

AI-Assisted Feedback in English Language Learning: A Contemporary Pedagogical Approach

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Abstract

AI is transforming feedback in ELL by providing quick, personal, and multimodal feedback on students' writing and speech. This paper reviews the concept of AI-assisted feedback as a modern pedagogical method—but not a replacement for the human judgement of the teacher. It advances a human-centred view of utilizing automated writing evaluation, generative AI, speech recognition, pronunciation analysis, and adaptive language-learning systems in alignment with formative assessment, sociocultural learning, self-regulated learning, feedback literacy, and technological pedagogical content knowledge. The study adopts an integrative review approach, analyzes existing literature on feedback scholarship in the context of AI-in-education research and English-language-teaching literature, and employs a qualitative approach. It states that by extending opportunities for iterative practice, noticing in real time, individual explanations, and autonomy, AI feedback can be a benefit in a situation where there is limited teacher feedback capacity and classroom time. But pedagogical value is contingent: it could be inaccurate, linguistically prescriptive, culturally biased, opaque, dependent, and privacy-invading, and it could be a source of academic dishonesty. The paper thus separates feedback generation from feedback uptake and suggests that the former can be achieved only when the learners interpret, verify, discuss, revise and transfer the feedback through purposeful teacher mediation. Two comparative tables and a cyclical framework list the functions of the tools, risks and design principles for the writing, speaking, grammar, vocabulary and pronunciation domains. The paper points out that there is a gap in research measuring short-term accuracy or user satisfaction that does not sufficiently take into account the transfer, feedback literacy, equity, and orchestration by the teacher and the AI. Its role is a responsible pedagogy, where AI helps to make feedback more accessible; and where humans continue to set the goals, standards, relationships, and consequential assessment.

Keywords: AI-assisted feedback; English language learning; formative assessment; feedback literacy; generative AI; learner autonomy; teacher mediation

1. Introduction

Feedback is a key component of language learning because it relates one attempt to another more effective language performance. But in English classes, providing useful feedback at scale is challenging. There must be an understanding of ideas, organization, word choice, grammar, genre, and audience for writing and comprehensibility, fluency, interaction, pronunciation, and pragmatic appropriateness for speaking. These decisions are a responsibility of teachers to make when responding to individual learners, managing time and maintaining motivation. AI seems to solve this limitation by creating explanations and recognizing patterns, creating models of alternatives, analyzing speech, and enabling "homework" sessions after class hours.

AI supported feedback is larger than just a chatbot. It has features such as automatic writing evaluation, grammar and style checking tools, adaptive tutoring systems, machine translation,

automatic speech recognition, pronunciation applications, conversational agents, and large language models. There are different kinds of these systems, which vary in the way that feedback is generated. Rule-based systems versus patterns, machine learning systems versus patterns, and generative systems versus prompts and context. As a homogeneous entity, these differences in reliability, transparency, data use, and pedagogical affordance are obscured.

Modern hype also may lead to an incorrect understanding of instant with learning. A correction that is given immediately can help to improve a sentence without helping the learner to recognize a later similar problem. There is a possibility that even a fluent explanation is incorrect; there is also a possibility that the apparently neutral rewrite will lose dialect, identity, rhetorical purpose, and/or legitimate language variation. At the same time, the ban on AI does not bring back the concept of an idealized pre-digital classroom. Keyboards, search engines, translation tools, captions and writing platforms are examples of places in which algorithmic language mediation is already present for the learners. Pedagogical questions are therefore not about the inclusion of AI in English learning, but about the design of feedback interactions, their teaching, monitoring, and evaluation.

The purpose of this paper is four-fold: to explain the possible forms of AI-supported feedback and its possible functions in the learning process; to connect existing feedback theory with current AI literacy; to analyse the benefits and risks in the case of each language skill separately; and to present a model of implementation that is mediated by the teacher. (1) When is AI generated feedback usable for formative assessment? (2) How can AI be used to assist the learner in writing, speaking, grammar, vocabulary, and pronunciation without taking away the learner's agency? (3) What are the roles that teachers and institutions should continue? The paper suggests that pedagogically valuable AI requires provocation of learner judgment and subsequent performance. The importance of it is to shift the perspective of AI from merely a machine that provides answers to one that is a purposefully limited actor in a feedback system.

2. Literature Review

2.1 Feedback, corrective feedback, and learner uptake

Feedback research in the field of formative assessment focuses on the ability to narrow the achievement gap between actual and desired performance. Black and Wiliam relate assessment to adaptation in the classroom, and Hattie and Timperley differentiate between questions regarding objectives, current performance, and future steps [1, 2]. Shute makes the point that good formative feedback must be: timely, specific, supportive, and focused on learning, not on ego [3]. Studies on written corrective feedback (WCF) for L2 writing have raised a series of problems for discussion, namely, direct vs. indirect correction, focus of feedback, learner proficiency, and transfer to new writing [4]. Hyland and Hyland also demonstrate that feedback is interpersonal, that is, the interpretations of the learners and the mitigation, praise, authority elements have an impact on how comments are received [5].

This literature sets the groundwork of an important distinction between information and uptake. The learner needs to observe that there is a problem, comprehend the explanation, make a judgment about whether or not it is applicable, make corrections, and then recall the information without the help of someone else. While AI can aid in the initial phases, it does not guarantee the later stages. Automated written corrective feedback research in this respect considers the errors detected as well as the engagement and correction performance of learners. The importance of

timing and tool performance is shown by Ranalli and Yamashita, and Godwin-Jones places intelligent writing assistance in the context of other language-learning activities [6, 7].

2.2 Artificial intelligence and English-language education

There have been some positive developments in the technical aspects of AI in higher education, as well as a lack of research on the role of educators, acknowledged in systematic reviews [8]. Generative AI made this discussion even more interesting by providing the opportunity for open-ended dialogue, feedback, examples, simulations and the rewriting of texts. Kasneci and colleagues discuss the opportunities for personalized support as well as accuracy, bias, privacy, overreliance, and assessment validity risks [9]. Kohnke, Moorhouse, and Zou highlight ChatGPT's teaching potential for language learning and underscore digital skills required for ethical and effective usage [10]. While recent studies on ESL/EFL have yielded positive learner perceptions and promising new opportunities for writing support, the evidence base is unevenly methodologically distributed and is constantly evolving.

The international landscape of guidance to date is increasingly focused on human agency, inclusion, transparency, data protection and age appropriateness in regards to using AI. UNESCO encourages an approach to education that is human-centred, in which learning institutions develop capacity instead of using tools because they are available [11]. In particular, this policy perspective is relevant to the teaching and learning of a language because learner texts and speech recordings can include personal information, accent features, beliefs and cultural identity. Feedback systems work then not just on linguistic form but on learner data and communicative personhood.

The current study is organized in four gaps. First, there is much research which assesses immediate correction, perceived usefulness or task performance but does not determine whether learners transfer the gains to unaided work. Second, tool-centred accounts are under specified because they don't explain how teachers choose tasks, how they design prompts, how they look at and interpret errors, how they intervene when AI answers disrupt curricular purposes. Third, writing is given more attention than interaction, pragmatics, listening, pronunciation and multi-lingual meaning making. Fourth, ethics is too frequently understood as an afterthought rather than as a design consideration that influences access, data collection, language norms and assessments. This paper aims to fill these gaps by synthesizing four elements of feedback uptake, teacher orchestration, cross-skill analysis and ethical governance into a pedagogical framework.

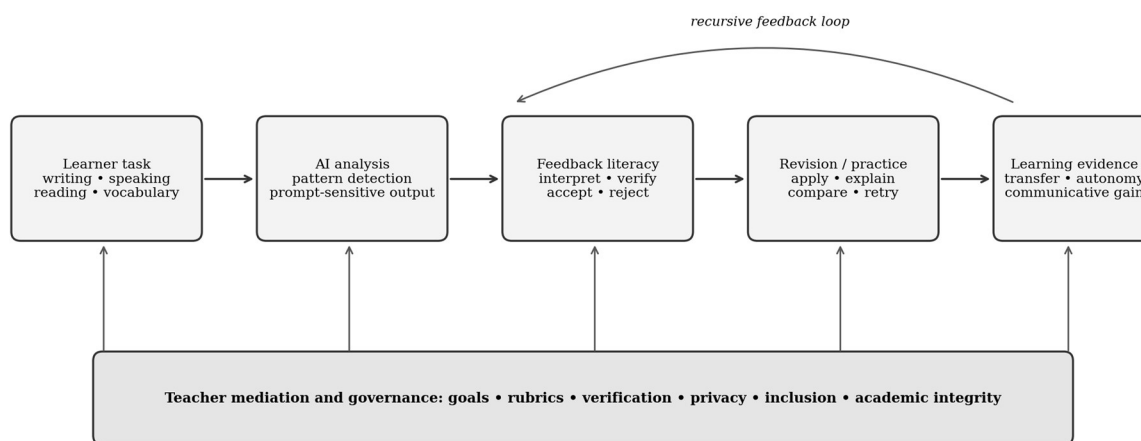
3. Theoretical Framework

Formative assessment provides the first base. When feedback is used as a means to produce evidence that can be used by learners and teacher(s) to change future action then the feedback has pedagogical value [1]. AI output is thus not necessarily feedback, but only becomes so through the inclusion of clear criteria, interpretation by the learner, and another performance opportunity. The feed-up, feed-back and feed-forward sequence developed by Hattie and Timperley encourages systems to restate the point, identify what is being attempted, and suggest a small step to take to achieve the desired result. The second foundation is based on the socio-cultural theory. Tools, signs and interaction in a zone of proximal development [12] mediate learning. AI can serve as a mediation tool to provide examples, questions, rehearsal, and contingent hints. It cannot set up the zone in a pedagogically appropriate way itself because

models don't know the learners in the relational and institutional sense in which teachers do. The key role and importance of teacher and peer dialogue in the interpretation of cultural meanings, emotions, identity and communicative context continues to play a critical role.

The third foundation is self-regulated learning and feedback literacy. Zimmerman's model assumes that learners are active participants, goal setters, self-monitors, self-strategizers, and self-reflectors [13]. Carless and Boud conceptualize feedback literacy in terms of learners' abilities to value feedback, evaluate feedback, control how they feel, and act on feedback [14]. These views focus attention on how learners learn to question comments, to compare and contrast with an AI model, to justify their choices, and to apply the comment knowledge to make their own decisions. Last but not least, technological pedagogical content knowledge and AI literacy situate tool knowledge in teaching proficiency. Mishra and Koehler believe that the effective use of technology is dependent on the interplay between technology, pedagogy, and content, not just the technical skills [15]. In English education, teachers need to grasp the development of language, genre, when and how to provide feedback, learner identity, and what the assessment is for and the language capability of tools. UNESCO's guidance on human-centred approaches extends principles of governance: privacy, transparency, inclusion, accountability and protection of learner agency needs to be built in – not added on [11].

Figure 1. Teacher-mediated cycle of AI-assisted feedback



Source: Developed by the author from formative assessment, feedback literacy, self-regulated learning, TPACK, and human-centred AI principles.

The model is summarized as $PAF = Q \times U \times M \times G$, where PAF represents pedagogically effective AI feedback, Q is the quality and accuracy of the output, U is the uptake by the learner, M is the teacher's mediation and G is the ethical governance. The multiplication sign is heuristic not statistical in that a weak spot in any single condition can greatly diminish the pedagogical value despite strong conditions in the others. The accurate correction, which is copied without reflection, or the useful interaction, which is based on unsafe data practices, cannot be considered as a full and complete feedback..

4. Methodology

The method for this paper is Qualitative Integrative review and Conceptual synthesis. Combines basic research on formative and corrective feedback, peer-reviewed research on automated and generative feedback, language-education scholarship, and international guidance on responsible AI. Sources were chosen by their direct relevance to the feedback process, English or second-language learning, learner engagement, teacher knowledge, and AI ethics. The intent here is not to conduct a meta-analysis, but rather to interpretively integrate studies that employ different tools, populations, tasks, and outcomes as not being statistically comparable.

The analysis was conducted in five categories: feedback target, pedagogical function, learner cognitive action, teacher role and ethical risk. There was a comparison of evidence and arguments in relation to the four components of writing, speaking, pronunciation, grammar, and interaction. Claims relating to learning were separated from claims of speed, satisfaction, or product quality. The paper does not rank named products, as commercial systems and model versions are rapidly changing. It assesses design principles that are applicable to all tools. The principal drawback is that a conceptual review can't identify effect size; the framework needs to be evaluated in longitudinal classroom research that goes side by side with unaided transfer and encompasses various proficiency levels and educational environments.

Table 1. AI-assisted feedback modalities in English language learning

Modality	Typical feedback	Pedagogical opportunity	Primary caution
Automated writing evaluation	Grammar, mechanics, style, organization and scores	Frequent revision and pattern noticing across drafts	False positives, prescriptivism and attention diverted from meaning
Generative AI dialogue	Explanations, examples, questions, reformulations and rubric-based comments	Adaptive scaffolding, rehearsal and metalinguistic dialogue	Hallucination, prompt sensitivity, dependency and hidden authorship
Speech recognition	Transcription, fluency indicators and intelligibility signals	Repeated low-stakes speaking practice and visible comparison	Accent bias and confusion between recognition accuracy and communicative quality
Pronunciation analysis	Segmental and prosodic comparisons, playback and scores	Focused noticing, repetition and self-monitoring	Native-speaker norms may marginalize legitimate varieties
Adaptive vocabulary/grammar systems	Item-level hints, spaced practice and difficulty adjustment	Personalized retrieval practice and rapid diagnostic cycles	Decontextualized drills and opaque learner models

5. Analysis and Discussion

5.1 Writing feedback: from correction to revision dialogue

The most advanced area of AI-based feedback is writing. Systems are able to detect, comment, and suggest lexical and surface changes, make comments on organization, generate rubric-aligned questions, and compare successive drafts. This pace gives more chances for feedback to be given to learners. It can also save teachers from having to respond to repeated similar errors, which frees up time to focus on argument, genre, voice, audience and disciplinary meaning. Multilingual writers may find it easier to revise independently if they are immediately given explanations and examples. Risks are associated with the same affordances. Rewriting based on teaching can enhance the product without creating any awareness of learning. The overt use of rhetorical practices, World Englishes or purposeful code-meshing is sometimes considered a defect in the use of style systems. Learners may agree to suggestions for their fluency without knowing what they mean. A more robust task design is then made possible by an audit trail: Learners provide a version of the text, AI feedback and a learner's acceptance or rejection, a new version of the text, and a brief explanation. This transforms automated output into the evidence of judgment. The assessment of teachers focuses on the reasoning and transfer, rather than on the surface appearance of the final text.

5.2 Speaking, pronunciation, and interaction

Teacher interaction alone cannot provide the practice opportunities that automatic speech recognition and conversational agents can. Learners can practice their presentations, role-play service interactions, repeat, check their transcripts, and ask for level or speed changes. Private rehearsal can decrease anxiety and provide more time on task. Pronunciation tools can be used to draw attention to the key sounds, stress, rhythm and intonation through comparison and playback. But recognition does not equal to communication. The system can fail to recognise an accent that is well understood by human interlocutors, or can give an advantage to the imitation of a limited prestige accent. Although numerical pronunciation scores may be precise, they can lead to eliminating accents or to accenting while speaking intelligibly. Conversational models can also not be consistently sensitive with respect to issues of repair, turn-taking, politeness, irony, and culturally-related meaning. To this end, teachers need to triangulate the feedback on the system with peer comprehension tasks, listener judgements, communicative outcomes, and learner-selected pronunciation goals. The right goal is not to be made to look like a robot doing what you command; it's to make you intelligible and give you agency.

5.3 Grammar, vocabulary, and metalinguistic awareness

AI systems can provide examples at a certain level of proficiency, compare grammatical structures, provide retrieval practice, and provide contextualization for words within the context of the learner. The most important thing about their impact is that they are flexible and adaptable, allowing learners to ask for another explanation, counterexample, or mini-quiz without taking up class time. This kind of interaction facilitates the learner noticing when a feature must be identified and explains why one is more suited. But the free response format of the generation exercise, in an unrestricted format, promotes recognition without retrieval. If the corrected form is immediately given to the learner, he or she might not be able to develop a hypothesis or test what he or she already knows. Better to be graduated: first specify the place or the kind of problem, then give a metalinguistic cue, then give alternatives and then – only then – give a correction. Another option for teachers to consider is to ask the learners to write a new sentence in another situation. This design is a local repair to transfer and a separation of linguistic acceptability from contextual appropriateness.

5.4 Personalization, motivation, and learner autonomy

AI feedback is frequently said to be personalized since it will respond to a person's submission. Pedagogical personalization is harder to achieve, indeed it is the genuine kind. It must align with proficiency, goals, prior learning, genre, emotional readiness and accessibility needs. A model can yield multiple texts for each learner, but without a valid record of development. It is therefore essential for teachers to have stable learning targets and for human diagnosis to take place on a regular basis. There is some variation in practice and explanation, which may or may not be a coherent learning progression, determined by the educators. A well planned repetition of private practice can enhance autonomy and the desire to experiment. Learners can ask questions that they might not ask in front of others and control the pace, modality and number of attempts. But frictionless assistance can also diminish productive struggle and dependency. Autonomy is not just having an answer available all the time, but it's becoming more able to act independently. A helpful fading procedure is to gradually transition to giving the student hints, self-evaluation, peer review, and a cued task. The success criterion is reduction in dependency and enhancement of transfer.

5.5 Teacher roles and classroom orchestration

AI does not replace work for teachers, it changes it. Teachers set the communicative purpose, choose and/or block tools, create prompts, safeguard the data, craft rubrics, model verification, identify common misconceptions, and determine when human response is required. They also give dimensions that automated systems cannot offer to be consistently accurate: relational trust, knowledge of learner history, ethical accountability, culturally responsive interpretation, and consequential professional judgment. A good flow of the work starts with an unassisted diagnostic task. The teacher then determines which of the feedback functions can be transferred for low stakes practice and demonstrates questioning output. While revision with the support of AI, students add annotations to decisions and keep copies. Suggested ideas that are debated are discussed by peers or teachers. A later unaided task test for transfer. Class-level error patterns help to guide mini-lessons, but do not reveal individual data. This orchestration makes sure that AI feedback is integrated into instruction and not an unexamined side service.

5.6 Accuracy, bias, privacy, equity, and academic integrity

The most obvious risk is accuracy, but there are others. Generative systems may generate rules, highlight optional discourse-level issues as errors, or generate optional stylistic options as errors. Training data can reinforce dominant varieties and perpetuate stereotypes in training data examples and role playing. Speech tools have potentially varying performance across accents, ages, recording environments and disabilities. A responsible use is therefore verified from trusted references, judgement of the teacher and communicative evidence. Students need to know to accept or to reject in proportion. Because language tasks often include autobiographical writing, voice recordings, places and identity information, it is essential that these are part of the privacy consideration. Institutions should limit data, refrain from unnecessary personal disclosure, offer non-AI options, and make retention and third party access policies understandable. Equity also means devices and connections, paid features, accessibility, and AI skill. The quality of feedback is going to be dependent on access and/or advanced prompts; if AI requires access to premium or advanced prompts, it may reinforce existing inequities. Academic integrity policies need to make a distinction between "learning support" that is made obvious and "substitution" that is prohibited. Learner who produce prose as independent work of course poses a different issue than the other who compares and contrasts two explanations, provides criticism of feedback, or records revision decisions. Process evidence, oral explanation, version history, in-class performance and tasks that involve transfer should be included in assessment. Educationally more beneficial than the sweeping bans are the norms of disclosure that are clear. Norms of disclosure that are clear are more educationally useful than vague bans, particularly when there is algorithmic assistance in ordinary writing environments.

5.7 Comparative design principles and scholarly contribution

Table 2 is a translation of the analysis to design principles. The main idea is that a learner action and check for learning are needed to accompany tool affordance. This combination allows for assessing the effectiveness of AI without focusing exclusively on the results it produces.

Table 2. Human-centred design principles for AI-assisted feedback

Design principle	Required learner action	Teacher responsibility	Evidence of learning
Goal alignment	Compare feedback with task criteria	Define outcomes and configure rubrics/prompts	Revision addresses intended construct rather than cosmetic features
Verification	Check claims against examples, references or peers	Model uncertainty and correct misleading output	Learner can justify accepting or rejecting a suggestion
Active uptake	Revise, explain, generate a new example and retry	Sequence hints and preserve productive struggle	Improvement transfers to a new, unaided task
Human mediation	Discuss ambiguous, cultural or affective issues	Provide contextual and relational judgment	Feedback decisions reflect audience, identity and purpose
Ethical governance	Use minimal data and disclose assistance	Ensure privacy, access, alternatives and accountability	Participation is safe, equitable and transparent

The framework helps to separate feedback availability from feedback capacity, thereby helping to achieve the goal of scholarship. Learners need capacity to evaluate and utilize comments in the presence of abundance of them created by AI. It also separates personalisation from individualisation: not everything that is different is necessarily 'developmentally appropriate'

output. Last but not least, it considers ethics as a variable in pedagogy. Who participates, valued language, and the ability for learners to safely experiment are affected by privacy, bias and access. Future work should thus focus on the longitudinal transfer, calibrated trust, accent and dialect fairness, teacher workload redistribution, feedback fading, and outcomes of limited digital access and emerging English learners.

6. Conclusion

AI-based feedback can amplify English language learning by providing more rapid feedback, repeated practice, multimodal rehearsal, and explanation opportunities on an individual basis. It is most useful in situations where the stakes are low, so that students can experiment, observe patterns, explore options and make adjustments. Writing tools can assist with error noticing and drafting; speech technologies can provide additional practice opportunities; adaptive systems can provide different levels of grammar and vocabulary practice; and generative systems can model dialogue and provide explanations. These are not the pedagogies themselves, but pedagogies as part of an affordance. What matters is the manner in which the feedback is converted to learning. Factors such as clear goals, accurate and proportionate output, learner uptake, teacher mediation, ethical governance, and unaided transfer of skills are essential for the effective implementation. Teacher's accountability for curriculum purpose, communicative standards, cultural interpretation, relational support, privacy, inclusion and consequential assessment stays intact. It is essential that learners learn to question AI, deal with uncertainty, provide explanations of decisions, and gradually decrease reliance. Alternatives and policies need to be transparent and equitable within institutions. The use of AI should then be neither a magic bullet nor a taboo for teaching. It is a flawed mediating mechanism in a human feedback ecology. AI can extend access to practice and enhance but not diminish the role of learner agency when driven by feedback literacy and teacher expertise and informed by responsible governance. Next, research needs to shift away from the "showy" and "short-term" product-oriented focus, and focus on the evidence of transfer, autonomy, fairness, and ongoing collaboration among teacher and AI in the long-term.

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