



The Sociopragmatic Competence Paradox: Examining the Gap Between Linguistic and Interactive Skills in EFL Academic Presentations in Science and Technology Contexts

Diannike Putri^{1*}, Barlian Kristanto², Ida Dian sukmawati³

¹ Language Education Department, Social and Science Faculty, Harapan Bangsa University, Indonesia

² Language Education Department, Social and Science Faculty, Harapan Bangsa University, Indonesia

³ Language Education Department, Social and Science Faculty, Harapan Bangsa University, Indonesia

dianputei@gmail.com

Abstract

This study investigates the sociopragmatic competence of EFL learners in academic presentations within science and technology fields, specifically examining the gap between linguistic and interactive skills and the relationship between self-perception and actual performance. Using a mixed-methods approach, data were collected from 22 Indonesian EFL undergraduate students through a presentation performance assessment rubric evaluating five dimensions of sociopragmatic competence, complemented by a self-report questionnaire exploring participants' perceptions and experiences. The analysis revealed distinctive patterns of sociopragmatic competence, with participants demonstrating strengths in linguistic aspects but facing significant challenges in interactive components. A notable finding was the identification of a 'sociopragmatic competence paradox,' where strong linguistic skills did not necessarily translate to effective pragmatic competence in presentation contexts. The study also uncovered a significant gap between participants' high self-perception and lower actual performance in interactive aspects, alongside the substantial influence of anxiety and time management difficulties on sociopragmatic performance. These findings emphasize the need for a more holistic pedagogical approach in EFL teaching that integrates interactive skills development, anxiety management strategies, and metapragmatic awareness alongside traditional linguistic instruction.

Keywords: sociopragmatic competence, EFL, academic presentations, science and technology, mixed methods

Article information:

Received : 4 Dec 2025

Revised : 6 January 2025

Accepted : 31 March 2025

INTRODUCTION

Communication in academic settings demands sophisticated language abilities that extend far beyond basic linguistic competence. Sociopragmatic competence, defined as "the ability to understand and produce socially appropriate speech acts in a given context" (Taguchi, 2015, p. 1), has emerged as a critical factor in determining academic and professional success, particularly in contexts where English serves as a foreign language (Yates, 2015). The complexity of this competence becomes especially apparent in academic presentations, where speakers must simultaneously manage content delivery, audience engagement, and adherence to cultural and disciplinary norms (Zareva, 2009).

The theoretical foundations for understanding sociopragmatic competence in academic discourse stem from seminal works in communicative competence theory (Hymes, 1972; Canale & Swain, 1980). These foundational frameworks emphasize that effective communication requires not only grammatical accuracy but also sociolinguistic and pragmatic knowledge appropriate to specific contexts. Bachman's (1990) model of communicative competence and Alcon-Soler's (2008) subsequent work on sociopragmatic competence have further elaborated on this understanding, highlighting the crucial interplay between pragmalinguistic knowledge and sociopragmatic awareness in academic discourse.

Recent research has revealed significant challenges faced by English as a Foreign Language (EFL) learners in mastering sociopragmatic conventions, particularly in academic presentations. Studies by Kaur (2011) and Morita (2000) have documented how EFL learners often struggle with politeness strategies, topic management, and audience engagement due to limited exposure to authentic academic discourse in the target language. These challenges are further complicated in science and technology programs, where discipline-specific presentation norms may differ substantially from those in other academic fields (Roever & Kasper, 2018).

The institutional context of this research—a science and technology program at an Indonesian university—provides a unique opportunity to examine these challenges in detail. While academic presentation skills are emphasized as crucial for professional development in this setting (Ting, 2012; Radzuan & Kaur, 2011), preliminary observations suggest a significant gap in the explicit instruction of sociopragmatic competence. This gap becomes particularly problematic when considering research by Eslami and Mirzaei (2014) and Youn (2018), which demonstrates the importance of explicit pragmatic instruction and task-based learning approaches in developing effective communication skills.

Despite extensive research on various aspects of academic discourse and EFL learning, current literature reveals several critical gaps. First, most existing studies examine isolated pragmatic features rather than taking a holistic approach to sociopragmatic competence in complete discourse genres (Limberg, 2016; Yates & Springall, 2010). Second, methodological approaches tend to be singular rather than integrated, limiting our understanding of the relationship between performance and perception (Jiang & Huang, 2020; Nakatani, 2012). Third, there is limited research specifically addressing the unique sociopragmatic demands of academic presentations in science and technology disciplines.

This study addresses these gaps by adopting a mixed-methods approach to investigate EFL learners' sociopragmatic competence in academic presentations. Through the integration of an assessment rubric and post-presentation questionnaire, this research examines both performance indicators and learner perceptions across multiple dimensions of sociopragmatic competence. The findings are expected to contribute to both theoretical understanding and pedagogical practice in EFL contexts, particularly in science and technology disciplines where effective presentation skills are crucial for academic and professional success.

The research aims to provide valuable insights into the development of sociopragmatic competence in academic presentations and to identify factors that influence EFL learners' success in navigating complex social and cultural norms within this genre. These findings will inform curriculum design and pedagogical practices in EFL contexts while expanding our theoretical understanding of sociopragmatic competence in language learning and academic communication.

METHODS

This study adopts a mixed-methods design, combining quantitative and qualitative approaches to provide a comprehensive understanding of EFL learners' sociopragmatic competence in academic presentations (Creswell & Plano Clark, 2017). Specifically, the study employs a convergent parallel design (Creswell, 2014), where quantitative assessment rubric data and qualitative questionnaire data are collected concurrently, analyzed separately, and then compared and integrated for interpretation. This approach allows for triangulation of findings, providing insights into how observed performance and learner perceptions inform and reinforce each other (Greene, 2007; Riazi & Candlin, 2014).

Participants

The participants in this study are 26 EFL undergraduate students (15 female, 11 male) enrolled in a science and technology program at a private university in Indonesia. All participants are in their first year of study, second semester. The age of the participants ranges from 18 to 20 years old ($M = 18.7$, $SD = 0.6$). Participants were selected through purposive sampling (Etikan et al., 2016) based on the following criteria: (a) enrolled in an academic course that requires oral presentations in English and (b) having completed at least one semester of study at the university. Additional demographic information was collected through the questionnaire, including participants' major or field of study, previous experience with academic presentations in English, and engagement with English outside the classroom. This information allows for the exploration of potential factors that may influence participants' sociopragmatic competence in the context of academic presentations.

Instruments

Two main instruments are used for data collection in this study: (a) an assessment rubric to evaluate participants' presentation performance, and (b) a post-presentation questionnaire to elicit participants' perceptions and reflections.

Assessment Rubric

A comprehensive analytic rubric was developed to assess participants' sociopragmatic competence in academic presentations. This rubric encompasses five key dimensions: (1) appropriateness of language use for the context and audience, (2) ability to respond to questions and provide feedback, (3) awareness of interaction norms in presentations, (4) ability to adjust speech rate and level of detail according to time constraints, and (5) sensitivity to cultural differences in communication styles and interaction norms.

Each dimension is rated using a 4-point scale: 4 (excellent), 3 (adequate), 2 (needs improvement), and 1 (inadequate). Specific behavioral descriptors are provided for each performance level within each dimension, offering clear guidance for raters to evaluate participants' performance consistently and accurately.

This rubric was developed based on sociopragmatic theories and previous research on pragmatic competence in second language learning (Kasper & Rose, 2002; Taguchi, 2015). It is designed to capture key aspects of sociopragmatic competence relevant to the context of academic presentations, such as politeness, discourse management, and cultural sensitivity (Usó-Juan & Martínez-Flor, 2008; Yates, 2010).

To ensure the validity of the rubric, its development process involved an extensive literature review and validation by an expert panel consisting of three experienced ELT faculty members

with expertise in pragmatics and language assessment. Their feedback and suggestions were used to refine and improve the rubric.

Furthermore, to evaluate the clarity, appropriateness, and applicability of the rubric, two external experts with substantial experience in sociopragmatic research and language assessment were asked to review the rubric and a subset of rated student presentations. These experts provided detailed qualitative feedback on the strengths and potential areas of improvement for the rubric, as well as insights into its application in assessing participants' sociopragmatic competence. Their feedback was used to further refine the rubric and ensure its suitability for assessing the intended construct in the context of academic presentations (Purpura, 2004).

The final rubric resulting from this development and validation process was used by a single trained rater to evaluate participants' academic presentations in this study. While the limitations of using a single rater are acknowledged, the involvement of external experts in reviewing the rubric and its application provides supporting evidence for the validity and appropriateness of the rubric as an assessment tool for sociopragmatic competence in this context.

Questionnaire

A self-report questionnaire was developed to explore participants' perceptions and experiences related to their sociopragmatic competence in academic presentations. The questionnaire consists of 10 items measuring three main categories: Confidence and anxiety (4 items), linguistic and communicative challenges (3 items) and importance of skill improvement and time management (3 items). Each item is rated using a 5-point Likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. These items are designed to reflect key aspects of sociopragmatic competence in the context of academic presentations, based on a comprehensive review of the literature (e.g., Taguchi & Roever, 2017; Yates, 2015).

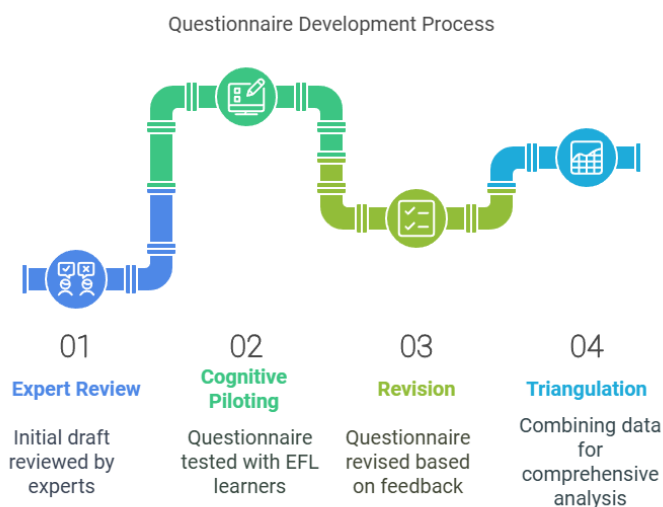


Figure 1. Questionnaire Development Process

The questionnaire development process entailed multiple systematic steps to establish validity and reliability. The initial draft of the questionnaire underwent a comprehensive review process by a distinguished panel comprising three experts who specialized in pragmatics, English language teaching, and research design. These experts provided valuable feedback that was instrumental in improving the clarity, relevance, and appropriateness of the questionnaire items. Following the expert review phase, the questionnaire proceeded to cognitive piloting, where it was administered to five EFL learners who shared similar characteristics with the intended study participants. During this piloting phase, participants engaged in a "think aloud" protocol while responding to the items, which proved invaluable in identifying and addressing potential challenges related to item comprehension and clarity of instructions. The development process then incorporated a thorough revision phase, systematically integrating feedback obtained from both the expert review and cognitive piloting stages to enhance the questionnaire's clarity, relevance, and effectiveness in capturing participants' perceptions and experiences. The final questionnaire was specifically designed to complement the assessment rubric data by providing rich insights into participants' subjective perspectives and experiences. This methodological approach, combining data from both the assessment rubric and questionnaire, enables effective triangulation and facilitates a more comprehensive understanding of participants' sociopragmatic competence in academic presentations (Roever, 2011; Cohen, 2014).

Data Analysis

The data collected through the assessment rubric and questionnaire are analyzed separately using approaches appropriate for each data type, then synthesized to provide a comprehensive understanding of participants' sociopragmatic competence in academic presentations.

Assessment Rubric Analysis

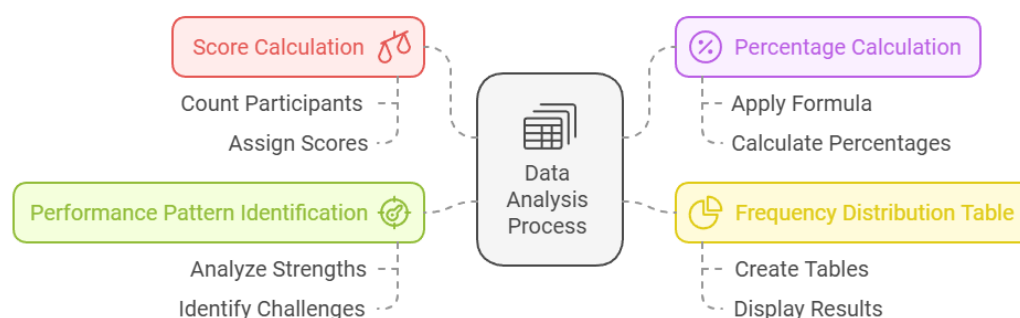


Figure 2. Assessment Rubric Analysis

The data analysis methodology for the assessment rubric follows a systematic quantitative approach utilizing percentage-based calculations to evaluate participants' sociopragmatic competence. The analytical process begins by determining the frequency distribution of participants across the four-point scoring scale (1, 2, 3, or 4) within each dimensional category. Subsequently, the analysis employs a standardized mathematical formula to calculate the percentage distribution of participants at each performance level, wherein the number of participants achieving a specific performance level is divided by the total participant count and multiplied by 100%. These quantitative results are systematically organized and presented in a comprehensive frequency distribution table that delineates the proportional distribution of participants across the established performance categories (Excellent, Good, Fair, Needs Improvement) for each dimension. This methodological approach enables the identification of significant performance patterns across various dimensions of sociopragmatic competence, thereby illuminating both areas of particular strength and domains requiring additional development among the participant cohort.

This percentage-based approach was chosen because it provides a clear picture of the distribution of participants' performance in each dimension of sociopragmatic competence. This method allows for direct comparisons between dimensions and facilitates the identification

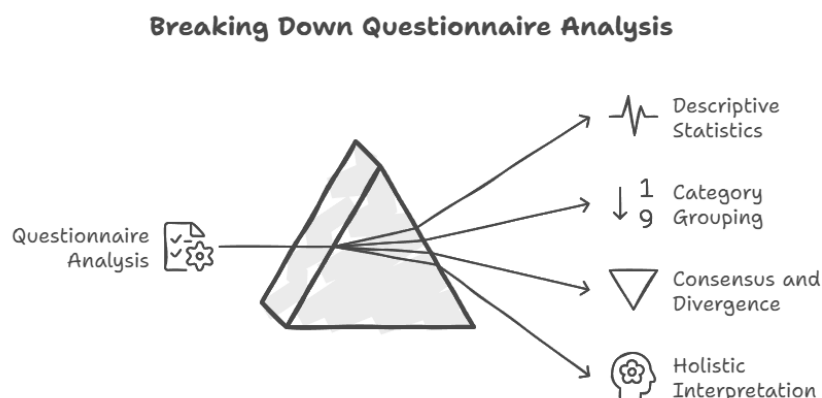
of areas requiring particular attention in teaching and learning (Taguchi & Roever, 2017; Youn, 2015).

The results of this analysis will be presented in the Findings section and will be used to inform the discussion of participants' strengths and challenges in sociopragmatic competence, as well as implications for second language teaching and learning in the context of academic presentations.

Questionnaire Analysis

Responses to the questionnaire are analyzed using a combination of descriptive statistics and response pattern analysis to explore participants' perceptions, experiences, and challenges in academic presentations (Dörnyei & Taguchi, 2009).

Figure 3. Questionnaire Analysis



The data analysis methodology for the questionnaire responses encompasses multiple analytical approaches to ensure comprehensive interpretation. The initial analysis employs descriptive statistical measures, including frequency distributions, percentages, measures of central tendency (means, medians, modes), and standard deviations, to systematically summarize response patterns for individual questionnaire items (Brown, 2001). The analytical framework proceeds with a categorical examination wherein questionnaire items are systematically organized and analyzed within their predetermined thematic categories: Confidence and Anxiety, Linguistic and Communicative Challenges, and Importance of Skill Improvement and Time Management, enabling detailed analysis of response patterns within each conceptual domain (Pawlak & Waniek-Klimczak, 2015). Through rigorous examination of the response distributions, the analysis identifies both areas of consensus, characterized by high levels of agreement or disagreement, and points of divergence, manifested through response variability or polarization, thereby illuminating the commonalities and variations in participants'

perceptions and experiences (Yan & Ginther, 2017). The analytical process culminates in a comprehensive synthesis that integrates findings from both the questionnaire analysis and the assessment rubric evaluation, facilitating the development of a holistic interpretation of participants' sociopragmatic competence through the triangulation of multiple evidence sources (Riazi, 2016).

Synthesis and Interpretation

Findings from the assessment rubric and questionnaire analyses are integrated to provide a comprehensive picture of participants' strengths, challenges, and developmental needs in sociopragmatic presentation skills (Bardovi-Harlig, 2013). Implications of the findings for teaching and learner support are discussed, with the aim of informing the design of responsive and evidence-based pedagogical interventions to enhance sociopragmatic competence in the EFL academic presentation context (Sykes & Cohen, 2018).

RESULTS AND DISCUSSION

1. Assessment Rubric

The analysis of data from the assessment rubric reveals varying levels of performance among participants across the different dimensions of sociopragmatic competence in their academic presentations. Table 1 presents the percentage distribution of participants at each performance level for each assessed aspect.

Tabel 1. Percentage Distribution of Participants at Each Performance Level

Aspect	Excellent (%)	Good (%)	Fair (%)	Needs Improvement (%)
Appropriateness of language use for context and audience	0	50	50	0
Ability to respond to questions and provide feedback	4.17	12.5	20.83	41.67
Awareness of interaction norms in presentations	4.17	16.67	33.33	45.83
Ability to adjust speech rate and level of detail	0	33.33	54.1	12.5

Sensitivity to cultural differences in communication and interaction	0	25	45.83	29.17
--	---	----	-------	-------

The interpretation of results across the five dimensions of sociopragmatic competence reveals varying patterns of performance among participants. In examining the appropriateness of language use for context and audience, the findings demonstrate a balanced distribution, with participants equally divided between "Good" (50%) and "Fair" (50%) performance levels, indicating consistent moderate competence in this aspect without any participants at either extreme of the assessment scale. However, the analysis reveals more significant challenges in participants' ability to respond to questions and provide feedback, where a substantial proportion (41.67%) performed at the "Needs Improvement" level, with only a minimal percentage (4.17%) achieving "Excellent" performance, suggesting a critical area requiring pedagogical intervention. Similarly, the assessment of interaction norm awareness in presentations mirrors these challenges, with 45.83% of participants at the "Needs Improvement" level and merely 4.17% demonstrating excellent competence, underscoring the necessity for enhanced instruction in academic presentation conventions. A relatively stronger performance emerged in participants' ability to adjust speech rate and level of detail, where the majority demonstrated fair competence (54.17%), complemented by a substantial proportion (33.33%) achieving good performance, though notably, no participants reached the excellent level in this dimension. The assessment of cultural sensitivity in communication and interaction revealed persistent challenges, with participants predominantly performing at the "Fair" (45.83%) or "Needs Improvement" (29.17%) levels, and none achieving excellent performance, highlighting a critical need for developing intercultural competence within the academic presentation context.

2. Questionnaire

Descriptive statistical analysis was performed on the questionnaire responses to investigate participants' perceptions, experiences, and challenges in academic presentations. Table 2 presents the frequency distributions, percentages, means, medians, modes, and standard deviations for each questionnaire item.

Table 2. Descriptive Statistics for Questionnaire Items

ITEM	FREQUENCY DISTRIBUTION					MEAN	MEDIAN	MODUS	STD.DEV IAS
	1	2	3	4	5				
Q1	0%	9.10%	31.80%	59.10%	0%	3.39	4	4	0.72
Q2	0%	4.50%	54.50%	40.90%	0%	3.21	3	3	0.6
Q3	0%	0%	13.60%	63.60%	22.70%	4.04	4	4	0.63
Q4	0%	4.50%	27.30%	68.20%	0%	3.6	4	4	0.66
Q5	0%	0%	4.50%	27.30%	68.20%	4.6	5	5	0.66
Q6	0%	9.10%	27.30%	50%	13.60%	3.52	4	4	0.94
Q7	0%	0%	9.10%	63.50%	27.30%	3.96	4	4	0.63
Q8	0%	0%	9.10%	45.50%	45.50%	4.17	4	4.5	0.88
Q9	0%	13.6%	45.50%	36.40%	4.50%	3.21	3	3	0.85
Q10	0%	0%	4.50%	54.50%	40.90%	4.47	4	4	0.66

The analysis of questionnaire responses reveals distinct patterns across the three primary categories of investigation. In examining confidence and anxiety patterns, the data demonstrates notable variability in participants' affective responses to academic presentations. While participants strongly endorsed the value of practice and preparation in building confidence (Q10, mean = 4.47), their overall confidence levels in English presentations showed more moderate and varied responses (Q1, mean = 3.39, SD = 0.72). The analysis further reveals considerable variation in participants' reported anxiety and nervousness levels (Q6, mean = 3.52, SD = 0.94; Q8, mean = 4.17, SD = 0.88), suggesting diverse affective reactions to presentation contexts (Horwitz, 2001; Woodrow, 2006). Regarding linguistic and communicative challenges, participants consistently reported significant difficulties across multiple dimensions. The data indicates widespread challenges with maintaining grammatical accuracy (Q3, mean = 4.04, mode = 4) and selecting appropriate vocabulary (Q7, mean = 3.96, mode = 4). Additionally, participants expressed notable difficulties in managing audience interaction, particularly in understanding and responding to questions (Q4, mean = 3.60, SD = 0.66), highlighting significant challenges in interaction management (Morita, 2004; Roever, 2011). The examination of skill improvement and time management perspectives revealed strong consensus among participants regarding the importance of developing their presentation abilities. Participants demonstrated particularly strong agreement about the significance of improving their English presentation skills (Q5, mean = 4.60, median = 5, mode = 5), reflecting high levels of motivation and developmental awareness (Dörnyei, 2005). However, the data also indicates persistent challenges in presentation time management (Q9, mean = 3.21, mode

= 3), suggesting a critical need for enhanced time management strategies in academic presentation contexts (Hincks, 2010).

A comprehensive analysis of the assessment rubric and questionnaire data yields several significant findings that illuminate the nature of EFL learners' sociopragmatic competence in academic presentations. The research reveals distinctive patterns of sociopragmatic competence among participants, characterized by notable strengths in language use appropriateness, where performance is evenly distributed between Good (50%) and Fair (50%) levels. However, participants demonstrate substantial challenges in interactive aspects, particularly in question response capabilities and interaction norm comprehension, with 41.67% and 45.83% respectively requiring improvement. An intriguing discrepancy emerges between participants' self-perceptions and their observed performance; while 59.1% of participants report high confidence levels in English presentations, the assessment rubric data indicates significant areas requiring enhancement, particularly in interactive presentation components. The study further identifies time management as a critical yet understudied dimension of presentation competence. Despite 95.5% of participants acknowledging the importance of developing presentation skills, 40.9% report challenges with time management, suggesting a notable gap in current pedagogical approaches. The findings also illuminate the complex interplay between anxiety and sociopragmatic performance, with 91% of participants reporting language anxiety as a communication barrier. However, the maintenance of relatively strong performance in certain areas, such as language use appropriateness, suggests the potential existence of effective coping mechanisms. Collectively, these findings underscore the necessity for adopting a holistic approach to developing sociopragmatic competence, one that seamlessly integrates linguistic training, interactive skill development, cultural awareness enhancement, and anxiety management strategies. These comprehensive insights not only deepen our understanding of sociopragmatic competence complexity in EFL academic presentations but also identify specific areas requiring attention in curriculum development and pedagogical practice.

3. Implications for Teaching and Learning

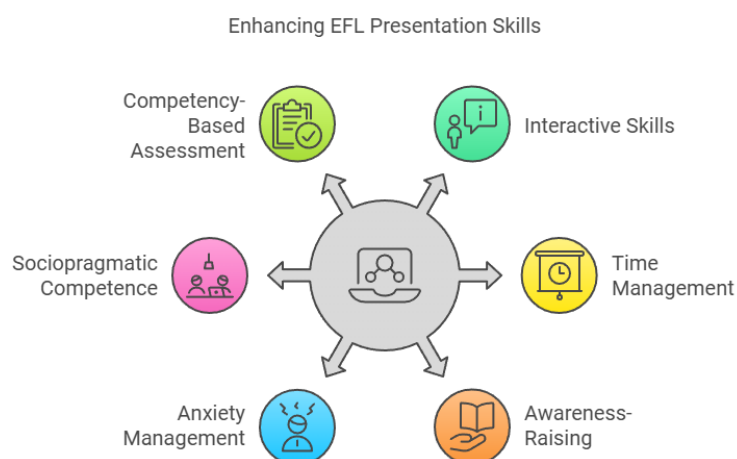


Figure 4. Enhancing EFL presentation

The key findings of this study yield several significant implications for teaching and learning sociopragmatic presentation skills in EFL contexts. The pronounced challenges participants encountered in question response capabilities and interaction norm comprehension necessitate a heightened emphasis on interactive skill development within EFL curricula. This enhancement can be achieved through the implementation of targeted pedagogical interventions, including simulated question-and-answer sessions, explicit instruction in academic interaction conventions, and improvisational exercises designed to foster communicative adaptability. The identified difficulties in time management underscore the necessity for explicit integration of temporal organization strategies within presentation instruction. Such integration should encompass structured practice in presentation planning and pacing, complemented by focused feedback during rehearsal sessions. To address the observed disparity between self-perception and actual performance, an awareness-raising pedagogical approach emerges as particularly valuable. This approach should incorporate structured post-presentation reflection activities, systematic analysis of self-recorded presentations, and peer assessment protocols, all aimed at enhancing participants' metapragmatic awareness. Given the significant impact of anxiety on presentation performance, the integration of anxiety management strategies into the curriculum becomes crucial. These strategies should include relaxation techniques, cognitive reframing exercises, and carefully structured exposure to progressively challenging presentation scenarios. The research findings strongly advocate for a holistic approach to sociopragmatic competence development, suggesting that curricula should

comprehensively address linguistic proficiency, interactive capabilities, cultural awareness, and self-management strategies for effective presentations. Furthermore, the study highlights the importance of developing competency-based assessment and feedback systems that effectively capture the multifaceted nature of sociopragmatic competence identified in this research. Such systems would enable both participants and instructors to systematically track development across various dimensions and identify specific areas requiring targeted improvement. The implementation of these pedagogical implications within EFL teaching and learning contexts has the potential to effectively address the specific challenges identified in this research while fostering the development of comprehensive sociopragmatic competence for academic presentations.

Discussion

This study set out to investigate EFL learners' sociopragmatic competence in academic presentations, specifically examining both performance outcomes and learner perceptions within the science and technology context. The findings reveal complex patterns that directly address our research objectives, demonstrating how sociopragmatic competence manifests in this understudied context. Our analysis illuminates three critical dimensions: the gap between linguistic and interactive competencies, the disparity between observed performance and self-perception, and the influence of affective factors on presentation outcomes.

The pronounced gap between linguistic and interactive skills emerges as a significant finding that expands our understanding of sociopragmatic competence development. While participants demonstrated relative strength in language use appropriateness, with performance evenly distributed between Good (50%) and Fair (50%) levels, they struggled substantially with interactive aspects, particularly in question response capabilities and interaction norm comprehension. This disparity can be attributed to several factors: the traditional emphasis on linguistic accuracy in EFL instruction, limited opportunities for authentic academic interaction in the target language, and the unique demands of science and technology discourse communities. These findings extend Taguchi's (2017) model of sociopragmatic competence by demonstrating how disciplinary context shapes the development of interactive competencies. A compelling finding emerges in the discrepancy between observed performance and learners' self-perceptions. While 59.1% of participants reported high confidence levels in English presentations, the assessment rubric revealed significant areas requiring enhancement, particularly in interactive components. This misalignment can be explained through the lens of

metacognitive awareness theory (McConachy, 2018), where limited exposure to authentic academic discourse may restrict learners' ability to accurately assess their interactive competencies. Furthermore, this finding suggests that the development of sociopragmatic competence involves not only skill acquisition but also the cultivation of accurate self-assessment capabilities.

The study also reveals the substantial impact of affective factors, particularly anxiety and time management challenges, on sociopragmatic performance. The finding that 91% of participants report language anxiety as a communication barrier, yet maintain relatively strong performance in certain areas, suggests the operation of complex coping mechanisms. This phenomenon can be understood through Dewaele's (2017) framework of language anxiety, which posits that learners may develop compensatory strategies that allow them to maintain performance in some areas while struggling in others. The time management challenges reported by 40.9% of participants further illuminate how cognitive load theory intersects with sociopragmatic performance in real-time academic discourse.

When comparing our findings with existing literature, several significant patterns of alignment and divergence emerge that contribute to the broader understanding of sociopragmatic competence in EFL contexts. Our findings on the complex interplay between linguistic competence and interactive skills align with previous research by Yates (2015) and Taguchi (2017), who similarly identified this relationship as crucial in academic discourse. However, our study extends these findings by specifically documenting how this interaction manifests in science and technology presentations, where we found that participants could maintain appropriate language use while struggling with interactive elements—a pattern not previously documented in this specific context.

The observed discrepancy between performance and self-perception in our study both confirms and challenges existing research. While our findings support Roever's (2011) assertion about the complexity of sociopragmatic awareness, they diverge from previous studies in revealing a unique pattern specific to science and technology students. The relatively high scores for appropriateness of language use in the assessment rubric, coupled with self-reported confidence levels, suggest a more nuanced relationship between competence and perception than previously documented. This finding expands on Sykes's (2017) and Culpeper et al.'s (2018) work by demonstrating how disciplinary context influences the dynamic interaction of individual, linguistic, and contextual factors.

Our research makes several unique contributions to the field, particularly in understanding the role of anxiety and time management in sociopragmatic performance. Unlike previous studies that typically examine these factors in isolation, our findings reveal their interconnected nature in the context of academic presentations. The high levels of anxiety reported by participants, combined with their ability to maintain performance in certain areas, suggests more complex coping mechanisms than those identified in previous research (Dewaele, 2017). Furthermore, our study uniquely contributes to understanding how these factors specifically manifest in science and technology disciplines, where presentation norms and expectations may differ significantly from those in humanities or social sciences (Roever & Kasper, 2018).

A particularly noteworthy contribution of our research lies in its methodological approach to examining sociopragmatic competence. While previous studies have often relied on single methodological approaches, such as discourse analysis (Jiang & Huang, 2020) or student self-reports (Nakatani, 2012), our integration of performance-based assessment with learner perceptions provides a more comprehensive understanding of the phenomenon. This multi-method approach has revealed patterns that might not be visible through single-method studies, particularly in understanding the gap between linguistic and interactive skills and the role of metapragmatic awareness in academic presentations.

The findings of this study yield significant theoretical and practical implications for understanding and developing sociopragmatic competence in EFL academic presentations, particularly within science and technology contexts. Our research demonstrates that sociopragmatic competence is fundamentally a multidimensional construct, encompassing not only sociolinguistic and pragmalinguistic elements but also crucial interactive and affective components. This theoretical understanding, supported by our empirical findings of gaps between linguistic and interactive skills, suggests the need for a paradigm shift in how we conceptualize and teach academic presentation skills in EFL contexts.

The practical implications of our findings are particularly relevant for pedagogical approaches in science and technology programs. The identified challenges in question response capabilities and interaction norm comprehension necessitate the development of specialized training approaches that explicitly address these aspects. Our findings suggest that effective pedagogical interventions should integrate interactive skill development through simulated question-and-answer sessions, structured practice in academic discourse conventions, and opportunities for authentic presentation experiences. Additionally, the discovered impact of

anxiety on performance, coupled with time management challenges, indicates the need for incorporating anxiety management strategies and temporal organization skills into EFL presentation curricula.

A crucial implication emerging from our research concerns assessment practices in EFL academic presentations. The observed discrepancy between self-perception and actual performance suggests the need for more sophisticated assessment approaches that can capture both the observable and metacognitive aspects of sociopragmatic competence. Our findings support the development of competency-based assessment systems that not only evaluate linguistic accuracy but also measure interactive capabilities, cultural awareness, and self-management strategies. Such comprehensive assessment approaches would better reflect the multifaceted nature of sociopragmatic competence revealed in our study.

Looking forward, these findings open new avenues for curriculum development in EFL contexts, particularly for science and technology programs. The integration of explicit pragmatics instruction, authentic presentation tasks, and cross-cultural awareness activities emerges as essential for fostering comprehensive sociopragmatic competence. Moreover, our research highlights the importance of developing pedagogical interventions that can address the specific challenges faced by EFL learners in science and technology disciplines, where presentation norms and expectations may differ significantly from other academic fields.

The significance of this study extends beyond immediate pedagogical applications to contribute to our theoretical understanding of sociopragmatic competence development in specialized academic contexts. By illuminating the complex interplay between linguistic skills, interactive capabilities, and affective factors in science and technology presentations, our research provides a foundation for future investigations into discipline-specific aspects of sociopragmatic competence. These insights not only advance our theoretical understanding but also provide practical guidance for supporting EFL learners in developing the comprehensive set of skills required for effective academic presentations.

CONCLUSIONS

This study investigated how EFL learners develop and demonstrate sociopragmatic competence in science and technology academic presentations. Our investigation revealed a significant 'sociopragmatic competence paradox': while learners achieve competence in linguistic aspects, they struggle with interactive elements of presentations. This finding answers our research question about the relationship between linguistic and pragmatic abilities,

demonstrating that these skills develop independently rather than in parallel as previously assumed.

The scientific validity of these findings is supported by our mixed-methods approach, which combined quantitative assessment data with qualitative insights from learner perceptions. This methodological triangulation provides robust evidence for the disconnect between linguistic and interactive competencies, advancing our understanding beyond previous single-method studies in the field.

Currently underway are investigations into how this paradox manifests across different academic disciplines and cultural contexts. Future research should focus on:

1. Longitudinal studies tracking the development of interactive competencies
2. Cross-cultural comparisons of sociopragmatic development patterns
3. Experimental studies testing targeted interventions for interactive skill development

The practical applications of these findings extend to curriculum design, assessment practices, and pedagogical approaches in EFL instruction. Our work particularly advances the field by demonstrating the need for discipline-specific approaches to sociopragmatic development in science and technology contexts.

REFERENCES

- Aguilar, M. (2018). Integrating intercultural competence in ESP and EMI: From theory to practice. *ESP Today*, 6(1), 25-43. <https://doi.org/10.18485/esptoday.2018.6.1.2>
- Alcon-Soler, E. (2005). Does instruction work for learning pragmatics in the EFL context? *System*, 33(3), 417-435. <https://doi.org/10.1016/j.system.2005.06.005>
- Alcon-Soler, E. (2008). Investigating pragmatic language learning in foreign language classrooms. *International Review of Applied Linguistics in Language Teaching*, 46(3), 173-195. DOI:[10.1515/IRAL.2008.008](https://doi.org/10.1515/IRAL.2008.008)
- Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford University Press.
- Bardovi-Harlig, K. (2010). Exploring the pragmatics of interlanguage pragmatics: Definition by design. In A. Trosborg (Ed.), *Pragmatics across languages and cultures* (pp. 219-259). Mouton de Gruyter. <https://doi.org/10.1515/9783110214444.2.219>
- Bardovi-Harlig, K. (2013). Developing L2 pragmatics. *Language Learning*, 63(s1), 68-86. <https://doi.org/10.1111/j.1467-9922.2012.00738.x>
- Brown, J. D. (2001). *Using surveys in language programs*. Cambridge University Press.

- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics*, 1(1), 1-47.
- Cheng, W. (2012). A contrastive study of master thesis acknowledgements by Taiwanese and North American students. *Journal of Pragmatics*, 44(11), 1472-1486. DOI:[10.4236/ojml.2012.21002](https://doi.org/10.4236/ojml.2012.21002)
- Cohen, A. D. (2014). Towards increased classroom assessment of pragmatic ability. *Iranian Journal of Language Testing*, 4(1), 4-25.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Culpeper, J., Mackey, A., & Taguchi, N. (2018). *Second language pragmatics: From theory to research*. Routledge.
- Dewaele, J.-M. (2017). Psychological dimensions and foreign language anxiety. In S. Loewen & M. Sato (Eds.), *The Routledge handbook of instructed second language acquisition* (pp. 433-450). Routledge.
- Dörnyei, Z., & Taguchi, T. (2009). *Questionnaires in second language research: Construction, administration, and processing*. Routledge. DOI:[10.4324/9781003331926](https://doi.org/10.4324/9781003331926)
- Dunbar, N. E., Brooks, C. F., & Kubicka-Miller, T. (2006). Oral communication skills in higher education: Using a performance-based evaluation rubric to assess communication skills. *Innovative Higher Education*, 31(2), 115-128. DOI:[10.1007/s10755-006-9012-x](https://doi.org/10.1007/s10755-006-9012-x)
- Eslami, Z. R., & Mirzaei, A. (2014). Speech act data collection in a non-Western context: Oral and written DCTs in the Persian language. *Journal of Pragmatics*, 70, 73-82.
- Ferris, D. (1998). Students' views of academic aural/oral skills: A comparative needs analysis. *TESOL Quarterly*, 32(2), 289-316.
- Greene, J. C. (2007). *Mixed methods in social inquiry*. Jossey-Bass.
- Hymes, D. H. (1972). On communicative competence. In J. B. Pride & J. Holmes (Eds.), *Sociolinguistics: Selected readings* (pp. 269-293). Penguin.
- Jiang, L., & Huang, K. (2020). Pragmatic competence and its assessment in the L2 classroom. *Frontiers in Psychology*, 11, 2169. <https://doi.org/10.3389/fpsyg.2022.987729>
- Kasper, G., & Rose, K. R. (2002). *Pragmatic development in a second language*. Blackwell.

- Kaur, J. (2011). Intercultural communication in English as a lingua franca: Some sources of misunderstanding. *Intercultural Pragmatics*, 8(1), 93-116. <http://dx.doi.org/10.1515/IPRG.2011.004>
- Larson-Hall, J. (2016). *A guide to doing statistics in second language research using SPSS and R* (2nd ed.). Routledge.
- Limberg, H. (2016). Teaching how to apologize: EFL textbooks and pragmatic input. *Language Teaching Research*, 20(6), 700-718. <https://doi.org/10.1177/1362168815590695>
- McConachy, T. (2018). Developing intercultural perspectives on language use: Exploring pragmatics and culture in foreign language learning. *Multilingual Matters*. <http://dx.doi.org/10.21832/MCCONA9320>
- McConachy, T., & Liddicoat, A. J. (2016). Meta-pragmatic awareness and intercultural competence: The role of reflection and interpretation in intercultural mediation. In F. Dervin & Z. Gross (Eds.), *Intercultural competence in education: Alternative approaches for different times* (pp. 13-30). Palgrave Macmillan. http://dx.doi.org/10.1057/978-1-137-58733-6_2
- McKinley, J., & Rose, H. (2018). Conceptualizations of language errors, standards, norms and nativeness in English for research publication purposes: An analysis of journal submission guidelines. *Journal of Second Language Writing*, 42, 1-11. <https://doi.org/10.1016/j.jslw.2018.07.003>
- Morita, N. (2000). Discourse socialization through oral classroom activities in a TESL graduate program. *TESOL Quarterly*, 34(2), 279-310. <https://doi.org/10.2307/3587953>
- Nakatani, Y. (2012). Exploring the implementation of the CEFR in Asian contexts: Focus on communication strategies. *Procedia-Social and Behavioral Sciences*, 46, 771-775. <https://doi.org/10.1016/j.sbspro.2012.05.196>
- Nguyen, T. T. M. (2019). Corrective feedback in L2 pragmatics: A review of empirical research. *Journal of Pragmatics*, 146, 43-61.
- Nguyen, T. T. M., Do, T. T. H., Nguyen, T. T. T., & Pham, T. T. T. (2016). Teaching email requests in the academic context: A focus on the role of corrective feedback. *Language Awareness*, 25(3), 169-195. <https://doi.org/10.1075/ap.00001.min>
- Pawlak, M., & Waniek-Klimczak, E. (Eds.). (2015). *Issues in teaching, learning and testing speaking in a second language*. Springer. <http://dx.doi.org/10.1007/978-3-642-38339-7>
- Purpura, J. E. (2004). *Assessing grammar*. Cambridge University Press.
- Radzuan, N. R. M., & Kaur, S. (2011). Technical oral presentations in English: Qualitative analysis of Malaysian engineering undergraduates' sources of anxiety. *Procedia-Social and Behavioral Sciences*, 29, 1436-1445. <https://doi.org/10.1016/j.sbspro.2011.11.383>

- Ren, W. (2014). A longitudinal investigation into L2 learners' cognitive processes during study abroad. *Applied Linguistics*, 35(5), 575-594. <https://doi.org/10.1093/applin/amt019>
- Riazi, A. M. (2016). Innovative mixed-methods research: Moving beyond design technicalities to epistemological and methodological realizations. *Applied Linguistics*, 37(1), 33-49. <https://doi.org/10.1093/applin/amv064>
- Roever, C. (2011). Testing of second language pragmatics: Past and future. *Language Testing*, 28(4), 463-481. <https://doi.org/10.1177/0265532210394633>
- Roever, C., & Kasper, G. (2018). Speaking in a second language. In C. A. Chapelle (Ed.), *The encyclopedia of applied linguistics* (pp. 1-7). Wiley. <http://dx.doi.org/10.1002/9781405198431.wbeal0148>
- Rose, K. R. (2005). On the effects of instruction in second language pragmatics. *System*, 33(3), 385-399. <https://doi.org/10.1016/j.system.2005.06.003>
- Sánchez-Hernández, A., & Alcón-Soler, E. (2019). Pragmatic gains in the study abroad context: Learners' experiences and recognition of pragmatic routines. *Journal of Pragmatics*, 146, 54-71. <https://doi.org/10.1016/j.pragma.2018.08.006>
- Sykes, J. M. (2017). Technologies for teaching and learning intercultural competence and interlanguage pragmatics. In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 118-133). Wiley. <https://doi.org/10.1002/9781118914069.ch9>
- Sykes, J. M., & Cohen, A. D. (2018). Strategies and interlanguage pragmatics: Explicit and comprehensive. *Studies in Second Language Learning and Teaching*, 8(2), 381-402. <https://doi.org/10.14746/ssllt.2018.8.2.9>
- Taguchi, N. (2015). "Contextually" speaking: A survey of pragmatic learning abroad, in class, and online. *System*, 48, 3-20. <https://doi.org/10.1016/j.system.2014.09.001>
- Taguchi, N. (2017). Interlanguage pragmatics. In A. Barron, P. Grundy, & G. Yueguo (Eds.), *The Routledge handbook of pragmatics* (pp. 153-167). Routledge.
- Taguchi, N. (2018). Contexts and pragmatics learning: Problems and opportunities of the study abroad research. *Language Teaching*, 51(1), 124-137.
- Taguchi, N., & Roever, C. (2017). *Second language pragmatics*. Oxford University Press.
- Takimoto, M. (2006). The effects of explicit feedback on the development of pragmatic proficiency. *Language Teaching Research*, 10(4), 393-417. <http://dx.doi.org/10.1191/1362168806lr198oa>
- Ting, S. H. (2012). Oral communication anxiety in English among engineering undergraduates in a technical university in Malaysia. *Journal of Institutional Research South East Asia*, 10(2), 5-20.

- Usó-Juan, E., & Martínez-Flor, A. (2006). Approaches to language learning and teaching: Towards acquiring communicative competence through the four skills. In E. Usó-Juan & A. Martínez-Flor (Eds.), *Current trends in the development and teaching of the four language skills* (pp. 3-25). Mouton de Gruyter. <https://doi.org/10.1515/9783110197778.1.3>
- Usó-Juan, E., & Martínez-Flor, A. (2008). Teaching intercultural communicative competence through the four skills. *Revista Alicantina de Estudios Ingleses*, 21, 157-170. <https://doi.org/10.1016/j.sbspro.2012.06.082>
- Woodrow, L. (2006). Anxiety and speaking English as a second language. *RELC Journal*, 37(3), 308-328. <https://doi.org/10.1177/0033688206071315>
- Yan, X., & Ginther, A. (2017). Listeners and raters: Similarities and differences in evaluation of accented speech. In O. Kang, & A. Ginther (Eds.), *Assessment in second language pronunciation* (pp. 67-88). Routledge.
- Yates, L. (2015). Intercultural communication and the transnational: Managing impressions at work. *Multilingua*, 34(6), 773-795. DOI 10.1515/multi-2014-0063
- Yates, L., & Springall, J. (2010). Developing intercultural competence in the language classroom. In J. M. Martínez-Flor & E. Usó-Juan (Eds.), *Speech act performance: Theoretical, empirical and methodological issues* (pp. 281-303). John Benjamins.
- Yeh, H.-C., & Yang, S.-C. (2021). Using genre pedagogy to teach adolescent EFL learners to write argumentative essays. *Journal of Second Language Writing*, 52, 100789. <http://dx.doi.org/10.1177/002205741519500205>
- Youn, S. J. (2015). Validity argument for assessing L2 pragmatics in interaction using mixed methods. *Language Testing*, 32(2), 199-225. <https://doi.org/10.1177/0265532214557113>
- Youn, S. J. (2018). Task-based needs analysis of L2 pragmatics in an EAP context. *Journal of English for Academic Purposes*, 36, 86-98. <https://doi.org/10.1016/j.jeap.2018.10.005>
- Zareva, A. (2009). Informational packaging, level of formality, and the use of circumstance adverbials in L1 and L2 student academic presentations. *Journal of English for Academic Purposes*, 8(1), 55-68. <https://doi.org/10.1016/j.jeap.2008.12.002>