

Anxiety and Its Effects on Listening and Speaking Achievements of Engineering Students

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Abstract: The study investigated the anxiety and its effects on listening and speaking achievement of engineering students, Sriwijaya State Polytechnic. It was quantitative research. The samples were 109 students of the electrical engineering study program. The researcher used Foreign Language Classroom Anxiety Scale with some adaptation to collect the data about anxiety and took the data about the listening and speaking achievements of the students from listening and speaking tests. The researcher used descriptive statistics, Pearson Product Moment Coefficient Correlation, and linear regression to analyze the data. The negative correlation between student foreign language classroom anxiety and the listening achievement of the students was significant. Next, student foreign language classroom anxiety also correlated negatively towards student speaking achievement. Finally, there were some contributions of foreign language classroom anxiety towards student listening and speaking achievements.

Keywords: *Foreign language classroom anxiety, listening, speaking*

Day by day, the competition in the industrial world is getting higher. To be the winner, job seekers should have good hard and soft skills. Universities, polytechnics, and other educational institutions must be aware of this problem. State Polytechnic of Sriwijaya has understood that the students should be prepared with good hard skills and soft skills. Therefore, the institution conducted the best effort to solve the problem. To bridge the market demand with the supply, the State Polytechnic of Sriwijaya obliges students from all departments to take English courses. It is obliged to ensure that they have sufficient skills in English.

Some previous research showed that anxiety might affect the academic achievement of the students in some ways. The research conducted by Halder (2018) showed that there was a correlation between English language anxiety and the academic achievement of the students ($r = -0.327$ and $p < 0.001$); the correlation was significant and negative. Serraj & Noordin (2013) mentioned the significant negative correlation between listening anxiety and listening comprehension of the students with $r = -0.414$ and $p < 0.05$. Lili (2015) claimed that the higher anxiety the students experience, the worse the listening achievements they make. In terms of speaking, Chinese EFL students tend to avoid oral communication in EFL classes (Liu and Jackson, 2008). Therefore, the researcher tried to investigate the anxiety of engineering students in EFL classes and its impacts on listening and speaking achievements.

In particular, the researcher wanted to find out the type of foreign language anxiety experienced by engineering students; listening and speaking skills owned by engineering students; and the relationship among the variables.

Listening is a dynamic procedure where one assesses and reacts to the verbal messages (Helgesen, 2003). It starts from interpreting incoming sounds until making meaning out of them (Buck, 2001). Azmi, Celik, Yidliz, and Tugrul (2014) mention that the problems encountered by the students in attaining listening comprehension are the recording quality of the listening materials; the difference in terms of culture, accent, unfamiliarity in terms of vocabulary, and the length and speed of listening.

Speaking is two-way interactive communication aiming at constructing the meaning of the activities like producing, receiving, and processing the information (Luoma, 2004). People speak for some reasons (Kingen, 2000). Perhaps, they want to express their feelings regarding today's weather. They may complain about the frustration they experience. Otherwise, they want to describe someone they met at the concert or the seminar. At other times, they tell stories about exciting adventures. Asking for help or information is also the reason why people speak. Sometimes, people compare two different ideas or figuring a future career or they want to mention something interesting. Al Hosni (2014) mentions that some speaking barriers were experienced by the students. Therefore, the researcher believed that the idea mentioned by Richards (2006) regarding the promotion of the authentic situations to make students feel convenience in practicing speaking should be conducted. Elmenfi and Gaibani (2016) stated that social evaluation can influence the anxiety of the students when studying English; it is found in their research that some students get speaking anxiety because of social evaluation. Anxiety can inhibit students when learning a second language or a foreign language. It harms language acquisition (Ewald, 2007). Therefore, the teacher needs to understand the situation and perform a convenient atmosphere.

Learning a second language or a foreign language can increase the anxiety of the students. They create psychological tension for the students when they accomplish the learning tasks (Zhang, 2001). Therefore, the teachers and other parties should find out an interactive strategy to decrease the anxiety of the students.

RESEARCH METHODOLOGY

The independent variable of this current research was foreign language classroom anxiety of electrical engineering students. Foreign language classroom anxiety in this research means English classroom anxiety. The dependent variables were listening achievement and speaking achievement of electrical engineering students.

English classrooms of Electrical Engineering Sriwijaya State Polytechnic were the research sites. The participants were the third-semester students of the Electrical Engineering Study Program, State Polytechnic of Sriwijaya academic year 2020-2021. The researcher chose the third-semester students as the respondents because they have understood the situation and condition of the teaching and learning process in State Polytechnic of Sriwijaya, especially at the Electrical Engineering Study Program.

Foreign language classroom anxiety scale recommended by Horwitz et., al. (1986) with some adaptation was used to collect the data about foreign language classroom anxiety. The researcher asked the respondents to respond to the questionnaire given to them. The researcher asked them to fulfill the data regarding the name, class, and gender. She also asked them to choose the right choice based on their perceptions of each item. The number of the items was 33. The respondents can choose whether they strongly disagree (1), disagree (2), neither agree nor disagree, (3), agree (4), or strongly agree (5) to the statement.

The researcher collected the data about listening and speaking achievements of electrical engineering students through listening and speaking tests.

The researcher analyzed the data regarding kinds of foreign language classroom anxiety experienced by electrical engineering students, listening achievements of electrical engineering students, and the speaking achievements of electrical engineering students by using descriptive statistics.

The researcher analyzed the correlation between foreign language classroom anxiety and listening achievement of electrical engineering students; the correlation between foreign language classroom anxiety and speaking achievement of electrical engineering students; and the effect of foreign language classroom anxiety on listening and speaking achievement of electrical engineering students by using Pearson Product Moment Coefficient Correlation and linear regression.

The following was the interpretation of the coefficient correlation mentioned by Sugiyono (2008) which was used by the researcher. The correlation is very low if the coefficient interval ranges from 0.0 until 0.199. If the coefficient interval ranges from 0.20 until 0.399, the correlation is low. The level of correlation is moderate if the coefficient interval ranges from 0.40 until 0.599. The correlation is high (strong) if the coefficient interval ranges from 0.60 until 0.799 and if the coefficient interval ranges from 0.80 until 1.000, the correlation is considered very high (very strong).

The following was the interpretation of the speaking and listening scores (Politeknik Negeri Sriwijaya, 2008) which were used by the researcher. The student does not pass the exam (fail)—the relative score is E— if he got the absolute score ranging from 0 to 39. The student has a low score (D) if his score ranges from 40 to 53. If he got the absolute score ranging from 54 to 65, his score is considered moderate (C). If his score ranges from 66 to 79, he can have a good score (B). Finally, if his score ranges from 80 to 100, he can have a very respectable remark (A).

FINDINGS AND DISCUSSION

There were 27.5% of 109 respondents who disagreed and strongly disagreed with the statement that they never felt quite sure of themselves when speaking in their foreign language class, 48.6% of them neither agreed nor disagreed, and 23.9% agreed and strongly agreed. There were 19.2% of them who disagreed and strongly disagreed with the statement that they were not worried about making mistakes in the language class, 9.2% neither agreed nor disagreed, and 71.6% agreed and strongly agreed. 28.4% of them disagreed and strongly disagreed with the statement that they trembled when they knew that the teacher would call them on in language class, 51.4% neither agreed nor disagreed, and 20.2% agreed and strongly agreed. Thirty-four point nine percent of the respondents disagreed and strongly disagreed with the statement regarding the lack of understanding towards the explanation given in the foreign language, 45% neither agreed nor disagreed, and 20.2% agreed and strongly agreed. There were 19.2% who disagreed and strongly disagreed with the statement that taking more foreign language classes would not bother them at all, 6.4% neither agreed nor disagreed, and 74.3% agreed and strongly agreed. There were 67% who disagreed and strongly disagreed with the statement that during a language class, they found themselves thinking about things that had nothing to do with the course, 12.8% neither agreed nor

disagreed, and 20.2% agreed and strongly agreed. There were 69.7% disagreed and strongly disagreed with the statement that they kept thinking that the other students were better at languages than they were, 10.1% neither agreed nor disagreed, and 20.2% agreed and strongly agreed. There were 19.3% who disagreed and strongly disagreed with the statement that they were usually at ease during tests in their language class, 6.4% neither agreed nor disagreed, and 74.3.0% agreed and strongly agreed. There were 69.7% disagreed and strongly disagreed with the statement that they started to panic when they had to speak without preparation in the language class, 10.1% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. Seventy-six point one percent of the respondents disagreed and strongly disagreed with the statement that they worried about the consequences of failing their foreign language class, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. 19.3% of the respondents disagreed and strongly disagreed with the statement regarding the lack of understanding why some people get so upset over foreign language classes, 6.4% neither agreed nor disagreed, and 74.37% agreed and strongly agreed. Only 20.1% of the respondents agreed and strongly agreed with the statement regarding the anxiety and lack of remembering the things they know, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. 76.1% of the respondents disagreed and strongly disagreed with the statement that it embarrassed them to volunteer answers in their language class, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. There were 19.3% who disagreed and strongly disagreed with the statement that they would not be nervous speaking the foreign language with native speakers, 4.6% neither agreed nor disagreed, and 76.1% agreed and strongly agreed. Many respondents disagreed and strongly disagreed with the statement that they got upset when they could not understand what the teacher was correcting, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. Many respondents disagreed and strongly disagreed with the statement that even if they prepared well for a language class, they still felt anxious, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. 76.1 % of the respondents disagreed and strongly disagreed with the statement that they often felt like not going to their language class, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. There were 19.3% who disagreed and strongly disagreed with the statement that they felt confident when they spoke in a foreign language class, 4.6% neither agreed nor disagreed, and 76.1% agreed

and strongly agreed. Only 20.1% of the respondents agreed and strongly agreed with the statement that they were afraid that their language teacher was ready to correct every mistake they made, 3.7% neither agreed nor disagreed, and the rest disagreed and strongly disagreed. Many respondents disagreed and strongly disagreed with the statement that they felt their heart pounding when the teacher called him in the language class; meanwhile, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. 76.1% strongly disagreed with the statement that the more they study for a language test, the more confused they get; only some of them neither agreed nor disagreed, and 20.1% agreed and strongly agreed. There were 18.4% who disagreed and strongly disagreed with the statement that they did not feel pressured to prepare for language classes well, 5.5% neither agreed nor disagreed, and 76.1% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that they always felt that the other students spoke the foreign language better than they did, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. More than 70% of the respondents disagreed and strongly disagreed with the statement that they felt very self-conscious about speaking the foreign language in front of other students, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that language class moved so quickly, so they worried about getting left behind, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that they felt more tense and nervous in their language class than in their other classes, 3.7% neither agreed nor disagreed, 20.1% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that they get nervous and confused when speaking in their language class, 4.6% neither agreed nor disagreed, and 19.3% agreed and strongly agreed. There were 18.3% who disagreed and strongly disagreed with the statement that when they were on their way to language class, they felt very sure and relaxed, 5.5% neither agreed nor disagreed, and 76.1% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that they got nervous when they did not understand every word the language teacher mentions; 6.4% neither agreed nor disagreed, and 19.3% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that they felt overwhelmed by the number of rules they had to learn to speak a foreign language, 4.6% neither agreed nor disagreed, and 19.3% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that

they were afraid that the other students would laugh at them when they spoke the foreign language, 3.7% neither agreed nor disagreed, and 20.18% agreed and strongly agreed. There were 18.3% who disagreed and strongly disagreed with the statement that they would probably feel comfortable around native speakers of the foreign language, 5.5% neither agreed nor disagreed, and 76.1% agreed and strongly agreed. 76.1% disagreed and strongly disagreed with the statement that they got nervous when the language teacher asked questions they had not prepared in advance, 3.7% neither agreed nor disagreed, and 20.1% agreed and strongly agreed.

There were 109 respondents who did listening test; 1.8% of them got the score of 56 and 60; 4.6% got the score of 63; 0.9% got the score of 64; 1.8% got the score of 65; 2.8% got the score of 66; 6.4% got the score of 67; 6.4% got the score of 70; 0.9% got the score of 73; 1.8% got the score of 74; 17.4% got the score of 75; 1.8% got the score of 76; 20.2% got the score of 77; 13.8% got the score of 78; 1.8% got the score of 79; 11.0% got the score of 80; 0.9% got the score of 83; 2.8% got the score of 85; 0.9% got the score of 86; 0.9% got the score of 87; and 0.9% got the score of 90.

There were 109 respondents who did speaking test; 1.8% got the score of 60; 0.9% got the score of 62; 0.9% got the score of 64; 3.7% got the score of 65; 0.9% got the score of 66; 5.5% got the score of 70; 2.8% got the score of 72; 1.8% got the score of 73; 2.8% got the score of 74; 23.9% got the score of 75; 1.8% got the score of 76; 14.7% got the score of 77; 17.4% got the score of 78; 11% got the score of 80; 1.8% got the score of 81; 2.8% got the score of 82; 0.9% got the score of 83; 0.9% got the score of 84; 0.9% got the score of 86; 1.8% got the score of 87; and 0.9% got the score of 90.

The correlation between students' foreign language classroom anxiety and the listening achievement of electrical engineering students of Sriwijaya State Polytechnic was -0.525. It means that there was a significant negative correlation, and the correlation was moderate. The correlation between foreign language classroom anxiety of the students and the speaking accomplishment of electrical engineering students of Sriwijaya State Polytechnic was -0.543. It means that there was a significant negative correlation, and the correlation was moderate too.

The contribution of foreign language classroom anxiety towards listening accomplishment was 27.6% (The R Square was 0.276). It means that unexplained factors

contributed 72.4% towards listening attainment of the students. The constant score of the students' Listening Achievement was 91.507; it means that if there was no foreign language classroom anxiety, the students can get the score until 91.507 for listening. Because the coefficient regression of the variety of foreign language classroom anxiety was -0.177 where t-obtain was bigger than t-table ($6.386 > 1.9823$) and the significance was lower than 0.05 ($0.000 < 0.05$), students' foreign language classroom anxiety has a significant effect on students' listening Achievement.

The contribution of foreign language classroom anxiety towards students' speaking achievement was 29.5% (the R Square was 0.295). It means that there was 70.5% of the variance in student speaking achievement was contributed by unexplained factors. The constant score of the students' speaking achievement was 90.612; it means that if there was no foreign language classroom anxiety, the students can get the score until 90.612 for speaking. Coefficient regression of the variety of foreign language classroom anxiety was -0.156. It means the increase of foreign language classroom anxiety will decrease the students' speaking achievement by 0.156. Because the t-obtain was bigger than the t-table ($6.697 > 1.98238$) and the significance was lower than 0.05 ($0.000 < 0.05$), students' foreign language classroom anxiety has a significant effect on the speaking achievement of the students.

The result of the questionnaire showed that many students felt quite confident in foreign language classes especially in English class. It indicates that they may have sufficient competencies, especially in listening and speaking English. They felt relaxed and did not have anxiety when learning English. They were challenged to speak English in the classroom because they had sufficient self-confidence. They considered testing as the integral part of learning, therefore, they believed that failure was not the end of everything; repetition would make them stronger and more skilled. Of course, it was relieving finding. This means that teachers and others involved must maintain these good conditions to improve students' educational outcomes. It is in line with the idea mentioned by Richards (2006); the teacher should promote authentic situations in English class. The students also believed that they didn't get nervous and confused when they were in their listening class.

Next, the finding also showed that the students were able to handle the problem in gaining speaking competence like the ability to express their feeling regarding today's

weather and so on. It is in line with the idea mentioned by Kingen (2000) regarding the reasons why people speak.

The rules they had to learn, the challenge of speaking with native speakers, and the cynical stares from classmates were not significant obstacles for the students. Of course, this is good news. Another thing that makes them strong was that motivation from themselves regarding the importance of making business and developing relationships. In this case, teachers and other parties should maintain these good strengths that had been built.

Unfortunately, some of the students felt frightened because they did not understand the material being studied and thought that many other students were smarter than them. It is in line with the research conducted by Al Hosni (2014) regarding the speaking barriers experienced by the students. In this case, the teachers and other parties should collaborate to reduce student anxiety.

Even though only some students are influenced by negative external factors like being afraid towards the correction, being afraid towards failed presentation, and being afraid of having an examination, the teachers still should be careful with how they handle the students in the classroom. It is in line with the idea mentioned by Elmenfi and Gaibani (2016) regarding social assessment that can have an impact on students' anxiety in studying English. To handle the students' worries, the teachers should do something to make them more confident when communicating in English classroom. It is in line with the idea mentioned by Ewald (2007) regarding the anxiety that can inhibit students' competence in studying English.

Some students felt worried when the teachers run the English class too quickly, when they could not understand some words the lecturer said, and when the lecturer asked some questions. In this case, the role of the teachers to calm down the students is really needed. The teachers can create a convenient academic atmosphere in foreign language classrooms so that the students feel relaxed. Zhang (2001) mentioned that students' anxiety can create psychological tension. Therefore, interactive strategies should be found out to decrease the anxiety of the students.

Sufficient knowledge and skills regarding listening and speaking competencies that the students have are a good start and they will end with success if the teachers and other parties take special attention regarding these listening and speaking achievements.

There was a significant negative correlation between students' foreign language classroom anxiety and the listening achievement of electrical engineering students of Sriwijaya State Polytechnic. There was also a significant negative correlation between students' foreign language classroom anxiety and the speaking achievement of electrical engineering students of Sriwijaya State Polytechnic. These two findings showed that the lower the anxiety of the students, the higher the listening and speaking achievement of the students. Vice versa, the higher the anxiety of the students, the lower the listening and speaking achievement of the students. These findings also showed that the teachers and other parties involved in these matters should pay attention and consider them as important points that need to be considered in maintaining a good academic atmosphere, especially regarding foreign language classroom anxiety. The teachers have to facilitate their students with a convenient academic atmosphere in order to decrease the foreign language classroom anxiety and increase their listening and speaking achievements. It is in line with the research conducted by Lili (2015) who claimed that the higher anxiety the students experience, the worse the listening achievements of the students. It is also in line with the research conducted by Serraj and Noordin (2013) regarding the listening anxiety and the listening achievement of the students. The fact that the students' foreign language classroom anxiety has a significant effect on listening and speaking achievements should make the teachers and other parties involved in these matters take special attention.

Even though there were some contributions of foreign language classroom anxiety towards listening and speaking achievements, there were still many other variances in listening and speaking achievements of the students contributed by unexplained factors. Therefore, those unexplained factors should be investigated to increase the listening and speaking achievements of the students.

CONCLUSION

The finding showed that the students had sufficient knowledge and skills regarding listening and speaking competencies. There were some foreign language classroom anxieties experienced by the students with some different levels of anxiety. There was a significant negative correlation between students' foreign language classroom anxiety and the listening achievement of electrical engineering students of Sriwijaya State Polytechnic. There was also a significant negative correlation between students' foreign language classroom anxiety

and the speaking achievement of electrical engineering students of Sriwijaya State Polytechnic. There were some contributions of foreign language classroom anxiety towards listening and speaking achievement of the students and the rest were contributed by unexplained factors. Students' foreign language classroom anxiety had a significant effect on listening and speaking achievement of the students of electrical engineering State Polytechnic of Sriwijaya. It is suggested that the teachers and other parties manage a good atmosphere in and around English classrooms; pay attention to the correlation between the foreign language classroom anxiety, listening achievement, and speaking achievement of the students; and investigate unexplained factors that may influence the students' listening and speaking achievements.

REFERENCES

- Al Hosni, S. (2014). Speaking Difficulties Encountered by Young EFL Learners. *International Journal on Studies in English Language and Literature (IJSELL)* 2(6), 22-30
- Azmi, B. M., Celik, B., Yidliz, N., & Tugrul, M. C. (2014). Listening comprehension difficulties encountered by students in second language learning class. *Journal of Educational and Instructional Studies in the World*, 4(4), 1-6.
- Buck, G. (2001). *Assessing listening*. New York: Cambridge University Press.
- Elmenfi, F., & Gaibani, A. (2016). The role of social evaluation in influencing public speaking anxiety of English language learners at Omar Al-Mukhtar University. *Arab World English Journal*, 7(3), 496-505
- Ewald, J. D. (2007). Foreign language learning anxiety in upper-level classes: Involving students as researchers. *Foreign Language Annals*, 40(1), 122-142.
- Halder, U., K. (2018). English Language Anxiety and Academic Achievement. *North Asian International Research Journal of Social Science & Humanities*, 4(3), 138-147.
- Helgesen, M. (2003). *Listening in practical language teaching*. Edited by David Nunan. McGraw-Hill.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. A. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.
- Kingen, S. (2000). *Teaching language arts in middle schools: Connecting and communicating*. New Jersey: Lawrence Erlbaum Associates, Publishers.

- Lili, Z. (2015). Influence of anxiety on English listening comprehension: An investigation based on the freshmen of English majors. *Studies in Literature and Language*, 11(6), 40-47.
- Liu, M., & Jackson, J. (2008). An exploration of Chinese EFL learners' unwillingness to communicate and foreign language anxiety. *The Modern Language Journal*, 92(1), 71-86.
- Luoma, S. (2004). *Assessing speaking*. Cambridge: Cambridge University Press.
- Richards, J. C. (2006). *Communicative language teaching today*. New York: Cambridge University Press.
- Serraj, S., & Noordin, N (2013). Relationship among Iranian EFL students' foreign language anxiety, foreign language listening anxiety, and their listening comprehension. *English Language Teaching*, 6(5), 1-12
- Politeknik Negeri Sriwijaya (2008). *Buku Pedoman Akademik*. Penerbit Politeknik Negeri Sriwijaya, Palembang.
- Sugiyono (2008). *Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif dan R & D*. Penerbit: Alfabeta.
- Zhang, L., J. (2001). Exploring variability in language anxiety: Two groups of pre students learning ESL in Singapore. *RELC Journal* 32(1), 73-91.