



Enhancing Confidence and Reducing Anxiety: Zoom Meetings in EFL Speaking Practice

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ABSTRACT

Speaking anxiety represents one of the most persistent barriers to oral language development among EFL learners in higher education, yet the specific mechanisms through which technology-mediated presentation environments address this challenge remain insufficiently understood. This study explores EFL students' experiences and perceptions of Zoom Meeting-based presentations, with particular attention to how specific platform features help reduce speaking anxiety and enhance speaking confidence in an Indonesian university context. A qualitative case study design was employed, involving six purposively selected undergraduate EFL students enrolled in an advanced English-speaking program at a university language center in Indonesia. Data were collected over six weeks through three complementary sources: classroom observations, semi-structured individual interviews lasting 15 to 20 minutes, and document analysis of presentation slides, instructor feedback, and participant self-reflection essays. Data analysis followed Braun and Clarke's (2006) six-stage thematic analysis framework. Four principal themes emerged from the analysis. First, Zoom's camera control and hidden notes features were perceived as meaningful anxiety-reducing affordances, enabling students to redirect cognitive attention from self-presentation concerns toward linguistic performance. Second, private rehearsal capabilities significantly enhanced students' sense of preparedness before formal presentations. Third, interface customization options supported improved focus and a sense of environmental control during delivery. Fourth, participants identified notable constraints, including technical difficulties, audio latency, and reduced authentic communicative interaction due to limited nonverbal feedback. The findings suggest that Zoom's platform-specific affordances may support confidence development and anxiety management in EFL presentation contexts, particularly for learners with heightened speaking anxiety. However, these benefits appear to be contingent on deliberate pedagogical design that treats the platform's supportive features as temporary scaffolds rather than permanent accommodations and progressively reintroduces authentic communicative demands as learners' confidence grows.

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■ INTRODUCTION

Speaking anxiety remains one of the most extensively documented psychological barriers in foreign language education, consistently linked to impaired oral performance, reduced willingness to communicate, and diminished academic self-confidence among EFL learners (Arifin, 2017; Horwitz et al., 1986; MacIntyre & Gardner, 1994; Woodrow, 2006). In higher education contexts, where students are increasingly expected to demonstrate oral competence through structured academic presentations, the stakes attached to public speaking heighten this anxiety further. Fear of negative evaluation, insufficient preparation

time, and the pressure of performing in a non-native language simultaneously create conditions in which even linguistically competent students may underperform significantly relative to their actual ability (Erdiana et al., 2020; Liu & Jackson, 2008; Luo, 2013; Mak, 2011). Addressing this challenge has therefore become a central concern in EFL pedagogy, particularly as higher education institutions seek ways to build students' communicative confidence beyond the traditional classroom.

The rapid expansion of technology-mediated learning environments has introduced new possibilities for reshaping the conditions

under which EFL students practice and perform oral skills. Online platforms, in particular, have attracted growing research attention for their potential to reduce the evaluative pressure associated with face-to-face speaking tasks by offering learners a degree of environmental control unavailable in physical classrooms (Rahmat, 2023; Shamsi et al., 2019; Sun & Yang, 2021). Zoom Meeting has emerged as one of the most widely adopted platforms for this purpose, having gained rapid institutional uptake during the COVID-19 pandemic and sustained pedagogical use well beyond it (Laili & Nashir, 2021; Marek et al., 2021). Its combination of video conferencing, screen sharing, chat, and recording functions creates a multimodal communicative environment that differs meaningfully from both traditional face-to-face classrooms and simpler audio-only or text-based online formats. These distinctive features have prompted researchers and practitioners to consider whether Zoom's specific affordances might address the psychological dimensions of speaking anxiety in ways that general online learning cannot.

A growing body of research has examined student perceptions of online learning broadly and, more specifically, of Zoom-mediated education, with studies documenting generally positive attitudes toward platform flexibility, scheduling convenience, and reduced commuting demands (Hrastinski, 2019; Moorhouse, 2021; Rini et al., 2021). Several studies have also explored how online environments influence motivation and engagement in language learning (Marek et al., 2021; Shamsi et al., 2019). However, important gaps remain in the existing literature that the present study seeks to address. While prior research has documented general perceptions of Zoom and broad patterns of anxiety in online learning, studies that examine the precise psychological mechanisms through which Zoom's specific features, such as camera control, hidden notes, and private rehearsal capabilities, operate to reduce speaking anxiety and build presentational confidence remain limited (Baralt & Gurzynski-Weiss, 2011; Shamsi et al., 2019). Furthermore, although technical challenges in online learning have been noted across the literature, their specific intersection with speaking anxiety in the context of formal EFL presentations has not been examined in sufficient depth. Most critically, the interplay between Zoom's anxiety-reducing affordances and its constraints on authentic communicative interaction, specifically the reduced access to non-verbal audience feedback that virtual environments produce, represents a tension that existing

studies have identified but not adequately theorized or empirically explored in EFL presentation contexts.

Addressing these specific gaps is important not only for theoretical reasons but for practical ones. Empirical evidence from Indonesian higher education contexts consistently documents elevated speaking anxiety among EFL learners. Erdiana et al. (2020) found that 59% of undergraduate EFL students in Banda Aceh experienced moderate-level speaking anxiety and a further 3.4% experienced high-level anxiety, with fear of negative evaluation and lack of confidence in front of peers identified as the primary contributing factors. Arifin (2017) similarly documented that psychological barriers, including low self-confidence, shyness, and fear of making mistakes, are pervasive features of Indonesian EFL speaking classrooms, affecting students' willingness and ability to communicate orally. These findings suggest that speaking anxiety is not an incidental concern but a structurally embedded challenge in Indonesian EFL higher education, compounded by limited formal opportunities for oral practice within credit-bearing courses and by growing institutional reliance on online platforms for English-language instruction. Understanding how Zoom's features specifically influence the affective and cognitive dimensions of speaking performance in this context can therefore provide educators with evidence-based guidance for designing technology-mediated speaking instruction that is both accessible and pedagogically sound.

The present study, therefore, aims to explore EFL students' experiences and perceptions of Zoom Meeting-based presentations in an Indonesian university context, with a particular focus on platform features students identify as consequential for their speaking anxiety and confidence. Three research questions guide the inquiry. First, how do EFL students perceive the use of Zoom Meeting-based presentations in their speaking practice? Second, what specific features of Zoom contribute to reducing speaking anxiety and enhancing confidence among EFL learners? Third, what challenges do students encounter when using Zoom for English presentations? By investigating these questions through a qualitative case study design, the study aims to generate nuanced, experience-near insights from the student perspective to inform more deliberate and effective pedagogical integration of online presentation platforms into EFL instruction.

The significance of this inquiry extends beyond the immediate Indonesian context. As

online and hybrid learning environments become structurally embedded in higher education institutions worldwide, understanding how specific platform affordances interact with learners' affective states during high-stakes speaking tasks carries implications for EFL pedagogy broadly. Technology adoption in language education has frequently outpaced empirical understanding of how particular tools shape the psychological conditions of learning, and speaking performance is an area where this gap is especially consequential. By foregrounding student experience and closely attending to the specific mechanisms by which platform features influence anxiety and confidence, this study provides empirical grounding for a conversation that has too often remained at the level of general platform evaluation. The findings are intended to inform not only instructors working in Zoom-mediated contexts but also curriculum designers and teacher educators preparing EFL practitioners for increasingly technology-integrated instructional environments.

■ METHOD

Research Design

This study employed a qualitative case study design to explore EFL students' perceptions and lived experiences of Zoom Meeting-based presentations in relation to speaking anxiety and confidence development. A case study approach was selected because it enables in-depth, contextually situated investigation of a bounded phenomenon within its real-world setting, making it particularly appropriate for capturing the nuanced, subjective dimensions of how learners interact with and respond to a specific technological environment (Creswell, 2014; Merriam & Tisdell, 2016). Rather than seeking statistical generalization, the design prioritizes generating a rich, detailed understanding of how specific platform features are experienced by individual learners in a particular instructional context. This orientation aligns with the study's central concern with psychological and affective processes, which resist quantification and require interpretive methods capable of accessing participants' meaning-making from the inside.

The study was conducted in a non-credit advanced English-speaking program at a university language center in Indonesia. This context was deliberately selected because such programs provide dedicated space for oral communication practice outside the constraints of formal degree requirements, and because students enrolling voluntarily in advanced

speaking courses tend to be both motivated and aware of their anxiety challenges, making them well positioned to reflect substantively on their experiences. The six-week data collection period spanned three structured phases of the program: material preparation and planning, rehearsal and peer feedback, and final presentation delivery, providing longitudinal coverage of the full presentation development cycle.

Participants and Data Collection

Six undergraduate EFL students were selected through purposive sampling to participate in the study. Purposive sampling was employed to ensure that participants could provide information-rich accounts relevant to the study's focus on speaking anxiety and Zoom-mediated presentation experience (Patton, 2002). Selection criteria included intermediate-to-upper-intermediate English proficiency as determined by institutional placement tests, prior experience with Zoom for at least three academic presentation sessions, self-reported speaking anxiety in formal presentation contexts, and willingness to participate openly in interviews and observations.

The six participants ranged in age from 19 to 22 years and comprised four female and two male students drawn from diverse disciplinary backgrounds, including education, economics, and health sciences. Beyond these demographic characteristics, participants varied meaningfully in their language learning histories and affective profiles. Two participants had prior experience with English-medium instruction in secondary school and reported moderate anxiety levels, while the remaining four had received predominantly Indonesian-medium schooling and reported higher baseline anxiety in formal English-speaking contexts. Three participants described intrinsic motivation for English learning tied to professional aspirations, while the other three reported primarily academic motivation. This variation was intentional, as it allowed the analysis to attend to how individual differences in background and motivation interact with platform affordances rather than producing a homogeneous account.

The sample size of six participants was determined based on purposive depth rather than statistical representation, consistent with qualitative case study norms, where data richness takes precedence over breadth (Creswell, 2014). Data collection continued until thematic saturation was reached, defined as the point at which no substantively new themes or insights emerged from additional

interviews or observations (Braun & Clarke, 2006; Guest et al., 2006). Saturation was assessed iteratively throughout the analysis and confirmed following the final interview, providing methodological justification for the sample's adequacy.

Data were collected across six weeks through three complementary sources to enable triangulation. First, three classroom observation sessions were conducted in Weeks 2, 4, and 6, each lasting approximately 90 minutes. Detailed field notes documented participants' behavioral indicators of anxiety and confidence, verbal and non-verbal expressions during Zoom interactions, and engagement with specific platform features. Video recordings of sessions were made with participants' informed consent. Second, individual semi-structured interviews were conducted with each participant following the final observation session in Week 6. Third, documents produced throughout the study period were collected and analyzed, including presentation slides, written instructor feedback, and self-reflection essays.

Triangulation was operationalized through systematic cross-referencing of findings across all three data sources. Behavioral patterns identified through observation were compared with participants' interview accounts to assess convergence and divergence. Where observational data suggested anxiety indicators not mentioned in interviews, follow-up probing was conducted. Document data served as a third verificatory lens, either corroborating or introducing nuances requiring interpretive reconciliation. Discrepancies between sources were treated as analytically productive, prompting deeper interrogation of the conditions under which different accounts arose.

All participants provided written informed consent prior to data collection. Confidentiality was protected through pseudonyms throughout data storage, analysis, and reporting.

Instruments

Three instruments were used to collect data, each targeting a distinct dimension of participants' experience with Zoom-based presentations. The observation protocol was structured around four behavioral focus areas derived from the literature on speaking anxiety and technology-mediated communication: indicators of anxiety such as hesitation, avoidance behaviors, and self-interruption; engagement with specific Zoom features, including camera controls, screen sharing, and

chat functions; verbal fluency patterns across the three observation sessions; and interpersonal interaction quality during peer feedback exchanges. Observers documented these dimensions in timestamped field notes, using a consistent recording format across all three sessions to ensure comparability.

The semi-structured interview protocol comprised twelve open-ended questions organized into four thematic areas. The first area addressed general perceptions of Zoom-based presentations compared to face-to-face delivery. The second explored specific platform features and their perceived effects on anxiety and confidence, using probing questions about camera control, hidden notes, private rehearsal, and interface customization. The third area examined challenges encountered during Zoom presentations, including technical difficulties and communicative limitations. The fourth invited participants' overall reflections on Zoom as a learning tool and their preferences for future speaking instruction. While the protocol provided consistent coverage across all six participants, the semi-structured format allowed interviewers to pursue emerging themes and request elaboration where participant accounts opened productive lines of inquiry. Interviews were conducted individually in a private setting to minimize social desirability effects, audio-recorded with consent, and subsequently transcribed verbatim. The average interview duration was 18 minutes, which, while relatively concise, reflected the protocol's focus and structure, as well as participants' familiarity with the topics discussed following six weeks of reflective engagement with the program. Where initial responses indicated thematically significant experiences that warranted deeper exploration, brief follow-up exchanges were conducted via written communication to ensure adequate depth of data.

Document analysis followed a structured analytical framework examining three document types. Presentation slides were analyzed for evidence of preparation strategies, organizational structure, and use of visual supports. Instructor feedback documents were examined for recurring comments related to fluency, confidence, and delivery quality across the three presentation cycles. Self-reflection essays were analyzed for participants' own characterizations of their anxiety, confidence, and perceived development over time, with particular attention to explicit references to Zoom features as mediating factors. Documents were analyzed chronologically to capture developmental trajectories over the six weeks.

Data Analysis

Data analysis followed the six-stage thematic analysis framework proposed by Braun and Clarke (2006). In the first stage, all data sources, including interview transcripts, field observation notes, and collected documents, were repeatedly read to develop a deep familiarity with the material. Preliminary observations and potential patterns were noted during this phase without committing to formal codes. In the second stage, initial codes were systematically generated across all data sources, yielding labels such as "camera-off as anxiety buffer," "hidden notes as cognitive scaffold," "technical disruption as anxiety trigger," and "reduced audience feedback." In the third stage, codes were organized into candidate themes by grouping conceptually related codes, resulting in provisional categories, including anxiety-reduction mechanisms, preparedness enhancement, focus and control, and constraints. The fourth stage involved reviewing and refining these themes against the full dataset to verify internal coherence and ensure that each theme was adequately supported across multiple data sources and participants. The fifth stage involved producing precise definitions and names for each of the final themes. The sixth stage involved writing up the findings, integrating supporting evidence.

To illustrate the systematic nature of the observational coding procedure, it is useful to describe how raw behavioral data were processed during Stage 2. Observation field notes were structured around four pre-determined behavioral focus areas derived from the speaking anxiety literature: hesitation behaviors, avoidance behaviors, self-interruption patterns, and engagement with specific Zoom features. During each 90-minute observation session, the researcher documented behavioral incidents using a consistent timestamped format, recording the elapsed session time, the participant identifier, the observed behavior, and the provisional code assigned. For example, a participant pausing mid-sentence, redirecting gaze away from the camera, and resuming after approximately three seconds would be recorded under the hesitation code and cross-referenced against the camera-on or camera-off status at that moment. This cross-referencing was particularly important for examining how behavioral patterns shifted depending on which Zoom features participants were actively using during observation. Incidents coded as hesitation or self-interruption were later compared with participants' own interview accounts of their anxiety experience to assess whether self-

reported perceptions were consistent with observed behavioral patterns — a triangulation procedure that either strengthened theme credibility where convergence was found or prompted deeper analytical interrogation where discrepancies arose. The self-reflection essays contributed a third layer of evidence, allowing the researcher to examine whether participants recognized and articulated the same behavioral tendencies in their own written reflections that had been independently coded during observation.

Several procedures were employed to ensure the trustworthiness of the analysis. Member checking was conducted by returning written summaries of preliminary findings to all six participants and inviting their responses on the accuracy and completeness of the summaries. Three participants suggested minor clarifications regarding the characterization of their experiences, which were incorporated into the final analysis. Peer debriefing was conducted through consultation with a colleague experienced in qualitative EFL research, who reviewed the codebook and raised questions about potential alternative interpretations, thereby strengthening the analytical rigor of the final account. An audit trail was maintained throughout, documenting all coding decisions, theme revisions, and analytical choices to ensure transparency and replicability of the analytical process. A thick description of the research context, participants, and procedures was prioritized throughout reporting to support transferability of the findings to comparable EFL instructional settings.

■ RESULT AND DISCUSSION

Thematic analysis of classroom observations, semi-structured interview transcripts, and participant documents yielded four principal themes characterizing how Zoom Meeting-based presentations shape EFL learners' speaking anxiety and confidence: (1) reduction in speaking anxiety, (2) enhanced preparedness, (3) improved focus and control, and (4) challenges and limitations. Table 1 provides a consolidated overview of these themes, along with the corresponding Zoom features implicated in each and the number of participants who reported them. Figure 1 illustrates the relational pathways through which specific Zoom features connect to psychological mechanisms and perceived outcomes. Table 2 presents a triangulation matrix summarizing how evidence from each data source converged across the four themes. Taken together, the findings both corroborate and extend prior scholarship on technology-

Table 1. Summary of emergent themes from zoom meeting-based presentation experiences

No	Theme	Key Features	Participants Reporting
1	Reduction in Speaking Anxiety	Camera control (off), hidden notes, home environment comfort	6/6 ^a
2	Enhanced Preparedness	Private rehearsal via Zoom, screen sharing, self-review of recordings	6/6
3	Improved Focus and Control	Interface customization, minimized self-view, directed audience attention	5/6
4	Challenges and Limitations	Technical difficulties, absence of non-verbal feedback, and reduced social presence	6/6

mediated language learning, while revealing important nuances regarding the dual affordance-constraint character of virtual presentation environments.

Reduction in Speaking Anxiety

Five of the six participants reported that Zoom's camera control functionality constituted the most consequential anxiety-reducing feature available to them. By turning off their cameras, students were able to redirect cognitive and attentional resources away from self-presentation concerns toward the linguistic demands of speaking. Participant 1 articulated this reallocation of attention:

“When I am using Zoom, I can focus on what I am saying because I do not have to worry about what I look like to other people.” (P1, female, undergraduate EFL student)

Participant 3 similarly described how camera deactivation altered the experience of the presentation:

“In regular class, I always think about my gestures, my facial expressions, whether I look nervous. But on Zoom with camera off, I just think about my words.” (P3, female, undergraduate EFL student).

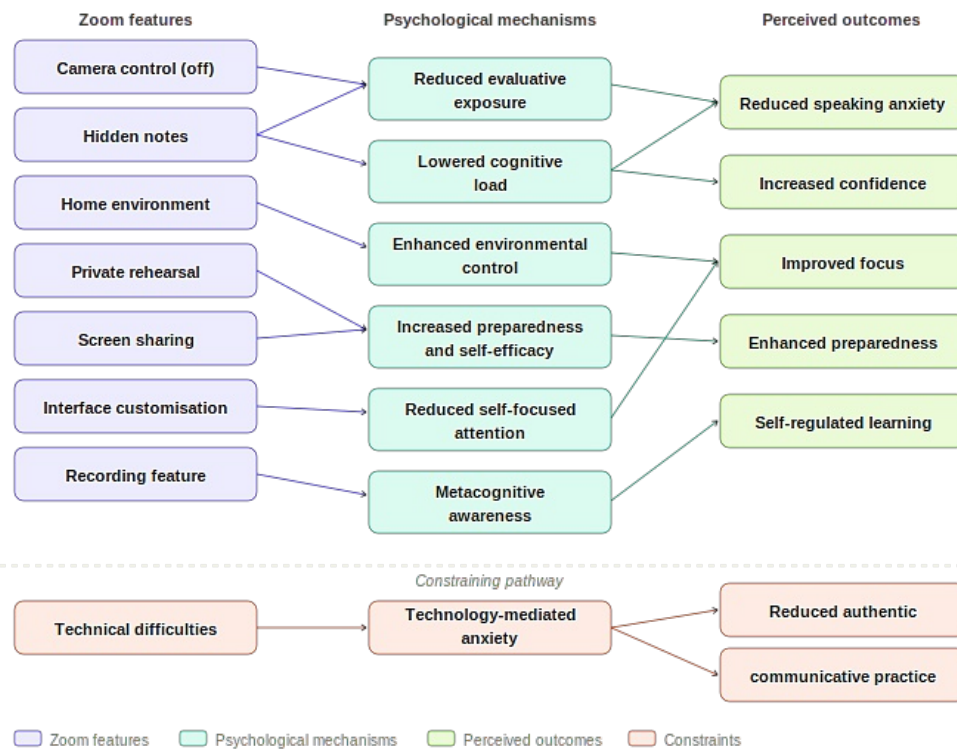


Figure 1. Concept map: Zoom features, psychological mechanisms, and perceived outcomes

Observational data corroborated these interview accounts in meaningful ways. Across the three observation sessions, participants who deactivated their cameras exhibited notably fewer hesitation behaviors, including mid-sentence pauses, self-corrections, and filler-word insertions, compared with earlier sessions when cameras remained active. Field notes documented a consistent pattern in which camera deactivation was followed by more sustained and fluent delivery, suggesting that removing self-presentation demands produced observable shifts in speech production quality. These behavioral patterns were further supported by document analysis: participants'

self-reflection essays consistently described the camera-off condition as producing a qualitative shift in cognitive focus, with several students using language such as feeling "freer to concentrate" and "less watched" when the camera was deactivated.

These converging accounts from three data sources are interpretable through the lens of performance anxiety theory. Horwitz et al. (1986) identified fear of negative evaluation as a core dimension of foreign language classroom anxiety. By concealing the presenter from direct audience observation, camera deactivation effectively diminishes the evaluative salience of the performance context.

Table 2. Data triangulation matrix: Convergence of evidence across themes and data sources

Theme	Observation Evidence	Interview Evidence	Document Evidence (Reflection Essays)	Convergence
Reduction in Speaking Anxiety	Participants with the camera off showed fewer hesitation behaviors and more sustained eye contact with the slides; gaze redirection to adjacent screens was noted during hidden note use	All 6 participants attributed anxiety reduction to at least one platform feature; camera-off was described as redirecting cognitive attention	Students described feeling "safer" and "more in control" in written reflections; reduced self-monitoring noted as key benefit	Strong convergence across all three sources
Enhanced Preparedness	Participants who reported more Zoom rehearsal sessions demonstrated superior discourse coherence during observed presentations; slide-guided delivery maintained across all sessions	All 6 reported private rehearsal as valuable; iterative practice cycles described in detail	Reflection essays documented specific improvements noticed between rehearsal and final delivery; timing and content sequencing identified as areas of self-correction	Strong convergence across all three sources
Improved Focus and Control	Interface customization behaviors observed in 5 of 6 participants; self-view minimization and speaker view adoption documented during sessions	5 of 6 attributed improved focus to interface control; gallery view management described as reducing distraction	Written reflections noted that controlling the visual environment supported concentration; one participant described deliberate pre-presentation setup routine	Strong convergence; one participant did not report this theme
Challenges and Limitations	Technical disruptions including connectivity loss and audio latency documented across all three observation sessions; non-verbal feedback limitation observable in one-directional delivery patterns	All 6 reported technical difficulties; 4 identified absence of non-verbal feedback as communicative constraint	Reflection essays described frustration with technical interruptions; several participants noted uncertainty about audience comprehension without visual feedback	Strong convergence across all three sources

MacIntyre and Gardner (1994) further demonstrated that anxiety specifically impairs cognitive processing during language production, which helps explain why removing the self-presentation burden yields gains in perceived and observed fluency. The finding extends Erdiana et al.'s (2020) identification of low self-esteem and fear of making mistakes as primary anxiety triggers, illustrating how specific technological affordances can operationally address these psychological barriers in ways that general online formats cannot.

All six participants reported using hidden notes during Zoom presentations, and four explicitly attributed a significant confidence boost to this capability. Participant 2 explained:

"I know my English is not perfect, so sometimes I forget words or grammar. When I have my notes next to my screen, I feel safe. I know I can check if I need help." (P2, male, undergraduate EFL student)

Participant 5 highlighted the distinction between face-to-face and virtual note use in terms of social visibility:

"In face-to-face presentation, if you look at notes too much, people think you are not prepared. But on Zoom, nobody knows I am looking at notes. This makes me less worried about forgetting something." (P5, female, undergraduate EFL student).

Observational data corroborated these accounts: video recordings documented that participants frequently directed their gaze to adjacent screens while maintaining comparatively fluent delivery, a behavioral pattern consistent with active note consultation. This pattern was particularly pronounced during the early cycles of the program. It became less frequent in later sessions, suggesting that repeated practice may have reduced participants' reliance on reference materials over time. Document analysis of self-reflection essays reinforced this trajectory: several participants noted in their written reflections that knowing notes were available reduced anticipatory anxiety, even when they ultimately did not need to consult them, functioning as what one participant described as a "psychological safety net" rather than a crutch actively deployed throughout delivery.

It is essential at this point to draw a conceptual distinction that the data make visible, but that prior Zoom studies have not

adequately theorized. Camera deactivation and access to hidden notes reduce anxiety during the presentation, but they do so by removing precisely the conditions that authentic communicative interactions routinely demand. The anxiety reduction that Zoom's features produce is therefore context-specific, operating within the managed, scaffolded presentation environment rather than transferring to spontaneous, interactive communication that real-world contexts require. This distinction has direct implications for how instructors interpret gains in Zoom-based presentation contexts and how much confidence they attribute to platform-supported improvements.

A third anxiety-reducing mechanism was the comfort afforded by presenting from a familiar domestic environment, reported by four participants. Participant 4 stated:

"When I present from my room, I feel more relaxed. This is my space. In the classroom, I feel everyone is watching and judging me." (P4, male, undergraduate EFL student)

Reflection essays from these four participants echoed this perception, with accounts describing the home environment as reducing the social-evaluative pressure that physical classroom settings typically generate. This resonates with Rahmat's (2023) finding that presenting from home reduces social anxiety by replacing a public, high-stakes evaluative context with a private, self-controlled environment.

Enhanced Preparedness

All six participants reported that Zoom's private rehearsal capabilities substantially enhanced their sense of preparedness for formal presentations. The ability to simulate the actual presentation environment, including slide display, audio monitoring, and screen layout, prior to the evaluation of delivery was identified as particularly valuable. Participant 1 described her preparation practice:

"I can open Zoom alone in my room and practice like it is a real presentation. I can see how my slides look, practice my timing, and try different ways to say things." (P1, female, undergraduate EFL student)

Participant 3 provided a particularly detailed account of iterative preparation:

"I practiced my presentation five times on Zoom before the real one. Each time I

found something to improve—maybe my pronunciation, or the order of information. By the real presentation, I felt very ready." (P3, female, undergraduate EFL student)

Observational data provided important corroborating evidence for these self-reported patterns. Participants who reported more extensive private rehearsal demonstrated notably stronger discourse coherence during observed presentation sessions, maintaining clearer topical structure and smoother transitions between sections. Field notes recorded that slide-guided delivery was consistent across all six participants, with visual supports functioning as organizational anchors that reduced mid-delivery disorientation. Document analysis of self-reflection essays reinforced this pattern: participants' written accounts documented specific areas they identified and corrected during rehearsal, including timing adjustments, content sequencing, and pronunciation of technical terms. These documented self-correction cycles are consistent with the principles of deliberate practice theory (Ericsson, 2008), which posits that skill acquisition is optimized through focused, iterative practice aimed at identifying and addressing specific performance deficits.

What makes Zoom rehearsal distinctively valuable compared to other preparation methods, such as practicing in front of a mirror or rehearsing with presentation software alone, is environmental fidelity. Zoom rehearsal replicates the precise visual and auditory conditions of actual delivery, including the gallery view of participants, the screen-sharing interface, and the audio monitoring experience. This environmental correspondence reduces the transfer gap between practice and performance, allowing students to rehearse not only content but also the specific cognitive demands of managing the Zoom interface during presentations. This extends Marek et al.'s (2021) observation that online platforms afford learners greater autonomy over learning processes by demonstrating that this autonomy is particularly consequential for managing speaking anxiety (Zuo & Wang, 2023).

Three participants also reported that the recording feature, initially experienced as anxiety-inducing, ultimately served a productive formative function. Participant 2 recounted:

"At first, I didn't like that presentations could be recorded. But then I asked my friend to record my practice, and I

watched it. I could see my mistakes and fix them before the real presentation. This made me more confident." (P2, male, undergraduate EFL student)

Reflection essays from these three participants explicitly documented this reframing trajectory, describing the shift from viewing recordings as evaluative threats to treating them as diagnostic tools. This finding is consistent with Xu et al.'s (2022) work on mobile-assisted feedback, which identified self-review of recorded performances as a means of supporting metacognitive awareness of delivery quality.

Improved Focus and Control

A third convergent theme concerned the degree of environmental control that Zoom's interface design afforded presenters, and the consequent facilitation of focused language production. Participant 4 articulated this sense of controlled attention:

"Zoom allows me to control what my audience sees, which helps me when presenting because I'm not distracted by their reactions or movements." (P4, male, undergraduate EFL student)

Participant 6 contrasted this experience with the distributed attention demands of the physical classroom:

"In a real classroom, you can see people looking at their phones or talking to each other. On Zoom, you just see the screen and maybe some faces in gallery view. It's easier to concentrate on speaking." (P6, female, undergraduate EFL student)

Observational data supported these accounts. Field notes documented that participants consistently maintained more sustained engagement with their presentation content during Zoom sessions than was reported in the pre-study context questionnaire regarding face-to-face experience. Five of the six participants were observed actively configuring their Zoom interface prior to presenting, adjusting self-view, participant display, and screen-sharing settings in ways consistent with their interview accounts of deliberate focus management. These behavioral observations align with Kang's (2005) concept of situational willingness to communicate: participants' readiness to engage appeared to increase with the use of a controlled Zoom interface, suggesting that environmental management directly influenced affective states

during delivery (Kang, 2005; Lomicka & Lord, 2019; Peng, 2014).

Self-reflection essays provided further evidence for this theme. Written accounts from five participants described deliberate pre-presentation Zoom setup as a routine that served as a form of anxiety management, with configuring the interface itself providing a sense of preparedness and control before delivery began. This degree of interface personalization reflects learner agency in constructing psychologically optimal performance conditions (Hrastinski, 2019; Reinders & Wattana, 2015; Rini et al., 2021; Shamsi et al., 2019).

However, three participants acknowledged a consequential trade-off inherent in reduced audience visibility. Participant 3 observed:

"Sometimes I don't know if people understand me or if they are interested. In face-to-face, I can see faces and know if I need to explain more or speak slower." (P3, female, undergraduate EFL student)

This limitation signals an important tension between anxiety reduction and authentic communicative development that is examined in depth in the synthesis below.

Challenges and Limitations

Despite the predominantly positive perceptions reported above, participants identified several significant limitations of Zoom-based presentations that constrained its utility as a comprehensive tool for speaking development. Technical difficulties were the most universally reported challenge, cited by all six participants. Internet connectivity problems produced disruptions ranging from minor audio delays to complete session disconnections. Participant 5 described the acute anxiety induced by such failures:

"One time during my presentation, my internet stopped working. I had to restart everything and felt very stressed. All my preparation didn't matter because of the technology problem." (P5, female, undergraduate EFL student)

Participant 2 identified latency as a qualitatively disruptive phenomenon:

"Sometimes there is a delay between when I speak and when others hear me. This makes conversation difficult and feels awkward." (P2, male, undergraduate

EFL student).

Observational data confirmed the prevalence and disruptive character of technical difficulties. Across all three observation sessions, instances of audio latency, video freezing, and temporary disconnection were documented for multiple participants, with these incidents consistently corresponding to visible behavioral disruptions, including loss of delivery rhythm, visible frustration responses, and prolonged silences during reconnection attempts. Document analysis of self-reflection essays reinforced the anxiety-generating dimension of these technical failures: participants' written accounts described technology-induced disruptions as producing a distinct form of anxiety qualitatively different from the speaking anxiety the platform was intended to reduce, arising not from fear of evaluation but from loss of control over the communicative situation itself.

These findings align with Hrastinski (2019) and Marek et al. (2021), both of whom identified technical unreliability as a fundamental constraint on the effectiveness of online learning. For EFL learners specifically, technical interruptions may be particularly detrimental because they fragment the flow of language production at precisely the moments when fluency consolidation is most critical.

The absence of non-verbal feedback and real-time audience engagement emerged as another substantive limitation, reported by four participants. Participant 4 articulated the communicative implications:

"I can't see people's full reactions on Zoom. In the classroom, I can tell when someone looks confused and explain more clearly. On Zoom, I just keep talking and hope they understand." (P4, male, undergraduate EFL student)

Participant 6 conveyed a broader sense of communicative disconnection:

"It feels less real somehow. Like I am talking to a computer, not to people. In face-to-face, there is more energy and connection." (P6, female, undergraduate EFL student).

Observational evidence supported this finding through a different lens. Field notes documented that when participants delivered to audiences with cameras predominantly off, their delivery exhibited less adaptive discourse management, with fewer instances of

comprehension checks, pace adjustments, or audience-directed elaboration than when visible audience reactions were present. This behavioral pattern suggests that the absence of non-verbal feedback not only reduces the subjective experience of connection but may also materially affect the quality of communicative adaptation during delivery. Reflection essays from four participants explicitly noted this as a developmental concern, with written accounts expressing uncertainty about whether their communication was effective without the visual confirmation that face-to-face settings provide. These observations highlight a fundamental tension in technology-mediated language learning: while reduced social presence may alleviate performance anxiety, it simultaneously attenuates the authentic communicative conditions necessary for the development of sociolinguistic competence (Canale & Swain, 1980; Nurieva & Garaeva, 2022; Zuo & Wang, 2023).

Synthesis: Zoom's Affordances, Constraints, and the Anxiety-Authenticity Tension

Synthesizing the four themes yields a coherent theoretical interpretation of Zoom's role in EFL presentation contexts, one that demands a careful distinction between two concepts that prior literature has insufficiently separated. The present study documents how Zoom's features shape the affective and cognitive conditions of presentation performance, producing perceptions of reduced anxiety, enhanced preparedness, and improved focus. What the study does not and cannot establish is whether these perceptual gains reflect durable improvements in underlying communicative competence. Anxiety management during a supported presentation event and the development of authentic speaking proficiency are not equivalent outcomes. The former requires only that Zoom's scaffolding features lower the immediate affective filter sufficiently to enable performance. The latter requires that learners internalize communicative capabilities that function independently of technological support across varied real-world contexts. A six-week qualitative case study without longitudinal performance measurement is well suited to documenting the first, but not the second. This distinction is not a limitation of the findings but a necessary clarification of what they mean.

With this distinction established, the platform's dual character becomes analytically productive rather than merely paradoxical. Zoom functions simultaneously as an anxiety-

reducing scaffold and as a communicative context with inherent constraints on authentic interaction. This duality reflects broader debates in computer-assisted language learning about whether technology replicates or transforms language learning experiences (Laili & Nashir, 2021). The present data suggest that Zoom does not replicate face-to-face interaction in virtual form; rather, it creates a qualitatively distinct communicative context characterized by reduced evaluative exposure and enhanced environmental control on one side, and attenuated social presence and unpredictable technical conditions on the other.

The most productive theoretical framing for these findings is Vygotsky's (1978) scaffolding construct. Zoom's anxiety-reducing features, including camera control, hidden notes, home-environment comfort, and interface customization, function collectively as temporary technological scaffolds that enable anxious learners to perform at levels of fluency and confidence otherwise unattainable in high-pressure face-to-face contexts. The developmental logic of scaffolding, however, requires that supports be progressively removed as competence grows, such that learners gradually internalize the capabilities that scaffolding initially externalizes (Lantolf & Thorne, 2006). This is where the most critical pedagogical risk of Zoom-based presentations becomes visible.

Participants who most heavily relied on camera-off functionality and hidden notes were the same participants who expressed the greatest uncertainty about their ability to present confidently in face-to-face settings. Participant 2, who described hidden notes as providing a sense of safety, also noted in a follow-up exchange that presenting without them would feel "very different and much harder." Participant 1, who systematically configured Zoom to minimize self-view and maximize slide visibility, acknowledged that "in a real classroom I cannot control what people see and that makes me more nervous." These accounts provide participant-level empirical grounding for a concern that the data surface but the study's design cannot resolve: that prolonged and unreflective dependence on Zoom's comfort-enhancing features risks functioning as a pedagogical crutch, a support structure that initially enables performance but, if not progressively withdrawn, may inhibit the development of the unassisted, responsive communicative capabilities that professional and academic contexts ultimately require. The crutch risk is not hypothetical in this dataset; it is signaled in the voices of the participants themselves.

This tension is most usefully understood not as a reason to avoid Zoom-based presentations but as a reason to design them deliberately. From the perspective of affective filter theory (Krashen, 1982), Zoom's affordances lower the affective filter through particular mechanisms, specifically enhanced environmental control, reduced evaluative visibility, and reduced cognitive load, that directly address the primary sources of foreign language anxiety identified by Horwitz et al. (1986). This specificity is valuable: it suggests that anxiety reduction in technology-mediated contexts is not an automatic function of the online format but depends on which features are available and how they are deployed. Dewaele and MacIntyre (2014) further note that anxiety and enjoyment coexist and shift dynamically as task conditions change, reinforcing the case for a pedagogical design that progressively adjusts support as learner confidence develops. The data are therefore consistent with conceptualizing Zoom as a potential scaffolding environment for highly anxious learners. However, whether it genuinely enables progressive transition to more demanding communicative contexts remains an empirical question this study is not positioned to resolve. Taken together, these theoretical perspectives suggest that Zoom's pedagogical value lies not in the online format itself. However, in the deliberate and context-sensitive deployment of its specific features, a conclusion that has direct implications for how instructors design and sequence technology-mediated speaking tasks.

Pedagogical Implications

The findings carry several important implications for EFL instruction. First, educators should approach Zoom's anxiety-reducing features as deliberate, temporary scaffolds rather than permanent accommodations, and design instructional sequences that progressively reintroduce authentic communicative demands as learners' confidence develops. A graduated release-of-responsibility model, in which initial presentations permit maximum use of supportive features and subsequent tasks incrementally reduce this support, would align the platform's affordances with sound second language pedagogical principles (Walqui, 2006).

Second, instructors should actively compensate for the social presence deficit inherent in virtual presentations by incorporating interactive Zoom functionalities, including live polls, breakout rooms, and annotation tools, that partially restore authentic

audience engagement (Ifenthaler et al., 2023). Such design interventions can maintain the platform's anxiety-reducing benefits while providing more robust communicative feedback.

Third, technical preparation should be integrated systematically into online presentation pedagogy. Equipping students with troubleshooting competencies and contingency strategies may reduce technology-induced anxiety and ensure that technical disruptions do not overshadow linguistic development goals (Marek et al., 2021). Fourth, the recording feature should be positioned explicitly as a formative self-evaluation tool, building on the finding that self-review of recorded performances supports metacognitive awareness of delivery quality when framed as developmental rather than evaluative (Xu et al., 2022).

CONCLUSION

This study explored EFL students' perceptions and lived experiences of Zoom Meeting-based presentations in an Indonesian university context, with particular attention to how specific platform features were perceived to influence speaking anxiety and presentational confidence. Through qualitative analysis of classroom observations, semi-structured interviews, and participant documents, the study identified four principal themes characterizing students' engagement with the platform: reduction in speaking anxiety through camera control and hidden notes features, enhanced preparedness through private rehearsal opportunities, improved focus through interface customization, and a set of meaningful constraints including technical difficulties and reduced authentic communicative interaction.

The findings suggest that Zoom's platform-specific affordances are perceived by EFL learners as meaningfully shaping the affective and cognitive conditions of formal presentation performance. Students consistently identified specific features, rather than the online format in general, as consequential to their experience, underscoring the importance of feature-level analysis in research on technology-mediated language learning. Camera deactivation, hidden note access, and private rehearsal capabilities each addressed distinct dimensions of speaking anxiety, operating through separable psychological mechanisms including reduced evaluative exposure, externalized cognitive load, and environmental familiarity. These perceptions carry practical value for educators seeking to understand how the affordances of widely

available platforms can be leveraged to support students with elevated speaking anxiety.

At the same time, the findings reveal a tension that warrants careful pedagogical attention. The features that participants found most anxiety-reducing, particularly camera-off functionality and hidden notes, do so by removing conditions that authentic communicative interaction routinely demands. Prolonged and unreflective dependence on these features risks producing what might be characterized as a scaffolding dependency: a situation in which the support that initially enables performance gradually inhibits the development of the unassisted, responsive communicative capabilities that real-world academic and professional contexts require (Lantolf & Thorne, 2006; Vygotsky, 1978). The present data cannot determine whether this risk materialized for any participant, since the study's six-week scope and qualitative design were not structured to measure changes in underlying linguistic competence over time. What the data do establish is that students themselves recognized this tension, with several participants expressing uncertainty about their ability to transfer Zoom-based confidence to face-to-face speaking contexts. This recognition suggests a degree of metacognitive awareness that pedagogical design should actively cultivate and build upon.

These findings carry several implications for EFL instruction in technology-mediated contexts. First, educators should approach Zoom's anxiety-reducing features as deliberate, temporary scaffolds rather than permanent accommodations, and design instructional sequences that progressively reintroduce authentic communicative demands as learners' confidence develops. A graduated release-of-responsibility model, in which initial presentations permit maximum use of supportive features and subsequent tasks incrementally reduce this support, would align the platform's affordances with sound second language pedagogical principles (Walqui, 2006; Young, 1991). Second, instructors should actively compensate for the social presence deficit inherent in virtual presentations by incorporating interactive Zoom functionalities, including live polls, breakout rooms, and annotation tools, that partially restore authentic audience engagement (Ifenthaler et al., 2023). Third, technical preparation should be systematically integrated into online presentation pedagogy, equipping students with troubleshooting competencies and contingency strategies so that technical disruptions do not undermine the task's linguistic development goals (Marek et al., 2021). Fourth, the

recording feature should be positioned explicitly as a formative self-evaluation tool, building on the finding that self-review of recorded performances supports metacognitive awareness of delivery quality when framed as developmental rather than evaluative (Xu et al., 2022).

Several limitations bound the scope of these findings and point toward directions for future research. The small sample of six participants and the single-context design restrict the extent to which findings can be transferred to other institutional settings, proficiency levels, or cultural contexts. The six-week timeframe captured students' perceptions within a bounded instructional period but did not enable tracking of whether the confidence gains reported during Zoom-based presentations were sustained or transferred to other speaking contexts over time. The exclusive focus on student perspectives means that teacher experiences, instructional decision-making, and the pedagogical reasoning behind feature use remain unexamined dimensions of the phenomenon.

Future research should address these limitations through designs that extend both the temporal and contextual scope of inquiry. Longitudinal studies tracking students' speaking confidence and performance across Zoom-based and face-to-face presentation contexts over an academic year or longer would provide evidence on whether and under what conditions the perceived benefits of platform-supported anxiety management translate into durable communicative development. Whether Zoom can genuinely function as a stepping stone toward confident face-to-face communication, as several participants speculated and as the scaffolding framing suggests is theoretically possible, remains an empirically open question that the present study is positioned to motivate but not to answer. Comparative designs examining students with varying initial anxiety profiles would illuminate how individual differences moderate the relationship between platform affordances and affective outcomes. Studies incorporating teacher perspectives and objective performance measures, such as pre- and post-rated speaking assessments, would strengthen both the methodological comprehensiveness and the practical applicability of findings in this area. As online and hybrid learning environments continue to evolve structurally within higher education, research that carefully attends to the specific mechanisms by which platform features shape learners' psychological states will remain essential to ensuring that technology integration serves the

communicative goals it is intended to support.

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■ DECLARATION OF GENERATIVE AI USAGE IN THE WRITING PROCESS

During the writing of this manuscript, the authors employed Claude (Anthropic) to assist with language refinement and proofreading. The authors have reviewed and edited the content generated by this tool and assume full responsibility for the content of the published article.

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