# ADDRESSING ENGLISH SPEAKING ANXIETY IN VIRTUAL SCIENTIFIC WRITING CLASSROOM

Suciana Wijirahayu<sup>1</sup>, Emilia Roza<sup>2</sup>, Novi Andayani Praptiningsih<sup>3</sup> Faculty of Teacher Training and Education, Universitas Muhammadiyah Prof. DR HAMKA, Indonesia<sup>1</sup>

Faculty of Industrial Technology and Informatics, Universitas Muhammadiyah Prof. DR HAMKA, Indonesia<sup>2</sup>

Faculty of Social and Political Science, Universitas Muhammadiyah Prof. DR HAMKA, Indonesia<sup>3</sup>

Corresponding Author: sucianawijirahayu@uhamka.ac.id

#### Abstract

This study investigated English speaking anxiety in 22 English education scholars within a virtual scientific writing classroom. Chosen for their dual role as advanced learners and future pedagogues, participants completed a custom 10-item questionnaire. Findings reveal that limited real-world English exposure (81%) and the learning environment significantly fuel anxiety. Key inhibitors include a desire to be heard before correction (68%) and fear of intense grammar feedback (59%) or mockery (54%). Physiological symptoms were also common. The study emphasizes that fostering a psychologically safe virtual space is crucial. Pedagogical implications highlight the need for nuanced approaches, prioritizing fluency and empathetic feedback, potentially through innovative methods, to empower these scholars and future educators.

**Keywords:** Speaking anxiety; English Education; Scientific Writing; Virtual class

## **INTRODUCTION**

The landscape of global scientific communication is increasingly dominated by English, establishing it as the lingua franca for disseminating research, fostering collaboration, and engaging with international academic discourse. For scholars worldwide, particularly those whose first language is not English (Non-Native English Speakers - NNES), achieving proficiency in English, encompassing both written and oral communication, is paramount for active participation and career progression. While extensive focus is often placed on written scientific output, the ability to articulate complex research findings, methodologies, and arguments verbally—whether in virtual conferences, thesis defences, or collaborative online discussions—is equally critical. This necessitates not only strong linguistic competence but also confidence in spoken English within highly specialized academic contexts (Hoter et al., 2023; Wijirahayu & Dorand, 2018).

This study particularly focuses on English education scholars within a virtual scientific writing classroom. This cohort presents a unique and compelling case for investigation, as they are not only navigating the complexities of scientific English as learners but are also simultaneously developing their understanding of language pedagogy as future educators. Their insights into language anxiety are thus informed by both lived experience and theoretical knowledge, offering a profound perspective on the challenges of academic oral communication (Cancino & Cabello, 2024; Irawan, Warni & Wijirahayu, 2018). Despite the clear importance of spoken scientific English and the pervasive nature of language anxiety in virtual settings, specific research addressing these interconnected issues within this specialized academic population remains underexplored. This gap highlights a critical need to understand their anxieties to develop more effective and supportive instructional strategies.

Therefore, this research further delves into how the dual roles of being a learner of scientific English and a future language educator influence the manifestation and perception of language anxiety within this specific cohort. It also seeks to identify the strategies that English education scholars employ to cope with or mitigate language anxiety during virtual academic oral

communication. Ultimately, the findings of this research will inform the development of more effective and supportive pedagogical approaches aimed at enhancing academic oral communication skills and reducing language anxiety for English education scholars in virtual learning environments.

#### **METHOD**

This study utilized a descriptive research design with a survey methodology to investigate English speaking anxiety among 22 English education scholars in a virtual scientific writing classroom. All participants were actively enrolled in a postgraduate English education program and concurrently taking an online scientific writing course in English. This cohort was specifically chosen because of their unique dual position: they are advanced language learners navigating complex academic discourse and future educator with a theoretical understanding of language acquisition and anxiety. All participants voluntarily provided informed consent before data collection.

Data was primarily collected using a custom-designed, ten-item questionnaire tailored to the context of English speaking anxiety in a virtual scientific writing environment. The questionnaire included Likert-scale questions to quantify self-reported anxiety levels, perceptions of anxiety triggers, and the perceived impact of anxiety on learning and participation. Additionally, openended questions were integrated to capture richer, qualitative insights into personal experiences, coping strategies, and suggestions for pedagogical support. The instrument was developed based on established theoretical frameworks of language anxiety and refined for relevance and clarity for this specific academic population.

The questionnaire was administered electronically via a secure online platform, ensuring participant anonymity and confidentiality. Participants received an invitation with a direct link and clear instructions, with periodic reminders sent to maximize participation. Upon completion, responses were meticulously compiled for analysis. Quantitative data from the Likert-scale items were analysed using descriptive to identify prevalent patterns and trends. Qualitative data from the open-ended questions underwent thematic analysis, involving careful reading and coding to identify recurring themes, unique insights, and underlying factors contributing to or alleviating speaking anxiety. Findings from both quantitative and qualitative analyses were then triangulated to provide a comprehensive understanding of the phenomenon within this distinct group of scholars.

## RESULTS AND DISCUSSION

This section presents the findings from the survey conducted with 22 English education scholars in a virtual scientific writing classroom, detailing their self-reported English speaking anxiety and its influencing factors. Data analysis, combining descriptive statistics for quantitative items and thematic analysis for qualitative responses, revealed key patterns and insights into the specific challenges faced by this unique cohort. The results are presented in relation to the primary themes that emerged, including the impact of environmental exposure, the psychological landscape of the learning environment, preferences for feedback, and the various manifestations of speaking anxiety.

#### Result

This finding, as illustrated in Figure 1, indicates a significant challenge for the participants, as 81% of respondents reported that English is rarely spoken in their surroundings.

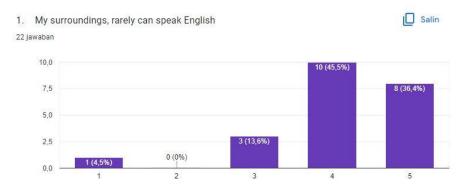


Figure 1. English usage in the immediate area

This low exposure to English in daily life outside the academic setting suggests limited opportunities for organic language practice and immersion. For non-native English speakers, especially those striving for proficiency in academic contexts, the scarcity of English use in their immediate environment can hinder natural language acquisition and reinforcement, potentially contributing to higher levels of language anxiety when opportunities for active communication arise.

Another finding highlights the profound impact of a supportive linguistic environment on learners' motivation and engagement. As evidenced by 63% of respondents indicating that non-judgmental reactions from their surroundings significantly increased their enthusiasm for learning to speak English (Figure 2), the psychological safety of the learning space is paramount.

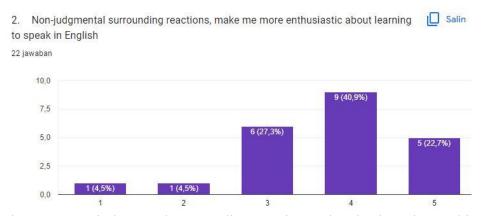


Figure 2. Non-judgmental surrounding reaction and enthusiasm in speaking English

When learners, particularly non-native speakers, perceive that their attempts at communication will be met with understanding rather than criticism, their fear of making mistakes diminishes. This reduction in apprehension fosters greater confidence, encourages more frequent participation, and ultimately cultivates a more positive and effective learning experience. This underscores the critical role of educators and peers in creating an empathetic and encouraging atmosphere, which is essential for mitigating speaking anxiety and boosting the motivation required for active oral communication development.

This next finding, supported by a significant 68% of participants, who agreed with the statement 'When I speak English, I want to be heard first before correction' (Figure 3), provides a crucial insight into learners' preferences for receiving feedback during oral communication

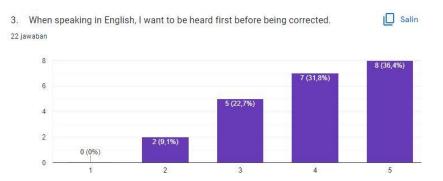


Figure 3. Expectation about ways of hot correction

It underscores a strong desire among non-native English speakers to prioritize fluency and message conveyance over immediate grammatical accuracy. For these scholars, being listened to attentively validates their communicative effort and builds confidence, whereas immediate correction can be perceived as an interruption that disrupts their thought process and increases anxiety. This preference highlights the importance of creating a psychologically safe environment where the primary goal is effective communication, with constructive feedback provided in a timely yet non-intrusive manner that doesn't stifle the learners' willingness to speak.

The finding in Figure 4 further underscores the critical role of feedback delivery in fostering or hindering learners' willingness to communicate.



Figure 4 Grammatical correction and speaking anxiety

With 59% of respondents agreeing that overly intense grammar correction made them afraid to attempt speaking in English (Figure 4), it becomes clear that an excessive focus on linguistic accuracy can inadvertently create a significant barrier to oral participation. When learners perceive that every utterance will be meticulously scrutinized for grammatical errors, it shifts their attention from conveying meaning to avoiding mistakes, leading to heightened anxiety and a reluctance to take communicative risks. This preference aligns with the earlier finding regarding the desire to be heard before correction, reinforcing the idea that a balance between promoting accuracy and encouraging fluency is essential for cultivating a supportive environment that genuinely promotes spoken English proficiency.

The finding points to a significant source of apprehension for a considerable portion of the participants, with 54% expressing concern that their accent or fluency might be mocked (Figure 5).

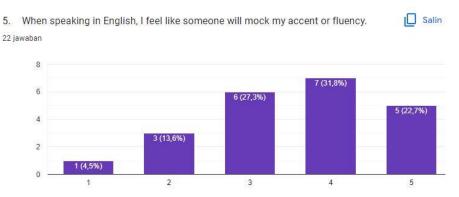


Figure 5 Accent, fluency and speaking anxiety

This fear of ridicule, even if not always actualized, is a powerful inhibitor of spontaneous communication and can severely impact a learner's willingness to engage in spoken English. It creates a psychological barrier where self-consciousness about one's accent or perceived lack of fluency overrides the desire to communicate, leading to silence or minimal participation. This highlights the critical need for educational environments, particularly in virtual settings, to actively foster an atmosphere of acceptance and respect, ensuring that learners feel safe and valued regardless of their accent or current level of fluency, thereby encouraging authentic and confident oral practice.

The next finding provides concrete evidence of the physiological manifestations of language anxiety among a significant portion of the participants, with 53% reporting experiencing cold palms and a racing heart during introductions and presentations (Figure 6).

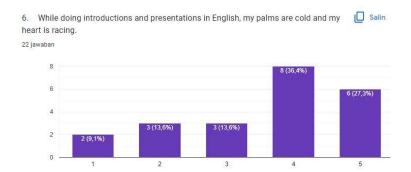


Figure 6 Anxiety in introducing and presenting ideas in English

These somatic symptoms are classic indicators of the "fight-or-flight" response, revealing a heightened state of stress and apprehension associated with public speaking in English. For scholars, particularly those navigating complex academic discourse, such physical reactions can profoundly impede cognitive functions, affecting memory recall, articulation clarity, and overall performance. This underscores the deep-seated nature of speaking anxiety beyond mere psychological discomfort, highlighting the critical need for strategies that address both the mental and physical dimensions of anxiety to foster a more comfortable and effective oral communication experience.

The further finding highlights the pervasive impact of the learning environment on learners' willingness to engage in oral communication, with 36% of respondents indicating that their environment made them afraid to make mistakes during English speaking activities (Figure 7).

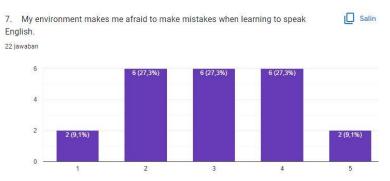


Figure 7 Environment and anxiety to make mistakes in speaking English

While not as high as the concerns about mockery or intense correction, this percentage still points to a significant segment of learners who perceive their surroundings as a source of apprehension. The fear of making mistakes, whether stemming from peer judgment, perceived instructor expectations, or a generally unsupportive atmosphere, acts as a powerful barrier. It can lead to self-censorship, reduced participation, and reluctance to experiment with the language, ultimately impeding the natural acquisition of fluency. This underscores the continuous need for educators to cultivate truly safe and encouraging spaces where error-making is viewed as an integral part of the learning process rather than a source of embarrassment or criticism.

This particular finding offers a nuanced perspective on the learners' experiences, as 59% of respondents reported not having received ridicule regarding their English skills (Figure 8).

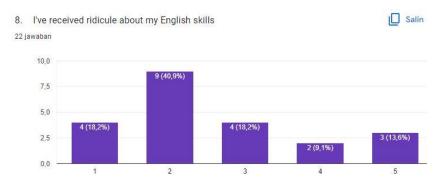


Figure 8 Experience of ridicule about English skills

While a previous finding indicated a significant fear of mockery (54% in Figure 5), this data suggests that, for the majority of participants, this apprehension may be more of an internal concern or a general anxiety about judgment rather than a direct consequence of actual negative experiences within their current learning environment. This discrepancy between the high fear of ridicule and the lower incidence of actual ridicule underscores the vital importance of actively maintaining and reinforcing a non-judgmental atmosphere. Such an environment is crucial not only to prevent overt negativity but also to proactively mitigate the learners' self-perceived vulnerability, thereby fostering greater confidence and willingness to communicate without the crippling anticipation of criticism.

This finding highlights a critical pedagogical challenge, as a substantial 81% of respondents reported that overly strict teachers made them afraid to attempt speaking English and to make mistakes (Figure 9).

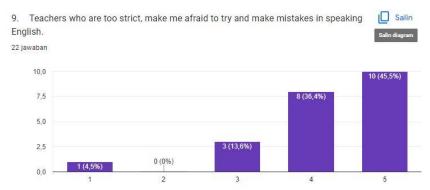


Figure 9 Teaching style and anxiety to take a risk to make mistake in English speaking

This percentage underscores the profound impact of instructional style on learners' psychological comfort and willingness to engage. When teachers adopt an overly strict approach, particularly regarding error correction or adherence to rigid grammatical rules, it can inadvertently create a high-stakes environment where the fear of failure overshadows the desire to communicate. This punitive atmosphere discourages risk-taking, leading to self-censorship and reluctance to practice, directly impeding the development of fluency. Such a perception of strictness can significantly contribute to speaking anxiety, emphasizing the imperative for educators to adopt supportive and encouraging methodologies that prioritize communicative competence while providing constructive feedback in a non-threatening manner.

The last finding highlights a prevalent concern among the participants, as 68% of respondents reported feeling afraid that their answer would be incorrect when asked to respond in English (Figure 10).

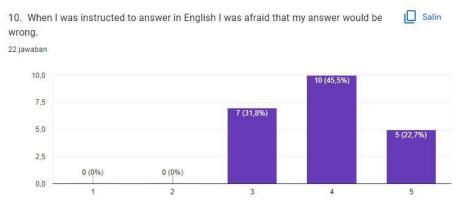


Figure 10 Anxiety in responding to question

This fear is a direct manifestation of performance anxiety, where the pressure to provide accurate responses in a foreign language can lead to hesitation and self-censorship. Instead of viewing questions as opportunities for practice and learning, learners may perceive them as high-stakes assessments, triggering apprehension and a reluctance to attempt an answer, even if they possess some knowledge. This not only limits their engagement in interactive learning but also curtails opportunities for crucial error-making and subsequent feedback, which are vital for language acquisition. Educators must therefore strive to cultivate low-stakes communicative environments where the focus is on participation and meaning-making, rather than solely on grammatical perfection.

#### **Discussion**

The preceding findings illuminate the complex landscape of English speaking anxiety within virtual scientific writing classrooms, particularly among English education scholars. This section delves into the implications of these results, exploring how factors such as the linguistic environment, the scholars' unique dual role as learners and future pedagogues, and the psychological impact of feedback and the learning atmosphere contribute to their apprehension.

## Environmental and Exposure Challenges

The findings of this study shed light on the pervasive nature of English speaking anxiety among English education scholars in virtual scientific writing classrooms, particularly highlighting the impact of their surrounding linguistic environment. As illustrated in Figure 1, a significant 81% of respondents reported that English is rarely spoken in their immediate surroundings. This low level of organic exposure outside formal academic settings presents a considerable challenge for these scholars, limiting their opportunities for spontaneous language practice and natural immersion. Such scarcity of real-world English use can hinder the development of fluent and confident oral communication skills, potentially exacerbating existing language anxiety when formal speaking opportunities arise.

### The Dual Role and Its Anxieties

This situation is particularly pertinent for the unique cohort under investigation, as they embody dual roles: not only are they advanced language learners striving to master complex scientific discourse in English, but they are also future pedagogues developing a theoretical understanding of language acquisition and anxiety. The limited external English exposure can create a disjunction between their theoretical knowledge of language pedagogy and their lived experience of anxiety in academic oral communication. This internal conflict may intensify feelings of apprehension, as their professional identity as educators is intertwined with their linguistic proficiency. The relationship between motivation and speaking performance, as noted by Alfiana and Wijirahayu (2024), underscores the importance of a supportive environment. Even highly motivated learners may struggle to achieve optimal speaking performance if practical application opportunities are scarce, further contributing to anxiety.

### The Psychological Landscape of Learning: Environment and Feedback

Furthermore, the study reveals the crucial role of the learning environment in fostering enthusiasm. As evidenced by 63% of respondents indicating that non-judgmental reactions from their surroundings significantly increased their enthusiasm for learning to speak English (Figure 2), the psychological safety of the learning space is paramount. This aligns with broader research emphasizing that a non-threatening atmosphere reduces the fear of making mistakes, which in turn boosts confidence and encourages greater participation. Such an environment is particularly vital for academic writing and speaking, where emotional experiences can significantly impact learning outcomes (Wijirahayu, 2024).

The positive impact of supportive environments resonates with studies on writing, where factors like anxiety can greatly affect motivation and achievement, especially in challenging circumstances like online learning during a pandemic (Wijirahayu & Kamilah, 2021). Similarly, the attitude toward language learning is significantly influenced by the learning process itself,

indicating that a positive and non-judgmental approach can transform a learner's overall engagement and proficiency (Hassan, Kazi, & Asmara Shafqat, 2020).

A key insight into learners' preferences for receiving feedback during oral communication is provided by the finding that a significant 68% of participants agreed with the statement: 'When I speak English, I want to be heard first before correction' (Figure 3). This underscores a strong desire among non-native English speakers to prioritize fluency and message conveyance over immediate grammatical accuracy. For these scholars, being listened to attentively validates their communicative effort and builds confidence, whereas immediate correction can be perceived as an interruption that disrupts their thought process and increases anxiety. This preference highlights the importance of creating a psychologically safe environment where the primary goal is effective communication, with constructive feedback provided in a timely yet non-intrusive manner that doesn't stifle the learners' willingness to speak (Melisa et al., 2025; Khoudri, 2024).

## Manifestations of Anxiety: From Fear to Physiology

This emphasis on supportive feedback is further reinforced by the finding that 59% of respondents indicated that overly intense grammar correction made them afraid to attempt speaking in English (Figure 4). This suggests that an excessive or abrupt focus on linguistic accuracy can inadvertently create a significant barrier to oral participation. Adding to these anxieties, a considerable 54% of the participants expressed a concern that their accent or fluency might be mocked (Figure 5). This fear of ridicule, even if not always actualized, acts as a powerful inhibitor of spontaneous communication and severely impacts a learner's willingness to engage in spoken English. These psychological apprehensions are often accompanied by physiological responses; 53% of respondents reported experiencing cold palms and a racing heart during introductions and presentations (Figure 6). These somatic symptoms are classic indicators of stress, highlighting the deep-seated nature of speaking anxiety and its potential to impede cognitive functions and performance during crucial academic presentations (Zhang & Yik, 2024; Topalov et al., 2023).

When learners perceive that every utterance will be meticulously scrutinized for grammatical errors, and simultaneously fear mockery, it shifts their attention from conveying meaning to avoiding mistakes, leading to heightened anxiety and a reluctance to take communicative risks. This aligns with the understanding that mental health aspects are increasingly relevant in digital learning environments (Fadillah et al., 2024) and that effective teacher strategies for managing anxiety are crucial (Hikmah & Kholis, 2025; Özçelik, 2025; Sholeh & Muchibuddin, 2025).

The impact of the learning environment on learners' comfort is further evident as 36% of respondents reported that their environment made them afraid to make mistakes during English speaking activities (Figure 7). This finding underscores that even if not overtly judgmental, the perceived atmosphere can still trigger apprehension, leading to self-censorship and a reluctance to engage (Sowaprux, 2021). This fear of making mistakes due to the environment is drastically amplified by the finding that a striking 81% of respondents reported that overly strict teachers made them afraid to attempt speaking English and to make mistakes (Figure 9). This highlights the profound influence of instructional style, where a punitive approach, particularly regarding error correction, can create a high-stakes environment that stifles risk-taking and hinders fluency development.

Compounding these issues is the finding that 68% of respondents reported feeling afraid that their answer would be incorrect when asked to respond in English (Figure 10). This fear of providing incorrect answers is a direct manifestation of performance anxiety, turning simple questions into high-stakes assessments that deter active participation. This further curtails opportunities for spontaneous interaction and limits the natural process of learning from mistakes. Interestingly, despite these pervasive fears of judgment, strictness, and error, 59% of respondents reported not having received ridicule regarding their English skills (Figure 8). This discrepancy

suggests that, for the majority, the apprehension about mockery might stem more from internal concerns or general anxiety about judgment rather than direct negative experiences. This underscores the vital importance of actively maintaining and reinforcing a non-judgmental atmosphere to not only prevent overt negativity but also to proactively mitigate learners' self-perceived vulnerability.

## Pedagogical Implications and Future Directions

The findings collectively highlight that bridging the gap between face-to-face and virtual classrooms requires careful consideration of these anxiety-inducing factors in scientific writing courses (Dwigustini et al., 2024). Therefore, pedagogical approaches should balance accuracy and fluency, perhaps by integrating innovative methods like flipped learning or virtual reality, which have shown promise in improving language competence and decreasing anxiety by providing immersive and less threatening practice opportunities (Mahmoud Ahmed Abdelghafar, 2024; Ebadi & Ebadijalal, 2022; Hoter et al., 2023; Pani & Ray, 2024; Choi, 2025). Furthermore, virtual reality technologies, including spherical video-based approaches, are increasingly recognized for their potential to enhance language skills and reduce writing anxiety by offering engaging and low-stress learning environments (Huang et al., 2020; Hsu, 2025).

Educators might also consider incorporating diverse classroom practices, such as project-based learning and the habitual use of engaging activities like listening to songs, to create a more dynamic and less intimidating learning environment (Wijirahayu & Hantamah, 2022; Wijirahayu & Sutiwan, 2023). Moreover, strategies that gamify questions and grammar learning, as explored by Hong et al. (2022), could be particularly effective in reducing anxiety associated with accuracy and encouraging greater epistemic curiosity and engagement in spoken English. Ultimately, the implications of these findings extend to developing educational practices that not only enhance academic oral communication skills but also proactively address and mitigate language anxiety for English education scholars, fostering a more confident and effective next generation of language educators and scientific communicators.

## **CONCLUSION**

This study has thoroughly illuminated the pervasive nature and specific manifestations of English speaking anxiety among English education scholars within virtual scientific writing classrooms. The findings underscore a critical interplay between limited real-world English exposure, the inherent anxieties of a dual role as advanced learners and future pedagogues, and the profound impact of the learning environment and feedback practices. The scarcity of opportunities for organic language practice outside formal settings significantly exacerbates apprehension, creating a discernible gap between theoretical pedagogical understanding and lived experience of language anxiety.

Crucially, this research highlights that a psychologically safe and non-judgmental virtual space is paramount for fostering confidence. The strong preference for being heard before correction and the fear induced by overly intense grammar feedback or the potential for mockery underscore the need for instructors to prioritize communicative fluency and provide constructive, empathetic feedback. The reported physiological symptoms and fear of mistakes or incorrect answers further emphasize the deep-seated nature of this anxiety.

The implications of these findings are substantial for pedagogical practice. To bridge the gap between face-to-face and virtual learning, educators must adopt nuanced approaches that balance accuracy with fluency. Integrating innovative methodologies such as flipped learning, virtual reality, gamification, and project-based activities can create more engaging, immersive, and less threatening practice opportunities. Ultimately, by understanding and proactively addressing the

unique anxieties of this vital cohort, we can cultivate more confident and effective communicators, empowering them not only to excel in scientific discourse but also to become more empathetic and skilled language educators themselves. This targeted intervention is essential for fostering a next generation of scholars who can confidently contribute to the global scientific community.

#### REFERENCES

- Alfiana, E. S., & Wijirahayu, S. (2024). The Relationship of Students' Learning Motivation and Their Speaking Performance. *Scripta: English Department Journal*, 11(1), 68-80.
- Cancino, M., & Cabello, G. (2024). Foreign Language Speaking Anxiety and Computer Self-Efficacy in an Online Emergency Remote Teaching Environment: Perceptions from EFL Learners. *MEXTESOL Journal*, 48(4), n4.
- Choi, W. (2025). A Systematic Review of the Impact of VR Technology on Higher Education Learners' English Speaking Anxiety: Following PRISMA Guidelines. *영어어문교육*, 31(1), 1-26.
- Dwigustini, R., Halim, N., & Susilawati, S. (2024). Bridging the gap between face-to-face and virtual class: What to be considered in the course of scientific writing? *Journal of Research in Instructional*, 4(1), 180-193.
- Ebadi, S., & Ebadijalal, M. (2022). The effect of Google Expeditions virtual reality on EFL learners' willingness to communicate and oral proficiency. *Computer Assisted Language Learning*, 35(8), 1975-2000.
- Fadillah, C. N., Wijirahayu, S., Beni, N. A., Zahro, D. A., Paramitha, R., Zalfa, L. N., & Adha, F. N. (2024). A Mental Health in the Digital Era. In *Forum for University Scholars in Interdisciplinary Opportunities and Networking* (Vol. 1, No. 1, pp. 754-758).
- Hassan, A., Kazi, A. S., & Asmara Shafqat, Z. A. (2020). The impact of process writing on the language and attitude of Pakistani English learners. *Asian EFL Journal*, 27(4.3), 260-277.
- Hikmah, P. C., & Kholis, A. (2025). Managing Students' Anxiety in English Language Learning: An Analysis of Teachers' Strategies. *Edunesia: Jurnal Ilmiah Pendidikan*, 6(2), 784-795.
- Hong, J. C., Hwang, M. Y., Liu, Y. H., & Tai, K. H. (2022). Effects of gamifying questions on English grammar learning mediated by epistemic curiosity and language anxiety. *Computer Assisted Language Learning*, 35(7), 1458-1482.
- Hoter, E., Azulay, H., & Yazbak, M. (2023). Enhancing academic speaking skills: An immersive virtual world approach. *Qeios*. <a href="https://doi.org/10.32388/H5NKUG">https://doi.org/10.32388/H5NKUG</a>
- Hsu, H. L. (2025). Examining the effect of spherical video-based virtual reality on learners' writing performance, reflective thinking skills and writing anxiety. *Interactive Learning Environments*, 1-17.
- Huang, H. L., Hwang, G. J., & Chang, C. Y. (2020). Learning to be a writer: A spherical video-based virtual reality approach to supporting descriptive article writing in high school Chinese courses. *British Journal of Educational Technology*, 51(4), 1386-1405.
- Irawan, R., Warni, S., & Wijirahayu, S. (2018). JER Journal of ELT Research.
- Khoudri, I. (2024). Teachers' Strategies to Alleviate Speaking Anxiety and Foster Willingness to Communicate among EFL High School Students. *International Journal of Contemporary Educational Research*, 11(2), 236-249.
- Mahmoud Ahmed Abdelghafar, S. (2024). The use of Flipped learning and WebQuests to improve language competence in English and decrease language learning anxiety in the COVID-19 pandemic. (Doctoral dissertation).
- Melisa, M., Darmawan, D., Wahyudin, W., & Marhum, M. (2025). Factors Contributing to Student Anxiety during Classroom Presentation: A Qualitative Study. *ELS Journal on Interdisciplinary Studies in Humanities*, 8(2), 389-397.

- Özçelik, A. E. (2025). Mitigating Speaking Anxiety in Language Education Through Practical Strategies. In *Challenges in Teacher Education: Pedagogy, Management, and Materials* (pp. 167-198). IGI Global Scientific Publishing.
- Özdemir, O., & Seçkin, H. (n.d.). Anxiety as a Foreign Language Learning Barrier: Perspectives of Lecturers and Freshmen on Speaking and Writing Skills in Higher Education Settings. Available at SSRN 5051729.
- Pani, P., & Ray, A. (2024, December). Immersive Tech Solutions to Overcome Speaking Anxiety. In 2024 2nd International Conference on Signal Processing, Communication, Power and Embedded System (SCOPES) (pp. 1-5). IEEE.
- Sholeh, A., & Muchibuddin, M. (2025). Virtual Learning Stress: Addressing Anxiety In EFL Adult Learners at Indonesian Private Universities. *Journal of Languages and Language Teaching*, 13(1), 216-228.
- Sowaprux, T. (2021). An investigation of English language speaking and writing anxieties and anxiety-reducing strategies in an online language classroom of Thai undergraduates. (Doctoral dissertation).
- Topalov, J., Knežević, L., & Halupka-Rešetar, S. (2023). How anxious are online ESP learners?: Exploring students' anxiety in video, audio and text-based communication in an online classroom. *ESP Today*, 11(2), 395-416.
- Watson, S. (2021). Learning designs incorporating animated pedagogical agents: Their potential for improving academic writing competence, writing self-efficacy, and reducing writing anxiety. (Doctoral dissertation, Murdoch University).
- Wijirahayu, S. (2024). Activating Learners' Emotional Experience in Academic Reading and Writing. *ACADEMIC*, 260.
- Wijirahayu, S., & Dorand, P. (2018). Affective strategies, attitudes, and a model of speaking performance development for engineering students. In *Journal of Physics: Conference Series* (Vol. 948, No. 1, p. 012024). IOP Publishing.
- Wijirahayu, S., & Hantamah, T. (2022). An Exploration Of Local Culture In English Classroom Practices Through Project Based Learning. In *International Conference On Research And Development (ICORAD)* (Vol. 1, No. 2, pp. 256-261).
- Wijirahayu, S., & Kamilah, S. (2021, July). Students' Writing Anxiety, Reading Motivation and Writing Achievement during Covid-19 Pandemic. In *Proceeding of International Conference in Education, Science and Technology* (pp. 76-84).
- Wijirahayu, S., & Sutiwan, A. S. (2023). A habitual action of listening to songs in a writing class. *JELITA: Journal of Education, Language Innovation, and Applied Linguistics*, 2(1), 12-21.
- Zhang, H., & Yik, L. H. (2024). Exploring the Causes, Performance, and Solutions of Academic Presentation Anxiety among Chinese International Students.