

Analysis of Speech Anxiety among EFL Learners in Japan: A Comparison between Gender

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Abstract—Due to the high encouragement from the Japan Ministry of Education, Culture, Sports, Science, and Technology (MEXT) to promote more internationalization among Japanese graduates, many higher education institutions have started introducing more communicative courses such as public speaking and presentation skills. These goals not only aim to ameliorate students' communication skills, but also to foster global human resources. Although considerable research has been conducted on students' communication skills, few have explored the causes of speech anxiety among university students, especially in the context of English as a Foreign Language (EFL). Thus, this study aims to fill this gap by analyzing 43 university students in Tokyo, Japan. According to the results, a pivotal link between gender and speech anxiety was found. Specifically, the female students exhibited higher public speaking anxiety, compared to the male students. This study also investigated the sources of speech anxiety in four domains: communicative apprehension, fear of negative evaluation, test anxiety, and general anxiety of English. Among all four components, the EFL students recorded the highest anxiety in communication apprehension. It is also interesting to note that after completing the presentation skills course, the female students showed a significant reduction in the fear of negative evaluation domain. It is hoped that the findings of this study will be used by instructors to improve EFL students' communication skills.

Keywords—speech anxiety, public speaking anxiety, EFL learners, communication skills

I. INTRODUCTION

Since globalization is expected to further progress, it is becoming increasingly important to develop active human resources with the skills to express opinions (without hesitation) in a foreign language, to interact with others, and to proactively live/work with people of different languages and cultures in various domestic and international settings. Thus, the Japan Ministry of Education, Culture, Sports, Science, and Technology (MEXT) has highly encouraged foreign language skills (including English) to be improved in higher education,

as stated in *The Third Basic Plan for the Promotion of Education* [1]. In response, more universities are starting to propose globalization in their departments and faculties in order to cultivate graduates who can effectively communicate in English [2].

Among the four language communication skills, speaking is often seen as one of the most difficult ones to acquire in language classrooms, especially for non-native speakers [3, 4]. It has also been noted that Japanese students tend to have anxiety when speaking English, which negatively affects their willingness to communicate [5, 6]. According to existing literature, speaking anxiety is one of the main issues in speaking tasks. Due to its ubiquity, research in Public Speaking Anxiety (PSA) is considered vast, with many scholars focusing on this issue. This topic is also essential because it is linked to students' employability and the development of global human resources [2]. Meanwhile, the COVID-19 pandemic has increased people's social anxiety, adding to the difficulty of presenting speeches in front of audiences.

McCroskey [7] defined PSA as an uneasiness when asked to speak in front of an audience, while Brown [8] considered PSA as a state of being unable to perform a speech task, despite the preparations. Other terms associated with PSA include "speech anxiety, performance anxiety, speech fear, and social speech freight" [9]. Additionally, when asked to perform a speaking task, the PSA symptoms of one individual can vary from those of another. As for physiological symptoms, Shamsuddin *et al.* [10] mentioned that they include stuttering, trembling hands, and freezing up, while Bodie [9] reported that some participants experience numbness, disorientation, and gastrointestinal issues.

In the early literature on PSA, scholars have linked this term with social anxiety. However, in recent literature, many believe that speech anxiety is a separate entity. For instance, Horwitz *et al.* [11] classified foreign language speaking anxiety into three categories: communication apprehension, test anxiety, and fear of negative evaluation. Their research not only provided new insights in this field, but had also been used as a reference for additional studies in speech anxiety [7, 12]. More

recently, Yaikhong and Usaha [13] categorized PSA into four components: communication apprehension, fear of negative evaluation, test anxiety, and general anxiety of English. These four domains will be further explored in the present study.

In this study, the authors examine the speech anxiety levels of English as a Foreign Language (EFL) learners in Japan based on these four categories. The anxiety levels were measured through pre- and post-tests. The pre-test was conducted at the beginning of the presentation skills course, whereas the post-test was conducted toward the end of the course. It is hoped that the results of this study will be used by teachers when dealing with students' anxiety during communication. It is also hoped that the results will guide educators in developing a suitable curriculum specifically aimed at EFL learners.

II. METHODOLOGY

A. Participants

The authors recruited 43 undergraduate students (male = 28, female = 15) to participate in this study. The students (majoring in urban life studies) were enrolled in an English presentation class at a private university in Tokyo, Japan. Since all of the participants had Japanese as their first language, they were considered EFL learners.

B. Instrument

In order to determine the PSA of the participants, the authors administered an online questionnaire using the Public Speaking Class Anxiety (PSCAS) instrument for both the pre- and post-tests. The PSCAS, which was developed by Yaikhong and Usaha [13] and later adopted by Shamsuddin *et al.* [10], focuses on learners with English as their second language (ESL learners). However, some alterations were made to match the EFL context in the present study. Moreover, in order to foster the data collection process, the questionnaire items were translated into Japanese by a native speaker and then vetted to ensure that the context and meanings matched the objectives of the research. The internal consistency coefficients using Cronbach's alpha were 0.9378 for the pre-test and 0.9324 for the post-test. Fraenkal and Wallen [14] mentioned that any instrument with a Cronbach's alpha above 0.7 is considered reliable. Hence, our instrument was highly reliable.

Fig. 1 presents the questionnaire items used to measure the PSA of the learners in this study. First, the overall mean for each questionnaire item was recorded. The results were then analyzed to observe any differences between the pre- and post-tests. Furthermore, all of the questionnaire items were categorized into the four domains shown in Table I [10].

TABLE I. DOMAINS OF THE PSCAS ITEMS

Domain	Item in Questionnaire
Communication Apprehension	4, 5, 9, 10, 11, 12, 13
Fear of Negative Evaluation	6, 7, 15, 16, 17
Test Anxiety	2
General Anxiety of English	1, 3, 8, 14

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. In Presentation class, I can get so nervous that I forget things I know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The more presentation I have in class, the more confused I get.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I have fear of speaking English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I don't feel confident when speaking in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I want to speak less because I feel shy while speaking English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. It embarrasses me to volunteer to go out first to speak English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I often tremble when knowing that I am going to be called on to speak English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I do not enjoy the experience of speaking English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I start to panic when I have to speak English without a preparation in advance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I never feel quite sure of myself when I'm speaking English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I get nervous and confused when I am speaking in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I dislike using my voice and body expressively while speaking English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I have trouble coordinating (synchronising) my movements when speaking in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Even if I am well-prepared, I still feel anxious about speaking English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I feel very self-conscious (embarrassed/uncomfortable) while speaking English in front of other students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I am afraid that other students will laugh at me when I am speaking in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I keep thinking that other students are better at speaking English than I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 1. The questionnaire items used to measure the PSA of EFL learners.

III. RESULTS

In this study, the data was divided into two categories: 1) a comparison between the pre- and post-tests in general; and 2) a comparison and post-test for each domain of the PSCAS items. The authors also included an analysis based on gender. The questionnaire employed a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with the overall mean toward 5 considered as high PSA, whereas any value toward 1 is considered as low PSA.

Fig. 2 shows the overall, male, and female PSA means according to the pre- and post-tests. Based on this figure, there was a significant decrease in overall PSA from the pre- to post-tests ($t(16) = 3.8, p < 0.002$). In addition, the analysis of each gender showed a significant decrease, with $t(16) = 2.6, p < 0.02$ for the males and $t(16) = 4, p < 0.001$ for the females.

The authors further analyzed the PSA based on four specific components: 1) communication apprehension; 2) fear of negative evaluation; 3) general anxiety of English; and 4) test anxiety. The comparison of the PSA means for each domain is illustrated in Fig. 3. According to the pre- and post-tests, the communication apprehension domain registered the highest anxiety levels.

Here, we describe the analysis for each component. First, the PSA means for the communication apprehension domain showed a decrease from the pre-test to the post-test (see Fig. 4). However, there was no significant difference in the overall, male, and female PSA means according to the pre- and post-tests.

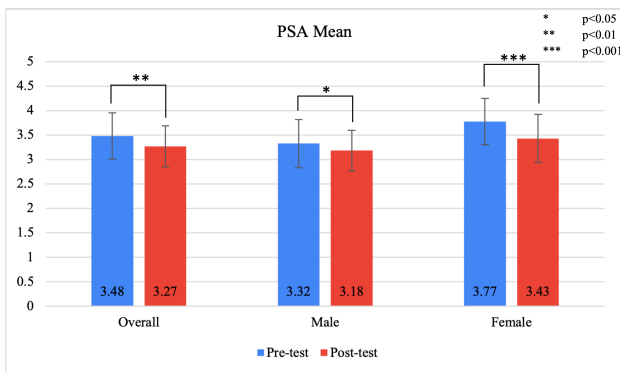


Figure 2. The overall, male, and female PSA means according to the pre- and post-tests.

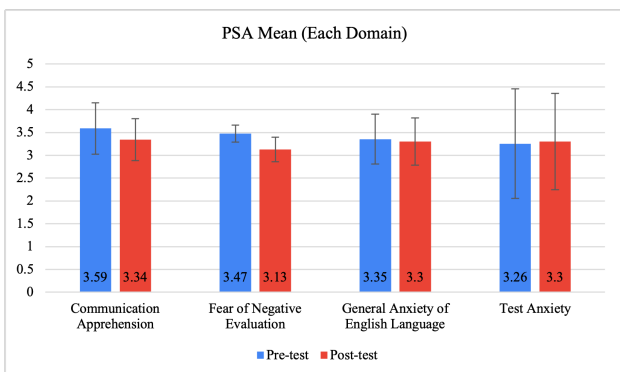


Figure 3. The PSA means of each domain according to the pre- and post-tests.

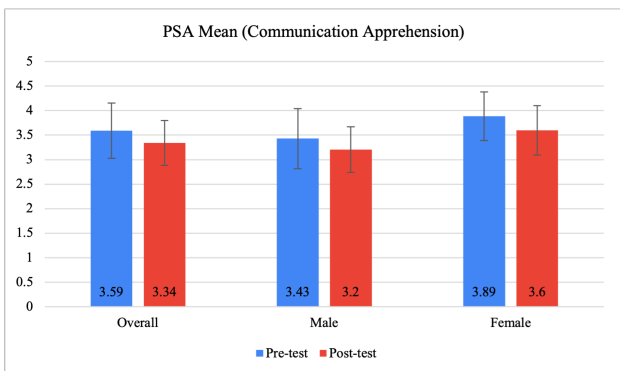


Figure 4. The overall, male, and female PSA means for the communication apprehension domain according to the pre- and post-tests.

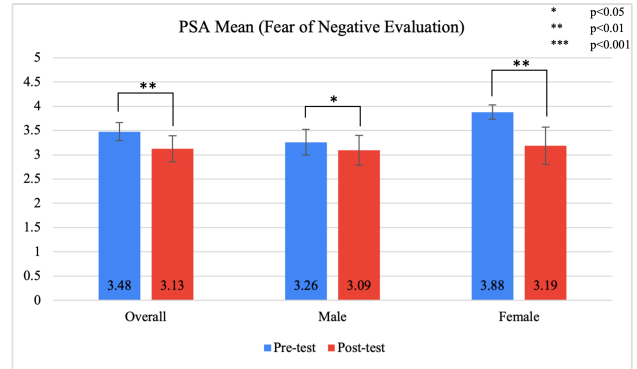


Figure 5. The overall, male, and female PSA means for the fear of negative evaluation domain according to the pre- and post-tests.

As for the overall, male, and female PSA means for the fear of negative evaluation domain, the results demonstrated a decrease (see Fig. 5). Moreover, there was a significant difference ($p < 0.003$) in the overall PSA means. The analysis of each gender also showed a significant decrease, with $p < 0.038$ for the males and $p < 0.005$ for the females.

Fig. 6 shows the PSA means for the general anxiety of the English language domain according to the pre- and post-tests. The results showed a decrease in overall PSA. However, based on the gender analysis, only the females experienced a decrease, while for the males remained at the same level as the pre-test.

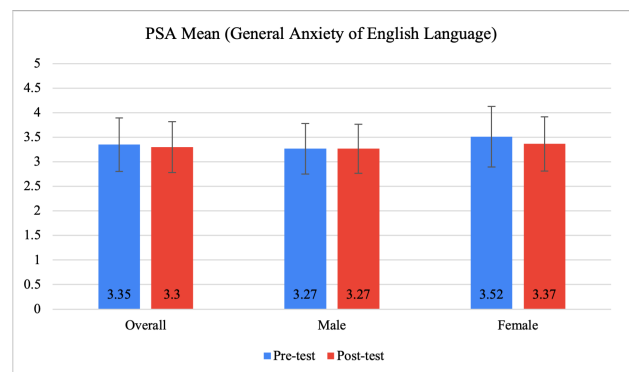


Figure 6. The overall, male, and female PSA means for the general anxiety of English language domain according to the pre- and post-tests.

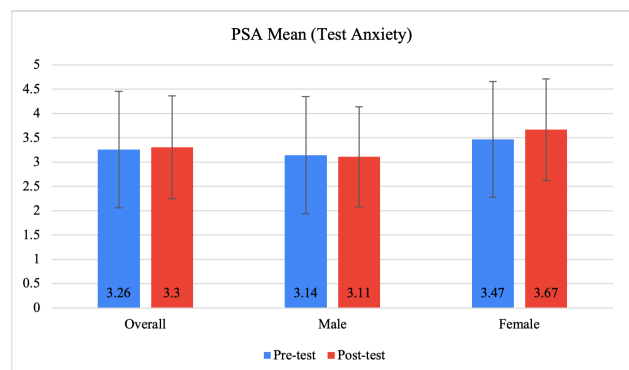


Figure 7. The overall, male, and female PSA means for the test anxiety domain according to the pre- and post-tests.

The PSA means for the test anxiety domain are shown in Fig. 7. Interestingly, there was an increase from the pre-test to the post-test for the overall factor. However, the anxiety in the males showed a decrease, which was in contrast to that in the females.

IV. DISCUSSION

In this study, the authors analyzed the anxiety levels of a sample of EFL learners in Japan during a public speaking course. We found that their anxiety decreased after the completion of the course, as hypothesized. Interestingly, the female students recorded higher speech anxiety, in comparison to the male students. The findings concur with a study in Spain, which found that female students have higher anxiety than male students [15].

The authors also analyzed PSA, which was divided into four domains: communication apprehension, fear of negative evaluation, general anxiety of English, and test anxiety. Communication apprehension includes physiological symptoms such as increased heartbeat and sweaty palms. The fear of negative evaluation is linked to the fear of being perceived as incompetent. For example, the fear that the audience will laugh at you during your presentation. Test anxiety involves the fear of getting evaluated based on a class assessment. This domain typically occurs in classroom settings. Finally, general anxiety of English is a domain in which non-native speakers must perform a speech task using the target language.

Based on the comparison of PSA means for each domain in the pre- and post-tests, it was found that the communication apprehension domain had the highest anxiety levels. This suggests that out of the four domains, the EFL learners experienced physiological symptoms such as sweaty palms during the public speaking sessions. This is an interesting finding because Shamsuddin *et al.* [10] found that ESL learners have the greatest anxiety in using English for presentations. However, since EFL learners have different types of anxiety, instructors are advised to incorporate a cognitive modification approach or exposure therapy.

According to Westwick [16], instructors can incorporate this cognitive modification approach in classrooms by identifying students' negative perceptions when speaking in front of an audience and replacing them with more positive experiences. Another way is through exposure therapy, in which the instructor gradually exposes the students to negative stimuli associated with presentation skills [16]. Shamsuddin *et al.* [10] tested this approach using Virtual Reality (VR) technology in order to help students overcome their fear of public speaking and found promising results.

Another notable result from this study was that the female students had a significant reduction in the fear of the negative evaluation domain after completing the presentation skills course. This finding suggests that the course effectively reduced the speech anxiety among female students. Westwick [16] reported that attending

skills training or public speaking courses can help overcome PSA.

Another significant finding was that the female students showed an increase in anxiety for graded assessments during the presentation skills course. A similar finding can be found in a study by an English department at an Iranian university in which the female students had higher test anxiety, compared to the male students. Based on this finding, instructors must pay more attention to female students, especially when conducting graded assessments [15, 17].

V. CONCLUSION

This study determined the anxiety levels of a sample of EFL learners in Japan during a public speaking course. According to the results, there is an interesting correlation between gender and speech anxiety. Specifically, the findings suggest that male students have lower anxiety in speaking, compared to female students. The anxiety levels were also analyzed to determine which component induced the anxiety the most. In this regard, EFL learners have more fear when talking in front of people, compared to using English or having a negative evaluation and being graded.

Overall, the findings can be used to guide educators in creating a suitable curriculum in which they can help EFL learners identify their fears in speaking and instill a more positive learning environment. The learners can also undergo communication training (as an anxiety treatment) by utilizing technology such as VR. This could be the next step in determining a suitable method for reducing PSA.

Nevertheless, there are limitations in this study that should be noted. First, the findings were based on a relatively small sample of participants. Second, this study determined the anxiety levels among EFL learners, but was only limited to Japanese students. Therefore, future studies should incorporate more participants and include EFL learners from other countries in order to generalize the results.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Conceptualization: M.N.A.M.A., W.N.F.W.S.; Methodology: M.N.A.M.A., W.N.F.W.S.; Analysis: M.N.A.M.A.; Funding Acquisition: A.K.Y.; Literature Review: W.N.F.W.S.; Writing: M.N.A.M.A., W.N.F.W.S.; Validation: A.K.Y. All authors had approved the final version.

FUNDING

The authors would like to extend their gratitude to the individuals who participated in this study. A part of this work was supported by JSPS KAKENHI Grant Number 20K02947.

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