of results to diverse teaching contexts or domains. Such attitudes to AI in writing assessment could be shaped differently in other

settings due to institutional resources and language policies, as well as cultural contexts.

Lastly, the research only considered teachers' opinions and did not include students' results nor learners' views. Future work that makes use of other data sources, for example classroom observations along with writing samples and learner feedback.

7. SUGGESTIONS FOR FUTURE STUDIES

According to the results and limitations of this study, some recommendations for future research are proposed to develop a deeper comprehension of AI's role in EFL writing assessment, specifically within the Saudi higher education.

First, there is a need for studies controlling mixed method of qualitative research designs (e.g., interviews, focus groups and classroom observation) to supplement the results from surveys. Qualitative information would offer a more nuanced understanding of how instructors use AI tools in practice, the barriers they experience when trying to teach with them, and the pedagogical logic underlying their perceptions.

Second, studies should investigate the students' views on AI-produced feedback and the effects on their motivation, engagement and writing development. Addressing learner beliefs in conjunction with teacher perceptions would provide a more comprehensive picture regarding their integration of AI and opportunities for discrepancies between instructional plans and learners' lived experiences.

Third, longitudinal research would be useful in investigating for temporal changes (both positive and negative) on teachers' attitudes and practices, particularly as AI technologies develop over time and institutional policies become established.

These studies might follow the professional development of instructors, changes in trust over time and long-term pedagogical effects associated with continued use.

Fourth, further studies may use quasi-experimental and experimental research designs to compare the effectiveness of AI feedback, teacher feedback and blended models in teaching English writing for EFL learners.

A study of student writing quality across drafts would give empirical evidence of AI's pedagogical value, above and beyond self-report.

Fifth, future research should investigate these relationships with reference to different disciplines and proficiency levels.

Research that is focused on different types of academic genres, learners' proficiency levels or

backgrounds may uncover differences in perceptions and the uptake of AI feedback, with implications for more contextually specific pedagogic interventions.

Last, future research should explore any potential ethical, cultural and linguistic bias embedded in the AI-supported writing assessment systems especially in non-native English countries like Saudi Arabia. Studying how AI systems process culturally biased rhetorical patterns as well as language variation would provide insight into designing fairer and context-sensitive computational tools.

8. CONCLUSION

This study investigated Saudi university EFL teachers' perceptions of the use of artificial intelligence (AI) in assessing students' English writing and providing feedback on it. The findings indicate that teachers generally hold cautiously positive attitudes toward AI-assisted writing assessment, recognizing its efficiency and usefulness in identifying grammatical and mechanical errors. However, instructors remain cautious about AI's ability to evaluate higher-order writing skills such as coherence, argumentation, creativity, and contextual appropriateness.

A key contribution of this study is its evidence that teachers strongly support a blended feedback model, in which AI-generated feedback complements rather than replaces teacher feedback. In such an approach, AI can assist with routine linguistic corrections and rapid feedback delivery, while teachers maintain responsibility for deeper pedagogical evaluation, contextual interpretation, and guidance in the writing process.

The findings also highlight important implications for higher education institutions. Effective integration of AI into writing assessment requires structured professional training for teachers, clear institutional policies, and ethical guidelines addressing issues such as transparency, fairness, and data privacy.

Within the context of Saudi higher education and the broader goals of digital transformation outlined in Saudi Vision 2030, universities are well positioned to develop responsible and context-sensitive approaches to AI adoption in language education.

Overall, the study demonstrates that artificial intelligence has significant potential to support EFL writing assessment when implemented within a human-AI collaborative framework.

By combining the efficiency and immediacy of AI technologies with the pedagogical expertise of teachers, universities can enhance feedback practices while maintaining academic integrity and

supporting meaningful student learning.

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