

# **A COMPARATIVE ANALYSIS OF ENGINEERING STUDENTS' PROBLEMS IN SPEAKING AND WRITING**

Isarji Hj Sarudin<sup>1</sup>, Ainol Madziah Zubairi<sup>2</sup> and Afiza Mohamad Ali<sup>3</sup>

<sup>1,2</sup>International Islamic University, Malaysia (<sup>1</sup>isarji@iiu.edu.my; <sup>2</sup>ainol@iiu.edu.my)

<sup>3</sup>Universiti Kuala Lumpur, Malaysia (drafiza@unikl.edu.my)

## **ABSTRACT**

The objective of the study was to investigate the English language problems in terms of speaking and writing skills of engineering students at a technical university in Malaysia based on the perceptions of students and English language lecturers. The study was conducted within the framework of needs analysis as part of the larger curriculum review exercise in the effort to redesign English language courses that meet the needs of the stakeholders. A 15-item questionnaire was formulated and distributed to 612 engineering students and 36 English language lecturers of the technical university. The findings of the survey indicated that there is a difference between students' and lecturers' perceptions of students' problems in speaking and writing. Based on the findings of the study relevant recommendations were made to assist in the decision making process of the curriculum review exercise.

## **KEYWORDS**

Language problems, Speaking, Writing, Curriculum review, English for Specific Purposes, Needs analysis

## **INTRODUCTION**

One of the recommendations mentioned consistently in research projects commissioned by the Malaysian Ministry of Higher Education is the need for a comprehensive review of English for Specific Purposes (ESP) programmes of Malaysian universities (Morshidi et al., 2008; Isarji et al., 2008). The recommendation is in direct response to the nation's concern for the declining standard of English among Malaysian university students and graduates and the need to meet the expectations of the stakeholders. The research project reported that based on scores in the English Proficiency Test (EPT) and perceptions of business leaders, government officials and academic staff, Malaysian university students, in general, were considered limited users of English in the productive skills; namely, writing and speaking (Isarji et al., 2008).

The literature on ESP, college graduates, and employability reveals a list of problems faced by university students in terms of writing and speaking such as writing reports, memos, proposals, formal letters, instructions, manuals, summaries, technical jargons, and using grammatically correct sentences, participating in discussions, communicating with people, telephone conversations, everyday conversation, oral presentation, and negotiations (Horowitz, 1986; Basturkmen and Al-Huneidi, 1996; Ferris and Tagg, 1996; Hyland, 1997; Sullivan and Girginer, 2002; Abdul Aziz, 2004; Siti Hanim and Ismie Roha, 2005; Isarji et al., 2008); and Ostler et al., 2008).

This study was conducted within the framework of needs assessment as part of the larger curriculum review exercise in the effort to redesign English language courses, especially in terms of speaking and writing skills of engineering students that meet the needs of the stakeholders. The research questions were as follows:

1. What are the problems of engineering students in writing and speaking?
2. What are the problems of engineering students in writing and speaking from the lecturers' point of view?
3. Is there a difference between the perceptions of students and lecturers?

## **METHODOLOGY**

This study utilized a survey based on a four-point Likert scale. The items in the survey were developed based on sub-skills in the productive skills. Six items were included in the survey in order to capture the perceptions of students' writing sub-skills while ten items were to capture the perceptions of students' speaking sub-skills. The survey was distributed to engineering students and English language lecturers of a technical university in Malaysia. A total of 612 students and 36 English language lecturers responded to the survey. Responses to the survey were subjected to descriptive analysis using the *SPSS* software version 12. In the analysis, the responses based on 'Agree' and 'Strongly Agree' categories were combined in order to capture the agreement to each statement.

## **FINDINGS**

The findings are presented based on the three research questions. A summary of the findings based on students' and lecturers' performance are reported separately for both skills (speaking and writing skills). The summary of results is based on percentages of responses according to agreement to the statements in the questionnaires.

The first research question is as follows:

### ***RQ1: What are the problems of engineering students in writing and speaking?***

According to Figure 1, on the average, more than half of the students reported that they had difficulties in writing. The most problematic writing sub-skill was writing grammatically correct sentences (71%), followed by choosing suitable words (66%), as well as developing and organizing their writing (56.5%). The writing sub-skill with the least problem as reported by the students was linking sentences in a paragraph (46.8%), followed by spelling correctly (47.7%), and combining paragraphs in an essay (47.7%).

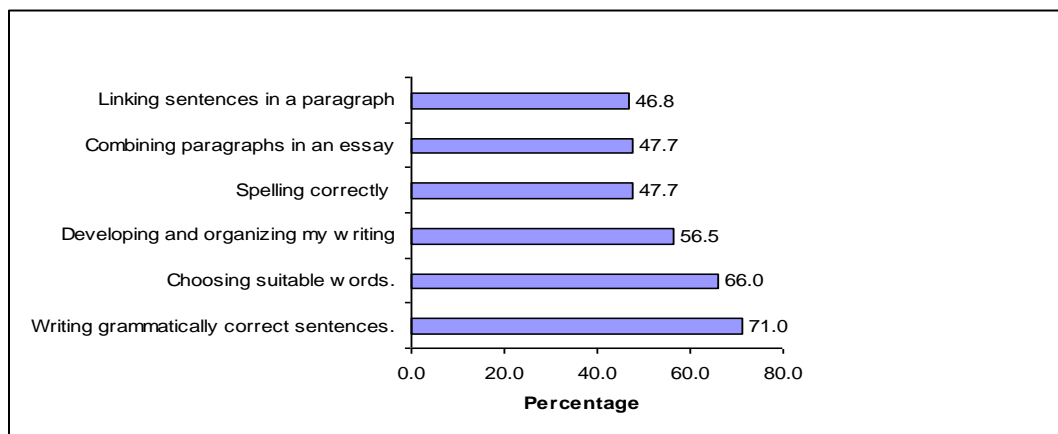


Figure 1: Engineering students' perceptions of their problems in writing

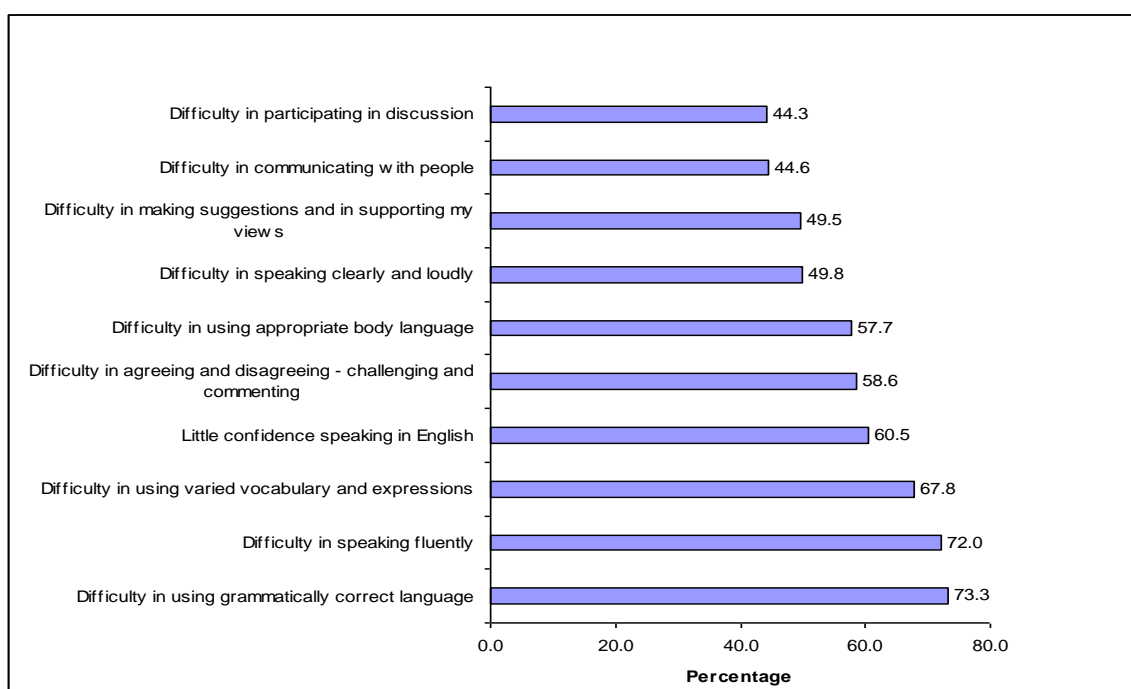


Figure 2: Engineering students' perceptions of their problems in speaking

In terms of engineering students' perceptions of their problems in speaking, the data tabulated in Figure 2 shows that they had problems using grammatically correct language (73.3%), speaking fluently (72%), using varied vocabulary and expressions (67.8%) as well as speaking confidently in English (60.5%). The students, on the other hand, perceived to have fewer problems with participating in discussion (44.3%), communicating with people (44.6%), making suggestions and supporting their views (49.5%), and speaking clearly and loudly (49.8%).

The second research question asked,

***RQ2: What are the problems of engineering students in writing and speaking from the lecturer's point of view?***

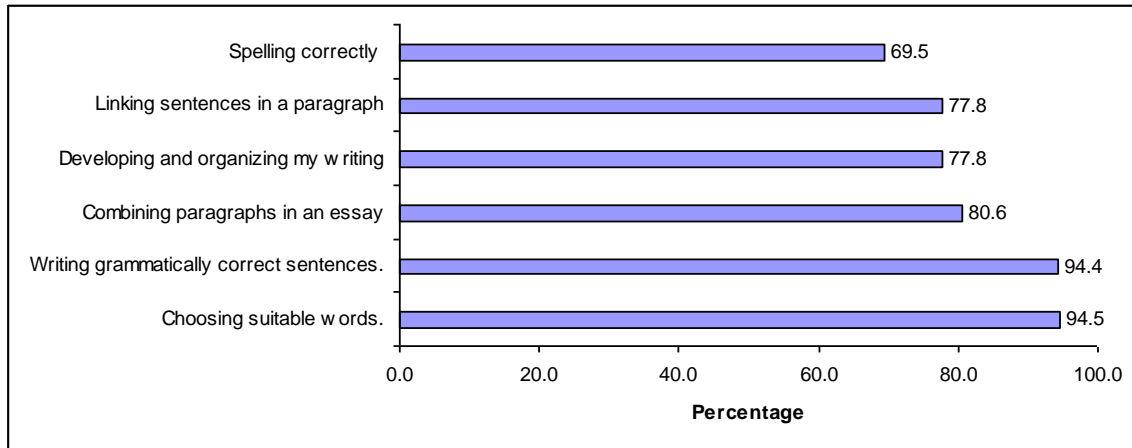


Figure 3: Lecturers' perceptions of engineering students' problems in writing

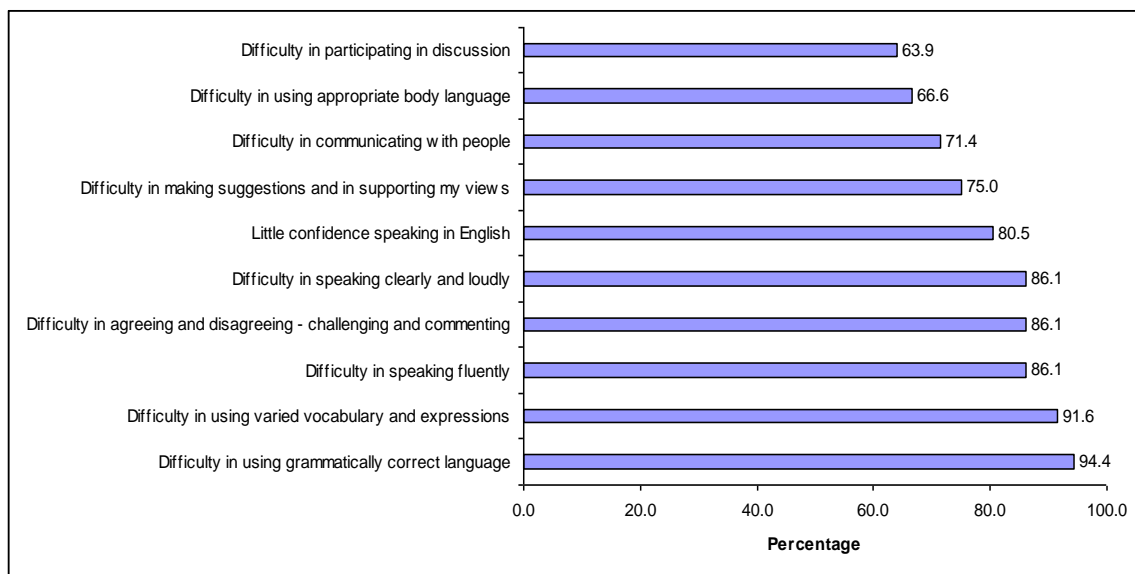


Figure 4: Lecturers' perceptions of engineering students' problems in speaking

The lecturers reported that the students had problems with all the sub-skills of speaking (Figure 4). The biggest problem was choosing suitable words (94.5%), followed by writing grammatically correct sentences (94.4%), and combining paragraphs in an essay (80.6%).

As far as speaking is concerned, the lecturers reported that the students had problems with all speaking sub-skills (Figure 4). The top three problems reported were using grammatically correct language (94.4%), using varied vocabulary and expressions (91.6%) and speaking fluently (86.1%).

The third research question is as follows:

### ***RQ3: Is there a difference between the perceptions of students and lecturers?***

The independent sample t-test conducted indicates that there is a significant difference ( $p \leq 0.05$ ) between the perceptions of students and lecturers of students' problems in writing and speaking in all the items (see Appendix 1). This shows that overall, the way the students perceive their problems in writing and speaking differ from the way their English language lecturers perceive the students' problems. The results also show that the mean of the lecturers' ratings on all the items were consistently higher than of the students' ratings of their own speaking and writing problems. In a separate analysis, on the average, 56.2% of the students perceived writing as a problem as compared to the views of the lecturers on the same issue, which is 82.4%. Similarly, 58% of the students perceived speaking as a problem in contrast to the views of the lecturers, which is 80.2%.

## **DISCUSSIONS**

This study is a small component of a larger curriculum review exercise. The findings of the study, in general, suggest that both students and English language lecturers were in agreement that the students had:

1. *problems in writing and speaking;*
2. *specific writing problems in choosing suitable words and writing grammatically correct sentences; and*
3. *specific speaking problems in using grammatically correct language, using varied vocabulary and expressions, and speaking fluently.*

Not only that both lecturers and students concurred that students had problems in writing and speaking, there is a significant difference between how students' and lecturers' perceived students' problems. The lecturers tended to be more critical of the students' problems in writing and speaking than the students themselves. One may not be far fetch to conjecture that the reason for the perceptions to be significantly different perhaps is due to the tenacity of most English language lecturers to accentuate the importance of attaining a minimum threshold level in order to succeed in an English medium university in contrast to the lackadaisical attitude of many Malaysian students towards English. The findings of this study are consistent with the literature on the perceptions Malaysian university lecturers and students of students' attitudes towards English in general (Isarji et al., 2008).

The findings of the study also provide realistic recommendations pertaining to curriculum review exercise. Firstly, in addition to the teaching of listening, speaking, reading and writing, there is a need to include grammar as an important core competence of language learning. The grammar component, however, needs to be taught in context instead of in isolation not only to ensure that language learning activities relate to the real world but also to enhance students' motivation. It needs to be emphasized; however, for English language teaching and learning to solely focus on grammar is to ignore the importance of communicative competence as the ultimate goal. Secondly, students need to be provided with more opportunities to be involved in activities that promote rich vocabulary acquisition. Finally, in a curriculum review exercise, it is imperative to include the opinions of the stakeholders particularly the students and teaching staff. The fact that both students and lecturers acknowledged the same language problems, even though there is a significant difference between their perceptions make it less demanding for the programme provider to

design a language programme that meets the needs of the stakeholders including the students and university.

## CONCLUSION

Even though Malaysian university students have the benefit of at least 11 years of exposure to English language learning as a subject in a school setting, the findings of the study indicate that both students and lecturers perceived grammar and vocabulary to be problematic to students. On this account, 3 hours of exposure to English a week for 14 weeks, which is a normal duration of an English course in a university will not produce a miracle. Notwithstanding, with a proper needs analysis, the programme provider will be able to formulate appropriate learning outcomes, adapt, adopt or develop relevant materials and design suitable learning activities to ensure university students are better prepared not only to undertake rigorous credit bearing faculty courses in English but also to enter the employment world.

## REFERENCES

Abdul Aziz, M.N.B. (2004) 'Needs Analysis of Malaysian Higher National Diploma Students', Unpublished MA thesis. University Malaya.

Basturkmen, H. and Al Huneidi, A. (1996) 'The Language Needs Analysis Project at the College of Petroleum Engineering Kuwait University. ERIC Document.' Retrieved February 5<sup>th</sup> 2009.

Ferris, D. and Tagg, T. (1996) 'Academic Oral Communication Needs of EAP Learners: What Subject-Matter Instructors Really Requires', *TESOL Quarterly*, 30, 1, 31-55.

Highland, K. (1997) 'Is EAP Necessary? A Survey of Hong Kong Undergraduates', *Asian Journal of English Language Teaching*, 7, 77-99.

Horowitz, D. (1986) 'What Professors Actually Require: Academic Tasks for the ESL Classroom', *TESOL Quarterly*, 20(3), 445-462.

Isarji Hj Sarudin, Ainol Madziah Zubairi, Mohamad Sahari Nordin and Mohd Azmi Omar (2008) 'The English Language Proficiency of Malaysian Public University Students'. In Md Yurof Abu Bakar, Nor Eieni Hj Mokhtar, Rohana Jani, Ainol Madziah Zubairi, Norasma Othman and Aries Gan (eds.), *Enhancing the Quality of Higher Education through Research: Shaping Future Policy*. Kuala Lumpur: Ministry of Higher Education. pp. 40-65.

Morshidi Sirat, Ambigapathy Pandian, Balakrishnan Muniandy, Fazal Mohamed Mohamed Sultan, Harshita Aini Haroon, Hazita Azman, Muhammad Kamarul Kabilan, and Ratna Roshida Abdul Razak (2008) 'The University Curriculum and the Employment of Graduates'. In Md Yurof Abu Bakar, Nor Eieni Hj Mokhtar, Rohana Jani, Ainol Madziah Zubairi, Norasma Othman and Aries Gan (eds.), *Enhancing the Quality of Higher Education through Research: Shaping Future Policy*. Kuala Lumpur: Ministry of Higher Education. pp. 136-159.

Ostler, Catherine, Sheldrake, Charlotte, Vogel, Vicki, and West, Elizabeth. (2008) 'Benchmarking First-Year English: An Analysis of the Language Proficiencies Required for Entry into First-Year English Composition', <http://www.bccat.ca/pubs/ESL-Benchmarking-1st-yr-English.pdf>. (Retrieved 12 January 2009)

Siti Hanim Stapa and Ismie Roha Mohd Jais (2005) 'A Survey of Writing Needs and Expectations of Hotel Management and Tourism Students', *English for Specific Purposes World*. Online Journal for teachers. Issue 1(9), Volume 4. [http://www.esp-world.info/Articles\\_9/Stapa-ESPworld.htm](http://www.esp-world.info/Articles_9/Stapa-ESPworld.htm). (Retrieved 4 February 2009).

Sullivan, P. and Girginer, H. (2002) 'The Use of Discourse Analysis to Enhance ESP Teacher Knowledge: An Example Using Aviation English', *English for Specific Purposes*, 21, 397-404.

## APPENDIX 1: Differences in the Students' and Lecturers' Perceptions

Skill	Sub-skills		N	M	SD	F and p
Writing	1. I have difficulty in spelling correctly.	Students	610	2.45	.776	F= 5.065 P=0.02
		English lecturers	36	<b>2.86</b>	.683	
	2. I have difficulty in choosing suitable words.	Students	610	2.71	.702	F=.708 P=0.000
		English lecturers	36	3.33	.586	
	3. I have difficulty in writing grammatically correct sentences.	Students	609	2.80	.727	F=.007 P=0.000
		English lecturers	36	3.42	.604	
	4. I have difficulty in linking sentences in a paragraph.	Students	609	2.46	.709	F=2.820 P=0.000
		English lecturers	36	3.06	.715	
	5. I have difficulty in combining paragraphs in an essay	Students	608	2.48	.737	F=7.777 P=0.000
		English lecturers	36	3.06	.674	
	6. I have difficulty in developing and organizing my writing.	Students	595	2.61	.715	F=.859 P=0.000
		English lecturers	36	3.08	.732	
	1. I have no confidence speaking in English.	Students	607	2.64	.826	F=2.567 P=0.000
		English lecturers	36	3.14	.723	
Speaking	2. I have difficulty in using appropriate body language.	Students	607	2.60	.711	F=.493 P=0.003
		English lecturers	36	2.86	.723	
	3. I have difficulty in speaking clearly and loudly.	Students	607	2.49	.729	F=10.474 P=0.000
		English lecturers	36	3.11	.622	
	4. I have difficulty in speaking fluently.	Students	608	2.79	.719	F=.029 P=0.000
		English lecturers	36	3.22	.681	
	5. I have difficulty in using grammatically correct language.	Students	606	2.78	.670	F=.123 P=0.000
		English lecturers	36	3.28	.566	
	6. I have difficulty in agreeing and disagreeing - challenging and commenting.	Students	607	2.60	.719	F=1.793 P=0.000
		English lecturers	36	3.19	.668	
	7. I have difficulty in making suggestions and in supporting my views.	Students	606	2.49	.708	F=.083 P=0.000
		English lecturers	36	3.11	.785	
	8. I have difficulty in participating in discussion.	Students	605	2.41	.717	1.126 P=0.003
		English lecturers	36	2.78	.681	
	9. I have difficulty in communicating with people.	Students	607	2.40	.753	6.149 P=0.000
	10. I have difficulty in using varied vocabulary and expressions.	Students	606	2.70	.684	
		English lecturers	36	3.25	.604	F=.715 P=0.000