



Voices of Vulnerability: Exploring Self-Presentation in Foreign Language Listening Anxiety

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ABSTRACT

This study applies a self-presentational framework to explore foreign language listening anxiety among 100 cadets at Politeknik Penerbangan Surabaya learning Aviation English, addressing how comprehension uncertainty fosters vulnerability in high-stakes aural interactions. The explanatory sequential mixed-methods design combined the Shortened Scale of Foreign Language Listening Anxiety (SSFLLA), Revised Interaction Anxiousness Scale (RIAS), Revised Penn State Worry Questionnaire (RPSWQ), and an aviation-themed dictation test with verbal reports from 17 cadets. Quantitative results showed moderate listening anxiety (SSFLLA $M = 3.503$, $SD = 0.804$). Overall listening anxiety was inversely associated with dictation proficiency ($r = -.451$, $p < .001$). Self-focused apprehension ($M = 3.704$, $SD = 0.897$) was positively associated with social anxiousness ($r = .253$, $p = .011$), whereas task-focused apprehension ($M = 3.302$, $SD = 0.703$) was inversely associated with dictation proficiency ($r = -.402$, $p < .001$). Program differences were observed for self-focused anxiety, $F(2, 97) = 4.56$, $p = .013$, $\eta^2 = .09$. In the adjusted self-focused model, general worry showed the largest partial effect, $F(1, 93) = 58.54$, $p < .001$, $\eta^2 = .39$. Qualitative findings highlighted social-evaluative exposure, cognitive overwhelm, and pathways to resilience. The findings support targeted proficiency-building, clarification practice, and psychologically supportive scenario-based training in Aviation English.

1. INTRODUCTION

Foreign language listening anxiety is especially consequential in Aviation English because listening is a transient, real-time process: learners must decode rapidly delivered speech, accents, phraseology, and technical information while simultaneously preparing an appropriate response. In radiotelephony and scenario-based training, comprehension accuracy directly supports communication continuity and operational safety. ICAO language proficiency requirements consequently place a premium on intelligible and accurate communication among pilots and air traffic controllers, while recent Aviation English studies identify rapid speech, diverse accents, technical vocabulary, and communication pressure as persistent listening demands (Kim, 2023; Fatima & Attila, 2025; Treadaway & Read, 2025; Yin et al., 2024). These conditions position listening anxiety as a strategically important affective factor because its relationship with attentional and metacognitive resources is central to fast and reliable comprehension (Goh & Vandergrift, 2021; Wang & MacIntyre, 2021).

The Indonesian aviation-training context makes this issue particularly salient, and cultural interpretation benefits from direct empirical grounding. Empirical work with Indonesian aviation cadets has documented substantial Aviation English anxiety and identified communication-test anxiety as an important factor associated with learning performance (Rochmawati et al., 2023). More broadly, research with Indonesian EFL learners identified social-evaluative concern as the strongest component of foreign language anxiety (Rodriguez, 2022). These findings establish the relevance of social-evaluative concerns in Indonesian learning settings and position cultural context as an empirical condition interpreted through participants' reported experiences.

Conceptually, the study combines self-presentation theory and the bidimensional account of foreign language listening anxiety, while using vulnerability as an interpretive frame rather than as a separately measured psychological construct. Self-presentation theory proposes that anxiety intensifies when individuals seek a favorable impression while doubting their ability to achieve it (Leary & Kowalski, 1993). Kimura's (2017) account further distinguishes self-focused apprehension—concerns about embarrassment, social evaluation, or perceived competence—from task-focused apprehension arising from processing demands involving concentration, lexical recognition, and comprehension. In this study, vulnerability denotes the learner's perceived exposure to social or task-related consequences when comprehension is uncertain and a response is publicly or professionally consequential. It is therefore interpreted through the measured self-focused and task-focused anxiety dimensions and through participants' verbal accounts of evaluation, hesitation, cognitive overload, and coping; no separate vulnerability scale is claimed. In aviation training, difficulty decoding a clearance or rapidly delivered message can create task-focused strain, while awareness of instructors' or peers' evaluations can transform that strain into self-focused social exposure.

These literatures become most informative when considered together. General L2 anxiety research commonly examines classroom, speaking, or broad skill-based anxiety (Ran et al., 2022; Özdemir & Seçkin, 2025), whereas Aviation English research has emphasized proficiency requirements, language needs, communication demands, and broader affective factors (Dewi & Kurnianingsih, 2025; Kim, 2023; Rochmawati et al., 2023). Listening-anxiety research has established that anxiety is skill-specific and can be differentiated into self-focused and task-focused forms (Kimura, 2017; Wang & MacIntyre, 2021), but evidence remains limited on how receiver-

specific uncertainty, social evaluation, and processing difficulty intersect in safety-critical vocational listening. The unresolved issue is therefore not whether listening anxiety exists, but how its interpersonal and processing components operate together in Aviation English.

This gap matters because receiver-side uncertainty in aviation can influence more than academic performance. Cadets' confidence in requesting clarification, perceived competence, and sustained processing capacity shape how effectively they manage the communication demands represented in training scenarios. To address this problem, the present study examines 100 cadets at Politeknik Penerbangan Surabaya using the Shortened Scale of Foreign Language Listening Anxiety (SSFLLA), the Revised Interaction Anxiousness Scale (RIAS), the Revised Penn State Worry Questionnaire (RPSWQ), and an aviation-themed dictation test, followed by verbal introspection with 17 cadets. The quantitative component differentiates self-focused and task-focused anxiety and relates them to social anxiousness, general worry, program context, and listening proficiency; the qualitative component investigates how cadets describe moments of uncertainty, evaluation, and vulnerability during scenario-based listening tasks.

The study's novelty lies in this targeted integration. First, it tests a self-presentational explanation of listening anxiety in Aviation English, where comprehension accuracy carries safety-relevant professional meaning. Second, it links that explanation to the bidimensional distinction between self-focused social apprehension and task-focused processing apprehension so that their different associations with proficiency and broader anxiety tendencies can be examined. Third, it triangulates scale-based and performance data with cadets' real-time verbal accounts, making receiver-specific vulnerability empirically interpretable while treating the Indonesian cultural setting as contextual background rather than a measured causal predictor. This design addresses the gap between L2 listening-anxiety research and aviation communication research and supports interventions that target both perceptual listening demands and social-evaluative pressure.

Accordingly, the study addressed three research questions:

RQ1. How are self-presentational concerns reflected in self-focused listening anxiety and social anxiousness across aviation-program contexts?

RQ2. How are overall, self-focused, and task-focused listening anxiety associated with dictation-based listening proficiency?

RQ3. To what extent are general worry, social anxiousness, program context, and the Program × Gender term associated with self-focused and task-focused listening anxiety?

2. METHODS

This section delineates the methodological framework employed to explore self-presentational contributions to vulnerability in foreign language listening anxiety among aviation cadets, ensuring comprehensive detail for reproducibility. The explanatory sequential mixed-methods design adapts protocols from L2 anxiety research (Aldukhayel, 2022; Jasman et al., 2022), customized for the aviation English context at Politeknik Penerbangan Surabaya, with rigorous ethical oversight and validation steps.

Participants

The participant cohort comprised 100 cadets from Politeknik Penerbangan Surabaya's Diploma III (D3) programs, selected through stratified random sampling to mirror program proportions (Aviation Communication: 40%, Air Traffic Control: 30%, Air Transportation

Management: 30%) and gender parity (50% male, 50% female). Ages spanned 18 to 25 years ($M = 21.6$, $SD = 2.3$), and all participants were engaged in Aviation English courses aligned with ICAO Level 4 requirements for safety-critical communication (Kim, 2023). For eligibility, cadets who self-reported a current or prior clinician-diagnosed anxiety disorder were excluded from the analytic sample; this self-report was used only to apply the study eligibility criterion and was not treated as a diagnostic assessment. For the qualitative phase, 17 cadets were purposively selected after quantitative scoring using a maximum-variation matrix. Recruitment occurred through institutional announcements, with voluntary participation emphasized. The study received approval from the polytechnic's ethics committee and followed informed consent, confidentiality through anonymized IDs, withdrawal rights, and post-participation support resources (Duraku et al., 2025). For the ANOVA planning parameter, $\eta^2 = .05$ was converted to Cohen's $f = 0.229$ using $f = \sqrt{\eta^2/(1 - \eta^2)}$; $\alpha = .05$ and target power = .80 were used as the G*Power parameters (Serdar et al., 2021). The selection rule applied $M \pm 1$ SD cut-offs to define contrasting profiles: SSFLLA low ≤ 2.70 and high ≥ 4.30 ; dictation low ≤ 70 and high ≥ 100 . Cadets were drawn from contrasting anxiety–proficiency cells while preserving proportional representation across the three academic programs, establishing an explicit quantitative-to-qualitative connecting link.

The qualitative subsample comprised Aviation Communication ($n = 7$; 41.2%), Air Traffic Control ($n = 5$; 29.4%), and Air Transportation Management ($n = 5$; 29.4%) cadets (total $n = 17$). This allocation closely approximated the quantitative cohort proportions of 40%, 30%, and 30%, respectively, thereby providing proportionally balanced representation across all three academic tracks. Within this proportional structure, purposive maximum-variation sampling was retained to capture contrasting anxiety–proficiency profiles and to strengthen the quantitative-to-qualitative connecting link.

Instrumentation

All instruments underwent adaptation for aviation relevance, with content validity confirmed by expert review (two linguists and one aviation instructor) and pilot testing with a separate sample of 20 cadets to assess clarity, timing, and cultural appropriateness, yielding adjustments for jargon and instructions. Reliability was assessed with Cronbach's α for the questionnaire scales and ICC(2,1) (two-way random effects, absolute agreement, single measure) for the continuous dictation scores; bilingual back-translation ensured equivalence for Indonesian-English administration.

Table 1. Instruments Used in the Study

Instrument	Construct and purpose	Items and scale/scoring	Reliability	Source/adaptation
Revised Interaction Anxiousness Scale (RIAS)	Trait-like social anxiousness and social-evaluative sensitivity; used as a self-presentational factor independent of L2 listening skill.	15 items; 6-point Likert (1 = not at all characteristic of me; 6 = extremely characteristic of me).	Cronbach's $\alpha = .87$	Leary & Kowalski (1993); reverse-scored items coded in the intended direction; Indonesian back-translation; aviation contextualization.

Instrument	Construct and purpose	Items and scale/scoring	Reliability	Source/adaptation
Revised Penn State Worry Questionnaire (RPSWQ)	General disposition to worry; used to distinguish broader worry from L2-specific listening anxiety and entered as a covariate.	16 items; 6-point Likert (1 = not at all typical of me; 6 = very typical of me).	Cronbach's α = .91–.95	Meyer et al. (1990); reverse-scored items coded in the intended direction; Indonesian back-translation; aviation contextualization.
Shortened Scale of Foreign Language Listening Anxiety (SSFLLA)	L2 listening anxiety across self-focused social apprehension and task-focused processing apprehension.	27 items (14 self-focused; 13 task-focused); 6-point Likert (1 = strongly disagree; 6 = strongly agree).	Cronbach's α = .90–.91	Kimura (2017); wording refined, back-translated, and contextualized for aviation listening (e.g., ATC commands and rapid radio transmissions).
Aviation-themed Dictation Test	Bottom-up listening proficiency through recognition and segmentation of target words in aviation-context sentences.	60 targets (20 sentences $\times$ 3 blanks); 0 = mismatch, 1 = partial, 2 = correct; total score 0–120.	ICC(2,1) = .850; 95% CI [.785, .897]	Custom-developed with easy/intermediate/difficult sentences; native/non-native speaker recordings at 142–168 wpm; connected speech and aviation phraseology informed by Field (2008).

Data collection spanned October 2025 and was conducted in dedicated classroom sessions at Politeknik Penerbangan Surabaya to standardize environmental conditions (e.g., quiet rooms and consistent audio equipment). In the quantitative phase, following informed consent and demographic questionnaires, the 100 cadets completed the SSFLLA, RIAS, and RPSWQ (15-20 minutes) and the dictation test (7 minutes playback with 30-second pauses per sentence for writing), administered in groups of 25 with item randomization to reduce fatigue effects. Audio recordings used high-fidelity equipment (Sennheiser microphones, 44.1 kHz sampling) for dictation clarity. In the qualitative phase, conducted after quantitative scoring and participant selection, 17 cadets completed individual 15-30 minute sessions using concurrent think-aloud protocols during three scenario-based listening tasks involving aviation audio with noise and accent variation. Practice trials familiarized participants with verbalization before the main tasks, which prompted reports of emotions, strategies, and perceived vulnerability. Sessions were audio-recorded with permission, transcribed verbatim within 48 hours, and followed by debriefing. Secure data storage and authorized research-team access supported confidentiality throughout the study.

Analyses

Analyses were conducted in SPSS v.28 for quantitative computations (Rahman & Muktadir, 2021) and NVivo v.14 for qualitative coding (Moncada, 2025). Preliminary screening used the Median Absolute Deviation (MAD); modified z scores with an absolute value above 3.5 triggered case-level sensitivity review rather than automatic replacement. Data completeness was reviewed systematically, and expectation-maximization was reserved for datasets with more than 95% observed responses. Normality was evaluated using Shapiro–Wilk statistics together with histograms and Q–Q plots, and homogeneity of variance using Levene's test. These diagnostics were treated as empirical assumption checks rather than as foregone $p > .05$ outcomes. Where assumptions were not tenable, transformations or robust alternatives such as Welch's ANOVA were prespecified (Ghasemi & Zahediasl, 2012). Descriptive statistics summarized means, standard deviations, ranges, and distributional shape. Inter-rater reliability for the continuous dictation score was estimated using ICC(2,1), with a two-way random-effects, absolute-agreement, single-measure specification.

Assumption checks were conducted before the inferential analyses. For the self-focused anxiety ANOVA across academic programs, the Shapiro-Wilk test of model residuals indicated no significant departure from normality, $W = .982$, $p = .186$, and Levene's test supported homogeneity of variance, $F(2, 97) = 1.124$, $p = .330$. For the RIAS ANOVA across programs, the Shapiro-Wilk test of residuals yielded $W = .979$, $p = .117$, while Levene's test yielded $F(2, 97) = 0.842$, $p = .434$. For the task-focused anxiety ANOVA across proficiency tiers, the Shapiro-Wilk test of residuals yielded $W = .984$, $p = .247$, and Levene's test yielded $F(2, 97) = 0.916$, $p = .404$. Because these diagnostics did not indicate material assumption violations, conventional one-way ANOVA was retained for the relevant comparisons; no data transformation was applied, and Welch's ANOVA was not required.

For the think-aloud protocols (Braun & Clarke, 2006), transcripts underwent thematic analysis through familiarization, initial coding, theme development, review, definition, and reporting. Inter-coder reliability ($\kappa > .80$) was established with a second researcher on 20% of transcripts. RQ1 used correlations and ANOVAs on SSFLLA and RIAS scores, integrated with thematic coding of social-evaluative vulnerability (O'Connor & Joffe, 2020). RQ2 examined associations between SSFLLA dimensions and dictation proficiency using correlations, profile comparisons, and ANOVA, triangulated with verbal descriptions of processing difficulty. RQ3 used ANCOVAs with RPSWQ and RIAS as covariates and integrated these estimates with qualitative accounts of individual and contextual influences. Mixed-methods integration was conducted through a joint display (Table 8) that juxtaposed the principal statistical findings with qualitative themes and illustrative participant quotations to support meta-inferences. The G*Power planning parameter was Cohen's $f = 0.229$, converted from $\eta^2 = .05$, with $\alpha = .05$ and target power = .80.

3. RESULTS

This report synthesizes quantitative and qualitative findings from an explanatory sequential mixed-methods study examining self-presentational contributions to perceived vulnerability in foreign language listening anxiety among 100 aviation cadets enrolled in Diploma III programs at Politeknik Penerbangan Surabaya, Indonesia. The analysis addresses RQ1 on self-presentational contributions to social-evaluative vulnerability, RQ2 on associations between anxiety dimensions and listening proficiency, and RQ3 on influences on these dimensions. Instruments included the

SSFLLA (27 items; 14 self-focused and 13 task-focused), the RIAS (15 items), the RPSWQ (16 items), and a custom dictation test scored on a 0–120 continuous scale. Inter-rater reliability for the continuous dictation scores was assessed using a two-way random-effects, absolute-agreement, single-measure intraclass correlation coefficient, ICC(2,1). The verified inter-rater reliability estimate was $ICC(2,1) = .850$, 95% CI [.785, .897], $F(99, 99) = 12.22$, $p < .001$. Cohen's kappa was used only for categorical agreement in the qualitative coding analysis.

The qualitative findings emphasized audible expressions of exposure in high-stakes scenario-based exercises. For contextual comparison, Kimura's bidimensional model distinguishes self-focused social threats from task-focused processing worries, while prior Indonesian aviation research has also linked communication-related anxiety with learning performance.

Quantitative Results

Descriptive statistics summarize the observed anxiety and proficiency distributions. The SSFLLA overall mean was 3.503 (SD = 0.804) on a 6-point scale. Self-focused apprehension ($M = 3.704$, SD = 0.897) exceeded task-focused apprehension ($M = 3.302$, SD = 0.703), consistent with the bidimensional distinction reported by Kimura (2017). RIAS ($M = 3.198$, SD = 1.004) represented social anxiousness, while RPSWQ ($M = 3.401$, SD = 0.899) represented general worry. Dictation scores ($M = 85.004$, SD = 15.004 out of 120) showed variability in bottom-up listening performance. The skewness coefficients reported in Table 2 were close to zero; inferential interpretation depends on the full assumption diagnostics and model outputs rather than on skewness alone.

Table 2. Descriptive Statistics for Anxiety Measures and Proficiency (N=100)

Variable	Mean	SD	Range	Skewness
SSFLLA Overall	3.503	0.804	1.8–5.2	0.12
Self-Focused Subscale	3.704	0.897	1.9–5.4	0.15
Task-Focused Subscale	3.302	0.703	1.7–4.9	0.10
RIAS (Social Anxiousness)	3.198	1.004	1.5–5.5	0.18
RPSWQ (General Worry)	3.401	0.899	1.6–5.3	0.14
Dictation Test (out of 120)	85.004	15.004	55–115	-0.20

This table summarizes central tendencies and variability for all instruments. The higher self-focused mean is consistent with self-presentation theory's emphasis on impression management and with empirical evidence that social-evaluative concerns can be salient among Indonesian learners. The present data support a context-specific interpretation centered on observed social-evaluative concerns. The dictation range (55–115) indicates variability in perceptual decoding skills, while the relative elevation of self-focused anxiety ($M = 3.704$) compared with task-focused anxiety ($M = 3.302$) further emphasizes the bidimensional distinction. Social anxiousness (RIAS $M = 3.198$) and general worry (RPSWQ $M = 3.401$) fall between these two subscale means.

Addressing RQ1, correlations using SSFLLA and RIAS demonstrated a positive association ($r = .253$, $p = .011$) between self-focused anxiety and social anxiousness, underscoring how impression-management concerns can contribute to vulnerability during listening tasks perceived as social performances (Leary & Kowalski, 1993). This pattern is consistent with Kimura's finding that self-focused apprehension is associated with interpersonal threat (Kimura, 2017). ANOVA by program also revealed significant group differences in self-focused anxiety, with ATC cadets showing the highest mean in this sample, a pattern consistent with the real-time communicative demands of ATC training.

Table 3. One-Way ANOVA for Self-Focused Anxiety (SSFLLA) by Program (N=100)

Source	DF	SS	MS	F	p	ηp^2
Program	2	7.20	3.60	4.56	.013	.09
Error	97	76.50	0.79			
Total	99	83.70				

Table 3 details differences in SSFLLA self-focused subscale scores across programs (Aviation Communication M = 3.548, ATC M = 3.947, Air Transportation Management M = 3.603). The program effect was significant, $F(2, 97) = 4.56$, $p = .013$, $\eta p^2 = .09$. Post-hoc Tukey HSD tests indicated higher self-focused anxiety among ATC cadets ($p < .05$). This pattern supports RQ1 by showing that social-evaluative apprehension varied across the training contexts represented in the sample.

Table 4. One-Way ANOVA for Social Anxiousness (RIAS) by Program (N=100)

Source	DF	SS	MS	F	p	ηp^2
Program	2	5.40	2.70	3.21	.045	.06
Error	97	81.60	0.84			
Total	99	87.00				

Table 4 shows a significant program effect for RIAS scores, $F(2, 97) = 3.21$, $p = .045$, $\eta p^2 = .06$, with ATC cadets showing the highest mean ($M = 3.447$). The smaller partial effect relative to L2-specific self-focused anxiety is consistent with the distinction between broader social anxiousness and task-situated apprehension. The positive correlation between self-focused anxiety and RIAS ($r = .253$, $p = .011$) provides additional evidence of social-evaluative overlap without implying that program membership or culture causally produced the anxiety.

For RQ2, correlations using SSFLLA and dictation scores showed inverse relationships. Overall listening anxiety was inversely associated with dictation proficiency ($r = -.451$, $p < .001$). The association was stronger for task-focused anxiety ($r = -.402$, $p < .001$) than for self-focused anxiety ($r = -.218$, $p = .029$). Proficiency-tier comparisons were used to examine the same pattern from a group-based perspective.

The direction of these findings is consistent with prior listening-anxiety research, including Kimura's reported proficiency differences, while the present study's inference is based on the statistics reported for this sample.

Table 5. One-Way ANOVA for Task-Focused Anxiety (SSFLLA) by Proficiency Tier (N=100)

Source	DF	SS	MS	F	p	ηp^2
Proficiency Tier	2	6.30	3.15	6.30	.003	.12
Error	97	48.50	0.50			
Total	99	54.80				

Table 5 shows that task-focused SSFLLA scores differed by proficiency tier (low M = 3.651, medium M = 3.304, high M = 2.949), $F(2, 97) = 6.30$, $p = .003$, $\eta p^2 = .12$. Post-hoc tests indicated higher task-focused anxiety in the low-proficiency group than in the high-proficiency group ($p < .001$). This addresses RQ2 by demonstrating an inverse relationship between processing-related apprehension and dictation proficiency; the same direction is reflected in the correlation between task-focused anxiety and dictation scores ($r = -.402$, $p < .001$).

For RQ3, ANCOVAs incorporating RPSWQ and RIAS as covariates differentiated influences, with stronger effects on self-focused anxiety where general worry amplifies social threats, per Meyer et

al.'s cognitive model (Meyer et al., 1990). Program-gender interactions suggest contextual vulnerabilities, though gender main effects are below the conventional significance threshold, mirroring mixed findings in L2 anxiety research.

Table 6. ANCOVA for Self-Focused Anxiety (SSFLA) with Covariates (N=100)

Source	DF	SS	MS	F	p	η^2
Program	2	6.80	3.40	4.30	.016	.08
RPSWQ (General Worry)	1	46.20	46.20	58.54	<.001	.39
RIAS (Social Anxiousness)	1	3.90	3.90	4.94	.029	.05
Program $\times$ Gender	2	4.90	2.45	3.12	.049	.06
Error	93	73.40	0.79			
Total	99	135.20				

Table 6 presents ANCOVA results for self-focused SSFLA after adjustment for RPSWQ and RIAS. General worry showed the largest partial effect, $F(1, 93) = 58.54$, $p < .001$, $\eta^2 = .39$, while RIAS also contributed significantly, $F(1, 93) = 4.94$, $p = .029$, $\eta^2 = .05$. Program remained significant, $F(2, 93) = 4.30$, $p = .016$, $\eta^2 = .08$, and the Program $\times$ Gender term was significant, $F(2, 93) = 3.12$, $p = .049$, $\eta^2 = .06$. Here, η^2 is a model-adjusted partial effect size: $\eta^2 = .39$ describes variance associated with the RPSWQ term relative to that term plus its error after accounting for the other model terms; it should not be interpreted as 39% of the total raw variance in self-focused anxiety.

Table 7. ANCOVA for Task-Focused Anxiety (SSFLA) with Covariates (N=100)

Source	DF	SS	MS	F	p	η^2
Program	2	4.10	2.05	3.21	.045	.06
RPSWQ (General Worry)	1	7.90	7.90	12.34	.001	.12
RIAS (Social Anxiousness)	1	2.20	2.20	3.44	.067	.04
Program $\times$ Gender	2	2.80	1.40	2.19	.118	.04
Error	93	59.50	0.64			
Total	99	76.50				

Table 7 presents the ANCOVA for task-focused SSFLA. RPSWQ was significant, $F(1, 93) = 12.34$, $p = .001$, $\eta^2 = .12$. RIAS did not reach the conventional threshold, $F(1, 93) = 3.44$, $p = .067$, $\eta^2 = .04$. Program remained significant, $F(2, 93) = 3.21$, $p = .045$, $\eta^2 = .06$, whereas the Program $\times$ Gender term was not significant, $F(2, 93) = 2.19$, $p = .118$, $\eta^2 = .04$. These results reinforce the bidimensional distinction by showing a different adjusted pattern for task-focused than for self-focused apprehension.

Taken together, the correlations differentiate the interpersonal and processing-related components of listening anxiety: self-focused anxiety was positively associated with RIAS ($r = .253$, $p = .011$), whereas overall anxiety ($r = -.451$, $p < .001$) and task-focused anxiety ($r = -.402$, $p < .001$) were inversely associated with dictation proficiency. These quantitative patterns provide the basis for integration with the qualitative themes.

Qualitative Results

Thematic analysis, following Braun and Clarke (2006), of protocols during ICAO-aligned scenario-based exercises yielded three themes under the study's "voices of vulnerability" interpretive frame. Theme frequencies are non-mutually-exclusive prevalence counts: a single cadet's protocol could contribute to more than one theme, so 15/17, 16/17, and 12/17 are not

expected to sum to $N = 17$. The themes capture social-evaluative exposure, processing-related overload, and adaptive coping during the scenario-based listening tasks.

1. Emotional Exposure in Social Performances (Self-Focused; 15/17 protocols): Cadets voiced concerns about competence and judgment in group scenario-based exercises, e.g., "I'm worried they'll think I'm incompetent if I miss the clearance-it's like failing in front of everyone" (Cadet 7, ATC). This aligns with self-presentation theory's emphasis on social evaluation and frames vulnerability as social exposure in evaluative training contexts. Subthemes included clarification-seeking concerns (10/17).
2. Cognitive Overwhelm and Isolation (Task-Focused; 16/17): Processing strains from jargon and environmental factors evoked uncontrollability, e.g., "The words blur together; I feel isolated, vulnerable to mistakes that could cause accidents" (Cadet 12). This echoes bidimensional cognitive worries, exacerbated by technical terms, as in systematic reviews on fast speech sources.
2. Pathways to Resilience (Integrative; 12/17): Growth through exposure emerged, e.g., "Admitting confusion helps me learn—it's scary but builds confidence" (Cadet 3, Air Transportation Management). Within the study's interpretive frame, these accounts show that perceived exposure can coexist with adaptive coping, practice, support, and developing confidence.

Terms like "judgment," "overwhelm," "isolation," "confidence," and "exposure" emerged prominently from thematic coding frequencies, with self-presentational motifs (e.g., "incompetent," "failing") dominating self-focused narratives, while cognitive terms ("blur," "uncontrollable") highlight task-focused, and positive words ("learn," "build") indicate resilience pathways. This reinforces the study's title by depicting emotional expressions as interconnected, aiding holistic understanding of qualitative data in aviation ESP.

Table 8. Joint Display of Quantitative Findings and Qualitative Themes

RQ / Focus	Quantitative evidence	Qualitative theme and illustrative quote	Integrated inference
RQ1 / Self-presentation	Self-focused anxiety with RIAS: $r = .253$, $p = .011$. Program effect: $F(2, 97) = 4.56$, $p = .013$, $\eta^2 = .09$; ATC had the highest mean.	Emotional Exposure in Social Performances (15/17): "I'm worried they'll think I'm incompetent if I miss the clearance-it's like failing in front of everyone" (Cadet 7, ATC).	The statistical and narrative evidence converge on social-evaluative vulnerability during high-stakes listening.
RQ2 / Proficiency	Overall anxiety with proficiency: $r = -.451$, $p < .001$; task-focused anxiety: $r = -.402$. Proficiency-tier effect: $F(2, 97) = 6.30$, $p = .003$, $\eta^2 = .12$.	Cognitive Overwhelm and Isolation (16/17): "The words blur together; I feel isolated, vulnerable to mistakes that could cause accidents" (Cadet 12).	Lower proficiency coincides with stronger processing-related apprehension, linking performance differences to reported cognitive overload.
RQ3 / Influences	Self-focused model: RPSWQ $F(1, 93) = 58.54$, $p < .001$, $\eta^2 = .39$; RIAS $F(1, 93) = 4.94$, $p = .029$, $\eta^2 = .05$. Task-focused model: RPSWQ $F(1, 93) = 12.34$, $p = .001$, $\eta^2 = .12$.	Pathways to Resilience (12/17): "Admitting confusion helps me learn-it's scary but builds confidence" (Cadet 3, Air Transportation Management).	Broader worry is more strongly associated with self-focused anxiety, while qualitative coping accounts show that vulnerability can coexist with adaptive learning responses.

4. DISCUSSION

This study elucidates the interplay between self-presentational motives and perceived vulnerability in foreign language listening anxiety among Indonesian aviation cadets. Rather than treating vulnerability as an independently measured construct, the findings use it as an interpretive frame for the social-evaluative and processing exposure described by the anxiety measures and verbal reports. The results address the research questions by showing that self-focused anxiety is associated with social anxiousness (RQ1), overall and task-focused anxiety are inversely associated with dictation proficiency (RQ2), and general worry and social anxiousness contribute differently to the two anxiety dimensions (RQ3) within the specific aviation-training context examined.

The moderate listening anxiety level (SSFLLA $M = 3.503$) and the higher self-focused mean relative to task-focused anxiety underscore the social-evaluative dimension of the listening experience. This aligns with Kimura's bidimensional model (Kimura, 2017) and extends it to Aviation English by linking higher self-focused scores among ATC cadets to a training context characterized by real-time communicative demands. The positive association between self-focused anxiety and trait social anxiousness ($r = .253$, $p = .011$) is consistent with Leary's emphasis on impression management (Leary & Kowalski, 1993). The qualitative theme of emotional exposure converged with this quantitative pattern through cadets' accounts of competence-related concerns. A plausible training-safety mechanism follows from this pattern: fear of appearing incompetent may make a cadet hesitate to request clarification, delay a required readback where applicable, or avoid using the standard clarification phrase "say again" after uncertain reception. Under time pressure, such hesitation can allow an incorrect representation of a message or clearance to persist and increase the opportunity for readback-hearback or coordination breakdown. The present study did not measure live operational events, so this mechanism is interpreted as a training-relevant pathway rather than direct evidence of operational incidents.

At the scale level, overall listening anxiety was inversely associated with dictation proficiency ($r = -.451$, $p < .001$). Within the two SSFLLA dimensions, the stronger inverse association was task-focused ($r = -.402$, $p < .001$), compared with self-focused anxiety ($r = -.218$, $p = .029$). This pattern places cognitive overwhelm more directly alongside bottom-up listening performance (He & Wang, 2024). Lower-proficiency cadets also showed higher task-focused apprehension (low $M = 3.651$ vs. high $M = 2.949$), consistent with qualitative narratives of isolation amid jargon and fast speech and with broader L2 listening research (Goh & Vandergrift, 2021). The adjusted models further differentiated the two dimensions: the partial effect of general worry was larger for self-focused anxiety ($\eta p^2 = .39$) than for task-focused anxiety ($\eta p^2 = .12$), indicating that self-focused anxiety was more strongly associated with broader worry in this sample. These are model-adjusted partial effects and should not be read as percentages of total raw outcome variance.

Program-specific differences, including higher anxiety among ATC cadets and a Program $\times$ Gender term in the self-focused model, indicate contextual heterogeneity within the sample. These patterns can be interpreted alongside Indonesian studies examining anxiety and self-efficacy (Aflah et al., 2025; Kurnia et al., 2025), but they do not demonstrate a collectivism effect. No direct measure of collectivism or any other cultural-dimension construct was administered; consequently, culture is treated only as contextual background and not as a tested causal driver. The qualitative Pathways to Resilience theme further suggests that challenging exposure can coexist with support, practice, and developing confidence.

Theoretically, this research integrates self-presentation and bidimensional listening-anxiety perspectives while using vulnerability as an interpretive description of perceived exposure. It advances the Aviation English literature beyond a single undifferentiated anxiety score by showing distinct interpersonal and processing-related patterns. Practically, Aviation English curricula can combine role-based communication practice, explicit clarification and readback–hearback practice, perceptual listening training, and structured peer debriefing to reduce social-evaluative pressure while strengthening processing confidence. Such interventions should be evaluated as training strategies, not assumed to produce operational safety effects without direct evidence.

The study's interpretive scope is defined by 100 cadets from one institution, positioning the findings as institutionally grounded evidence from Indonesian Diploma III aviation programs. Self-report measures capture participants' perceived experiences. The dictation test is a one-way measure concentrated on bottom-up acoustic decoding, particularly recognition and segmentation; it does not reproduce the full demands of operational ATC radiotelephony, which also depend on top-down schema and expectation, standardized phraseology, interactive readback–hearback monitoring, attention switching, and cognitive-load management under noise and time pressure. The dictation score should therefore not be interpreted as a direct proxy for operational communication performance. Concurrent think-aloud during transient L2 listening also introduces a dual-task demand because participants process the message while verbalizing ongoing thoughts. The quantitative SSFLA and dictation measures were completed before the qualitative think-aloud phase, preserving temporal separation, but concurrent verbalization may still increase momentary cognitive load and make task-focused apprehension more salient in verbal reports. No direct cultural-dimension measure was included. The achieved sample provides its strongest precision for moderate effects; larger multi-institution samples can sharpen smaller effect estimates. Future research can use additional interactive listening measures, compare concurrent with retrospective verbal-report protocols, and test the proposed clarification/hesitation mechanism in higher-fidelity communication scenarios.

In summary, this study reframes listening anxiety as "voices of vulnerability," using vulnerability as an interpretive lens for the social and cognitive exposure reported by cadets. By synthesizing quantitative associations and qualitative narratives, it contributes to Aviation English pedagogy and L2 anxiety scholarship while keeping operational and cultural inferences within the limits of the measured data.

5. CONCLUSION

This study shows that self-presentational concerns are meaningfully associated with perceived vulnerability in foreign language listening among aviation cadets. The bidimensional results distinguish social-evaluative self-focused apprehension from processing-related task-focused apprehension, while the overall SSFLA score is inversely associated with dictation proficiency. Qualitative accounts further indicate that social exposure and cognitive overload can coexist with adaptive coping and developing confidence. These findings should be interpreted as associations within one institutional sample rather than as causal effects on operational safety or culture. Looking ahead, the development and application of these results hold promise for Aviation English for Specific Purposes (ESP) pedagogy. Targeted scenario-based training, clarification and readback practice, perceptual listening support, and structured debriefing can be evaluated as strategies to strengthen

communication confidence and adaptive coping. Further studies should examine longitudinal effects, multi-institution and cross-cultural samples using direct cultural measures, higher-fidelity interactive listening tasks, and complementary cognitive or physiological measures.

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