

Integrating online dynamic assessment and active learning to mitigate speaking anxiety in EFL contexts: A conceptual framework

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Abstract: Speaking anxiety remains a persistent challenge for learners of English as a Foreign Language (EFL), particularly in online learning environments where limited interaction, delayed feedback, and concerns about performance visibility may intensify emotional discomfort. Such anxiety often leads to reduced participation, diminished confidence, and slower speaking development. While previous research has examined Online Dynamic Assessment (ODA) and Active Learning (AL) independently, limited attention has been paid to their pedagogical integration as a unified framework for reducing anxiety. Drawing on sociocultural theory and recent empirical studies published between 2021 and 2025, this conceptual paper proposes an integrative ODA-AL framework designed to address both the cognitive and affective dimensions of EFL speaking. ODA emphasizes mediated feedback and scaffolding to support learners' developmental potential, while AL promotes engagement, enjoyment, and social interaction through participatory speaking activities. The proposed framework conceptualizes speaking anxiety reduction as an outcome of pedagogical design that aligns assessment with instruction and emotional support. This study contributes to theoretical discussions on affective variables in language education and offers practical implications for EFL instructors. Directions for future empirical research are also discussed.

Keywords: active learning; dynamic assessment; EFL; online learning; speaking anxiety

1. Introduction

Speaking anxiety has been widely recognized as one of the most persistent affective barriers in foreign language learning, particularly in English as a foreign language (EFL) contexts. A substantial body of research indicates that many learners experience fear of negative evaluation, criticism, and public embarrassment when required to speak in a second or foreign language, which often leads to avoidance behaviors and reduced oral participation (MacIntyre, 2017; Dewaele & MacIntyre, 2019; Zhang et al., 2020). Such anxiety not only limits learners' willingness to communicate but also impedes the development of speaking fluency, confidence, and sustained motivation. The shift toward online and blended learning environments has further intensified these challenges. While online instruction offers flexibility and broader access to learning opportunities, it also introduces new sources of anxiety related to limited spontaneous interaction, delayed or impersonal feedback, and concerns about being recorded or permanently evaluated (Jin et al., 2021; MacIntyre et al., 2020; Liu & Wang, 2023). Recent studies suggest that without pedagogical strategies explicitly designed to address learners' emotional needs, online EFL instruction may inadvertently exacerbate speaking anxiety rather than alleviate it (Wang & Derakhshan, 2021; Chen & Chang, 2023).

In response to these challenges, scholars have increasingly emphasized the need for instructional approaches that simultaneously support language development and learners' emotional well-being. Two pedagogical approaches that have shown particular promise in this regard are Online Dynamic Assessment (ODA) and Active Learning (AL). ODA, grounded in sociocultural theory, conceptualizes assessment as an interactive and mediated process that focuses on learners' developmental potential rather than static performance outcomes ([Poehner & Lantolf, 2013](#); [Goodarzi & Namaziandost, 2025](#)). By integrating assessment with instruction and providing personalized mediation, ODA has been shown to reduce anxiety and enhance learners' confidence in speaking tasks. In contrast, AL emphasizes learner engagement, collaboration, and experiential learning, encouraging students to actively construct knowledge through meaningful interaction and communicative practice ([Mercer & Dörnyei, 2020](#); [Rezai et al., 2025](#)). Research indicates that AL can foster enjoyment, motivation, and psychological safety, all of which are crucial for reducing speaking anxiety ([Aubrey, 2025](#); [Dewaele & MacIntyre, 2019](#)).

Despite growing interest in both ODA and AL, existing studies have largely examined these approaches in isolation. There remains a notable conceptual gap in understanding how assessment-mediated support and active learner engagement can be systematically integrated to address speaking anxiety in online EFL contexts. Addressing this gap, the present conceptual article proposes an integrated ODA–AL framework aimed at reducing speaking anxiety and promoting confident oral communication in online EFL learning environments. By synthesizing insights from sociocultural theory, affective research, and recent empirical studies, this framework offers theoretical contributions to the literature on language anxiety and practical pedagogical implications for EFL instructors seeking to create emotionally supportive and effective online speaking instruction.

2. Literature review

2.1 Dynamic assessment in EFL

Dynamic Assessment (DA) is a pedagogical and assessment-oriented approach grounded in Vygotskian sociocultural theory, which conceptualizes learning as a socially mediated process that unfolds within the Zone of Proximal Development (ZPD) ([Vygotsky, 1978](#); [Lantolf et al., 2018](#)). Unlike traditional static assessment models that focus on measuring learners' current level of performance, DA emphasizes learners' potential development by integrating assessment with instruction through systematic mediation, scaffolding, and dialogic interaction ([Poehner, 2008](#); [Poehner & Lantolf, 2013](#)). From this perspective, assessment is not a terminal judgment but an ongoing process that supports learning while it is taking place.

In EFL contexts, DA has been increasingly recognized as particularly suitable for speaking development, as oral performance is highly sensitive to affective variables such as anxiety, fear of negative evaluation, and self-confidence ([MacIntyre, 2017](#); [Dewaele & MacIntyre, 2019](#)). DA enables teachers to observe how learners respond to assistance during speaking tasks rather than evaluating final output alone, thereby reducing the pressure associated with performance-based assessment ([Schneider & Kang, 2023](#)). By framing errors as opportunities for mediated learning, DA helps learners reconceptualize speaking difficulties as part of a developmental trajectory rather than as personal failure. With the expansion of digital education, DA has evolved into Online Dynamic Assessment (ODA), which allows mediation to occur through synchronous and asynchronous online platforms such as video conferencing tools, learning management systems, and audio-recorded feedback ([Chapelle & Voss, 2016](#); [Liu & Wang, 2023](#)). Recent empirical studies suggest that ODA plays a significant role in reducing speaking anxiety by creating a more private, supportive, and learner-centered assessment environment ([Goodarzi & Namaziandost, 2025](#)). In online DA contexts, feedback is often

individualized and delivered in non-threatening formats, which reduces learners' fear of public embarrassment and negative evaluation.

[Goodarzi and Namaziandost \(2025\)](#) found that learners who experienced ODA reported lower speaking anxiety and higher motivation, as assessment was perceived as guidance rather than judgment. Similarly, [Li and Hu \(2024\)](#) demonstrated that continuous, personalized mediation, whether provided by teachers or peers, enhanced speaking fluency, accuracy, and emotional engagement. Conceptually, ODA positions assessment as an affect-sensitive instructional practice that supports both cognitive development and emotional well-being. By aligning assessment with mediation and emotional support, DA contributes to a learning environment in which EFL learners are more willing to take communicative risks and engage actively in speaking tasks ([Wang & Derakhshan, 2021](#); [MacIntyre et al., 2020](#)).

2.2 Active learning strategies and language anxiety

Active learning (AL) refers to an instructional approach that emphasizes learners' active participation in the learning process through interaction, collaboration, problem-solving, and reflective engagement ([Prince, 2004](#); [Mercer & Dörnyei, 2020](#)). Rather than positioning learners as passive recipients of knowledge, AL views learning as a process of meaning construction that occurs through social interaction and experiential engagement. In EFL classrooms, AL is commonly implemented through discussions, role-plays, simulations, task-based activities, and collaborative projects that require learners to use language authentically ([Ellis, 2003](#)).

A growing body of research highlights the role of AL in addressing affective variables, particularly speaking anxiety, which is widely acknowledged as a major obstacle to oral communication in foreign language learning ([MacIntyre, 2017](#); [Zhang et al., 2020](#)). AL reduces anxiety by shifting classroom dynamics from performance-oriented evaluation to collaborative meaning-making, where communicative risk-taking is normalized and supported ([Lee, 2020](#)). Through repeated participation in low-stakes speaking activities, learners gradually develop confidence and a stronger sense of communicative competence. [Rezai et al. \(2025\)](#) describe AL as a transformative pedagogical approach that departs from traditional teacher-centered instruction by immersing learners in experiential and interactive speaking tasks. Their findings indicate that AL promotes learner confidence, sustained motivation, and positive attitudes toward English learning while simultaneously reducing anxiety related to oral performance. Similarly, [Hwang et al. \(2021\)](#) found that socially regulated active learning environments significantly lowered speaking anxiety by fostering peer support and shared responsibility.

From an affective perspective, AL aligns with positive psychology and control-value theories of learning emotions, which emphasize the role of enjoyment, engagement, and perceived task value in reducing anxiety and enhancing performance ([Pekrun, 2014](#); [Dewaele & MacIntyre, 2019](#)). [Aubrey \(2025\)](#) further demonstrates that enjoyment and reduced task-specific anxiety during active speaking tasks enhance learners' performance across different stages of spoken discourse. When learners perceive speaking activities as meaningful, collaborative, and manageable, anxiety diminishes and willingness to communicate increases ([Lee, 2020](#)). Conceptually, AL positions emotional engagement not as a by-product of instruction but as a core pedagogical goal. By creating psychologically safe learning environments that emphasize interaction and learner agency, AL provides an effective means of mitigating speaking anxiety and fostering sustained oral participation in EFL classrooms ([Mercer & Dörnyei, 2020](#); [Wang & Derakhshan, 2021](#)).

2.3 Integration of technology in language assessment

The integration of digital technology into language assessment has transformed how speaking skills are practiced, assessed, and supported, particularly in online EFL contexts. Technology-mediated assessment tools enable teachers to provide timely, individualized, and low-pressure feedback, thereby addressing both cognitive and affective dimensions of speaking development ([Chapelle & Voss, 2016](#); [Chen & Chang, 2023](#)). Such tools are especially valuable for learners who experience high levels of speaking anxiety in traditional classroom settings. One extensively studied technological innovation is Automatic Speech Recognition (ASR), which allows learners to practice oral production independently and receive instant corrective feedback without the fear of public judgment ([Bashori et al., 2021](#)). ASR-based platforms enable repeated practice at the learner's own pace, fostering autonomy and emotional safety. Empirical evidence suggests that learners using ASR report lower speaking anxiety, higher confidence, and increased enjoyment compared to those in traditional speaking assessment contexts ([Bashori et al., 2021](#); [Wang & Derakhshan, 2021](#)).

Beyond ASR, online collaborative platforms and computer-assisted language learning environments enhance social presence and peer interaction, both of which are crucial for reducing anxiety in online speaking tasks ([Zhao & Yang, 2022](#)). Meta-analytic findings indicate that structured online interaction, when supported by appropriate pedagogical design, significantly reduces foreign language anxiety and enhances speaking performance ([Chen & Chang, 2023](#)). These findings highlight the importance of aligning technological tools with pedagogical approaches that prioritize emotional support and learner engagement. From a conceptual standpoint, technology-mediated assessment complements both Dynamic Assessment and Active Learning by providing a mediating space where individualized feedback and active participation can coexist. When integrated with ODA and AL, digital tools function not merely as assessment instruments but as pedagogical mediators that reduce affective barriers and support speaking development. This integration underscores the potential of technology-enhanced assessment to serve as a central component of anxiety-reducing instructional frameworks in online EFL education ([Goodarzi & Namaziandost, 2025](#); [MacIntyre et al., 2020](#)).

3. Methods

This study adopts a conceptual research design aimed at theory development rather than empirical testing. No primary data were collected. Instead, the study is grounded in a systematic and critical synthesis of established theories and recent peer-reviewed research to construct an integrated pedagogical framework for reducing speaking anxiety in online English as a Foreign Language (EFL) context. The conceptual analysis draws primarily on Vygotsky's sociocultural theory, particularly the concept of the Zone of Proximal Development, alongside contemporary principles of affective and active learning. In addition, the study synthesizes findings from empirical and theoretical studies on Online Dynamic Assessment (ODA) and Active Learning (AL) published between 2021 and 2025 in Scopus-indexed journals. These sources were selected for their relevance to speaking anxiety, mediated feedback, learner engagement, and technology-enhanced language instruction.

The analytical procedure involved three stages. First, key theoretical constructs related to speaking anxiety, mediation, learner engagement, and emotional support were identified and examined across the selected literature. Second, recurring pedagogical mechanisms and affective outcomes associated with ODA and AL were compared and categorized. Finally, these insights were integrated to develop a unified conceptual framework that explains how assessment-mediated support and active learner participation can jointly contribute to anxiety reduction in online EFL speaking instruction. The purpose of this conceptual approach is to offer a theoretically informed and pedagogically coherent model that can guide EFL teachers in designing emotionally supportive online speaking activities.

While the proposed framework is not empirically validated in this study, it provides a foundation for future research and instructional practice aimed at enhancing learners' confidence and oral communication performance in online EFL environments.

4. Results

The central outcome of this conceptual inquiry is the formulation of a theoretically grounded and pedagogically coherent framework that integrates Online Dynamic Assessment (ODA) and Active Learning (AL) to address speaking anxiety in online EFL contexts. Rather than reporting empirical findings, this section presents the conceptual results emerging from systematic theory synthesis and analytical integration of recent research on speaking anxiety, sociocultural mediation, and learner engagement. The proposed framework reconceptualizes anxiety reduction as a pedagogical outcome produced through the alignment of assessment practices, instructional design, and affective support.

4.1 Structural architecture of the ODA–AL framework

The integrated framework is organized around three mutually reinforcing dimensions: development-oriented assessment, participatory learning processes, and affective regulation. These dimensions function as an interdependent system rather than as isolated instructional components. First, development-oriented assessment, operationalized through ODA, constitutes the foundational dimension of the framework. In this dimension, assessment is reframed as a dialogic and formative process that prioritizes learners' responsiveness to mediation over their immediate performance accuracy. By focusing on developmental trajectories rather than summative outcomes, ODA reduces the evaluative pressure commonly associated with speaking tasks and mitigates learners' fear of negative judgment. Conceptually, this shift transforms assessment into an emotionally supportive learning space in which errors are treated as indicators of learning potential rather than deficiencies.

Second, participatory learning processes, enacted through AL, serve as the instructional dimension of the framework. Active learning activities provide structured opportunities for learners to engage in meaningful oral interaction through collaboration, negotiation of meaning, and shared problem-solving. These participatory processes reduce speaking anxiety by distributing communicative responsibility across peers and by embedding speaking practice within socially supported tasks. As a result, speaking is experienced as a collective activity rather than an individual performance under scrutiny. Third, affective regulation emerges as a central outcome of the dynamic interaction between assessment mediation and active engagement. The framework conceptualizes emotional safety not as an external condition but as a pedagogically constructed state that develops when learners experience consistent support, autonomy, and successful communicative encounters. Reduced anxiety, increased enjoyment, and enhanced willingness to communicate are thus positioned as direct consequences of instructional alignment rather than as learner-internal traits.

4.2 Functional dynamics of the framework

The ODA–AL framework operates through a recursive and cyclical pedagogical process that connects individual mediation with collective engagement. Initially, learners participate in low-stakes speaking tasks supported by ODA, such as recorded oral responses, guided speaking prompts, or mediated online interviews. During this phase, teachers provide individualized feedback that targets strategic improvement and self-regulation rather than error correction alone. This individualized mediation allows learners to process feedback privately, thereby minimizing anxiety linked to public exposure. Subsequently, learners transition from individual mediation to collaborative application through AL-based activities, including pair discussions, small-group role-plays, and task-based speaking projects.

In this phase, mediated feedback is recontextualized within social interaction, enabling learners to practice newly acquired strategies in supportive peer environments. This recursive movement between private mediation and social engagement strengthens learners' confidence and facilitates gradual internalization of speaking strategies. Importantly, the cyclical nature of the framework ensures that assessment and instruction are not sequential but interdependent. Assessment informs instruction, instruction generates new learning needs, and mediation continuously adapts to learners' evolving affective and cognitive states.

4.3 Pedagogical and affective outcomes

At the pedagogical level, the framework yields a reconceptualization of speaking assessment and instruction in online EFL contexts. Speaking assessment is no longer positioned as a source of anxiety but as a mediational tool that supports emotional regulation and communicative development. Instruction, in turn, becomes a site for collaborative meaning-making rather than individual performance evaluation. At the learner level, the conceptual outcomes include reduced speaking anxiety, enhanced self-confidence, greater willingness to communicate, and sustained engagement in oral tasks. These outcomes are understood as emergent properties of pedagogical design rather than as direct instructional targets. By repeatedly experiencing successful speaking interactions within supportive assessment and learning environments, learners gradually develop positive emotional orientations toward speaking English. From a broader theoretical perspective, the framework contributes to affective research in second language acquisition by demonstrating how emotional variables can be systematically addressed through instructional design. It extends sociocultural theory by illustrating how mediated assessment and active participation jointly function as mechanisms for affective regulation in online language learning.

5. Discussion

This conceptual study advances the literature on speaking anxiety in online EFL contexts by synthesizing insights from Dynamic Assessment, Active Learning, and technology-mediated instruction into a unified pedagogical framework. Unlike prior studies that have examined these approaches independently, the integrated Online Dynamic Assessment-Active Learning (ODA-AL) framework conceptualizes anxiety reduction as an outcome of instructional alignment rather than as a learner-internal deficit. By explicitly connecting assessment mediation, participatory learning processes, and emotional regulation, the framework responds to growing calls for affect-sensitive pedagogy in second language education ([MacIntyre et al., 2020](#); [Wang & Derakhshan, 2021](#)).

From a sociocultural perspective, the findings extend previous work on Dynamic Assessment by foregrounding its affective function in speaking instruction. While DA has traditionally been valued for its capacity to reveal learners' developmental potential through mediation within the Zone of Proximal Development ([Poehner, 2008](#); [Lantolf et al., 2018](#)), its role in mitigating speaking anxiety has received comparatively limited theoretical attention. The present framework builds on recent empirical evidence indicating that Online Dynamic Assessment can reduce anxiety by reframing assessment as supportive guidance rather than evaluative judgment ([Goodarzi & Namaziandost, 2025](#); [Liu & Wang, 2023](#)). By embedding ODA within a broader instructional cycle, the framework demonstrates how mediated feedback can function not only as a cognitive scaffold but also as a mechanism for emotional regulation during speaking tasks.

The integration of Active Learning further extends the affective potential of Dynamic Assessment. Prior studies have shown that active, collaborative learning environments promote learner engagement, confidence, and positive emotional experiences ([Mercer & Dörnyei, 2020](#); [Rezai et al.,](#)

2025). However, these studies often focus on classroom interaction without explicitly linking engagement to assessment practices. The ODA-AL framework bridges this gap by positioning Active Learning as the instructional space in which mediated feedback is transformed into meaningful communicative practice. This alignment supports [Aubrey's \(2025\)](#) findings that enjoyment and reduced task-specific anxiety enhance speaking performance across different discourse stages. Within the framework, Active Learning not only increases participation but also enables learners to internalize mediated support through social interaction, consistent with sociocultural accounts of learning.

Importantly, the framework also incorporates insights from research on technology-mediated language assessment. Studies on Automatic Speech Recognition and online collaborative tools highlight the role of technology in creating low-pressure environments for speaking practice and immediate feedback ([Bashori et al., 2021](#); [Zhao & Yang, 2022](#)). The present framework situates these technological affordances within a pedagogical logic, showing how digital tools can support both ODA and AL by enabling private mediation, repeated practice, and socially supported interaction. This conceptualization aligns with meta-analytic evidence indicating that structured online interaction can significantly reduce foreign language anxiety when pedagogically guided ([Chen & Chang, 2023](#)).

By linking assessment, instruction, and technology, the ODA-AL framework reconceptualizes emotional safety as a pedagogically constructed condition. Consistent with affective theories in SLA, anxiety reduction is understood as emerging from learners' perceptions of control, value, and support within learning tasks ([Pekrun, 2014](#); [Dewaele & MacIntyre, 2019](#)). Through private, individualized mediation and collaborative speaking activities, learners experience reduced fear of negative evaluation and increased willingness to communicate. This perspective challenges deficit-oriented views of speaking anxiety and underscores the role of instructional design in shaping learners' emotional experiences.

Pedagogically, the framework offers a coherent model for online EFL instructors seeking to address speaking anxiety systematically. Rather than treating assessment and instruction as separate stages, teachers are encouraged to integrate mediated feedback into active learning cycles, thereby ensuring continuity between guidance and practice. This approach is particularly relevant in online learning contexts, where learners often report heightened anxiety due to isolation, delayed feedback, and concerns about public performance ([Jin et al., 2021](#); [Liu & Wang, 2023](#)). By aligning assessment with collaborative engagement, the framework provides practical direction for designing emotionally supportive online speaking instruction.

Despite its contributions, the study remains conceptual in nature. The proposed framework has not yet been empirically validated, and future research is needed to examine its applicability across different proficiency levels, educational contexts, and technological platforms. Longitudinal and mixed-methods studies could explore how learners' anxiety trajectories evolve within ODA-AL instructional cycles and how specific mediational strategies influence speaking development over time. In sum, this discussion demonstrates that integrating Online Dynamic Assessment and Active Learning offers a theoretically grounded and pedagogically viable approach to addressing speaking anxiety in online EFL education. By explicitly linking assessment mediation, active participation, and emotional regulation, the proposed framework contributes to ongoing debates on affective variables in language learning and provides a foundation for future research and instructional innovation.

6. Conclusion

This conceptual article proposed an integrated Online Dynamic Assessment-Active Learning (ODA-AL) framework to address speaking anxiety in online EFL contexts. By aligning mediated assessment

with active and collaborative learning practices, the framework highlights how pedagogical design can play a central role in fostering emotional safety, learner engagement, and speaking confidence. The proposed model offers a coherent perspective on how assessment, instruction, and affective support can be systematically combined to create more supportive online speaking environments. Despite its contributions, this study has several limitations. As a conceptual work, the proposed framework has not been empirically tested, and its effectiveness in reducing speaking anxiety remains theoretical. In addition, the framework was developed primarily with reference to online higher education contexts, which may limit its applicability to other educational levels or learning settings. The study also does not examine the implementation challenges that teachers may face when integrating dynamic assessment and active learning in technology-mediated classrooms. Future research is therefore encouraged to empirically validate the ODA–AL framework across diverse educational contexts and learner populations. Longitudinal and mixed-methods studies could examine how learners' speaking anxiety and communicative confidence evolve when the framework is applied in practice. Further investigations may also explore the role of specific technological tools in supporting mediated assessment and active learning processes, as well as teachers' and learners' perceptions of the framework's feasibility and effectiveness.

Author's declaration

Author contribution

Ikma Wati: Conceptualization, literature review, framing of methodology, writing of the original draft, editing, grammar validation, and preparation of the final manuscript. **Anisa Nurjanah:** Editing-draft, writing-revising-final manuscript. **Zhyldyz Tunguchbaevna Takenova:** Grammar validation, and preparation of the final manuscript. **Dinara Asanova:** writing-revising-final manuscript.

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Data availability

This study does not involve the collection or analysis of original empirical data. All the theoretical insights and arguments presented are supported by previously published research, which is cited appropriately throughout the text. No new datasets were generated or analysed. Readers seeking access to specific references of source materials can consult the full list of citations in the 'reference' section. Any additional enquiries should be directed to the corresponding author.

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Conflict of interest

The authors declare no conflicts of interest related to this research and publication.

Ethical clearance

This study did not involve human participants, animals, or any sensitive data requiring ethical approval.

AI statement

ChatGPT, Grammarly, and DeepL were utilized to enhance the grammatical structure and overall readability of this article. The authors manually rechecked the accuracy and appropriateness of all AI-suggested sentences to ensure they aligned with the topic and cited sources of this study. No AI-generated content was included without review. The authors remain fully responsible for the content of this article.

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