

# ORAL COMMUNICATION APPREHENSION AND MUET SPEAKING PERFORMANCE OF ENGINEERING UNDERGRADUATES IN A TECHNICAL UNIVERSITY

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## ABSTRACT

*It is highly noted that employers expect our local university students to possess good oral communication skills when they enter job markets. Fear of speaking especially in the English language has been found to be a hindrance to most local graduates during their job – seeking ventures. This study attempts to identify the level of communication apprehension among the undergraduates of the Mechanical Engineering programme at UTeM. It also aims to determine if there is a possible correlation between the undergraduates' oral communication apprehension (OCA) level and their performance in the Malaysian University English Test Speaking (MUET) assessment. The study involved 50 third year Mechanical Engineering undergraduates. Data was gathered through the use of the Personal Report of Communication Apprehension (PRCA-24) developed by McCroskey (1984) while the undergraduates' MUET Speaking component scores were used as a measure of their English language speaking performance. Statistical Package for Social Sciences (SPSS) version 22 was used to analyse the data. Results indicate that the undergraduates had a higher level of communication apprehension in activity like public speaking in comparison to other communicative activities such as group discussions, meetings and interpersonal conversations, which they experienced a moderate level of communication apprehension. The findings also show that there is a negative correlation between the undergraduates' communication apprehension and their MUET Speaking scores. With these findings, it is compelling to determine what causes the students to experience communication apprehension and how classrooms can lower their communication apprehension level.*

**Keywords:** *oral communication apprehension, MUET, speaking performance, engineering undergraduates, technical university*

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## 1. INTRODUCTION

Despite the fact that the Malaysian education system provides a compulsory 11-13 years of English language learning in the formal classrooms, many students if not most, still lack the ability to speak the language competently without displaying any signs of speaking fears. These fears of speaking in the English language often hinder their performance at the tertiary level. This is more so as the medium of instruction in the Engineering programmes in the local universities are in English. When these students leave the universities to look for jobs, again the same problem arises during their job interviews. Mastery of the English language is utmost important nowadays. Competitions are very stiff and only the best graduates will be hired by the ever competing multinational

companies in the country. Thus being skillful in communicating in the English language is no longer a preference but rather a must for all Engineering undergraduates. Engineers are expected to excel in the workplace in every way which includes being able to effectively convey technical information and display acceptable social and communication skills in order to excel in the workplace (Hafizoah & Fatimah, 2010). Lack of communication skills among graduating engineers was discovered almost two decades ago where the Society for Manufacturing Engineers reported that there was a competency gap in the engineering education, and the one deemed one of the most prominent was the “lack of communication skills” (Sageev & Romanowski, 2001). Darling & Dannels (2003) claims that practising engineers maintained the importance of oral communication and formal presentations in their daily work.

Communication apprehension (CA) by definition is “the fear or anxiety associated with real or anticipated communication with others” (McCroskey, 1977). When faced with a situation that required an individual to communicate orally, he or she may experience a type of fear or anxiety. The levels of anxiety or fear people experience in form of CA differs. CA occurs in a variety of settings and often results in negative outcomes for both speakers and listeners. McCroskey (1984) further defines CA as more of a way an individual feels about communication and less about how they communicate. People who are highly communication apprehensive are those whose apprehension about taking part in discussions surpasses the anticipated benefits they feel they would derive in certain circumstances (McCroskey, 1970; Hassal, et al., 2013)

There are quite a number of researchers who have dvelved in the area of CA in the past decades. Wan Zumusni et al. (2010) discovered that the CA level among the final year Bachelor of Business Administration students was very high. The study reported that many of the respondents disliked participating in public speaking and claimed that they felt public speaking invoked fear and anxiety in them. In another study carried out much earlier, Shameem Rafik\_Galea and Siti Yasmin (2006) found that their respondents had high levels of CA due to their poor language proficiency. Researchers Rosnah and Siti Norfishah (2009) claimed that most of their respondents recorded high CA. Indra Devi and Farah (2008) conducted a study involving Electrical engineering students and found that the students had moderate CA levels. Noor Raha and Kaur (2010) discovered that majority of their respondents from an engineering programme suffered from a moderate level of CA.

Thaher (2005) claimed students showed a significant level of CA which negatively affected their language learning outcomes. Fareed and Imran (2014) in their study involving 334 engineering undergraduates in a university in Pakistan found that 66% of their respondents experienced an average level of OCA and 18% had a high level of OCA. Amogne and Yigzaw (2013) did a study on 76 maritime engineering students and it was revealed that the students had a moderate level of communication apprehension, which means they were generally apprehensive towards performing oral communication tasks. Rasakumaran and Indra Devi (2018) in their study involving 24 freshmen from the Faculty of Medicine agreed that the respondents experienced a moderate level of OCA and that pedagogical interventions could help in overcoming their OCA. Similar finding was reported by Pitt et al. (2000) where a sample of 113 industrial salespersons recruited from offices of a major European vehicle manufacturer in six countries

within Europe and Asia. The results showed that there was a small but significant effect of communication apprehension on the performance of salespersons.

This study, therefore, was carried out in an attempt to finding out if students had a CA level that could be correlated to their performance in the Malaysian University English Test Speaking (MUET) speaking assessment. Mechanical Engineering students at UTeM are being trained in their English communication skills so that they can compete in the job market when they graduate after their four years of studies. There are two English courses that the degree students will have to take throughout their studies which are Technical English and English for Professional Communication. As the students are trained to be well versed in their Engineering content subjects, equal emphasis is also given to their English communication skills. This is to ensure these future engineers will be effective workers in terms of knowledge and communication skills.

Thus, this study aims at examining the level of UTeM Mechanical Engineering students' oral communication apprehension and its correlation (if any) with their performance in their MUET speaking assessment. This study specifically intends to answer the following questions:

- a) What is the UTeM Mechanical Engineering students' level of communication apprehension?
- b) What relationship (if any) does exist among the UTeM Mechanical Engineering students' level of communication apprehension and their MUET speaking assessment score?

## **1.1 Objectives of the study**

The study aims to find out the level of oral communication apprehension among the Mechanical Engineering undergraduates of UTeM. It looks into the four specific communication contexts which these undergraduates often engage in namely group discussion, meeting, interpersonal communication and public speaking. It also aims to determine if the level of oral communication apprehension among the Mechanical Engineering undergraduates of UTeM has any impacts on their performance in the MUET Speaking assessment. Thus, the specific objectives of the study are as follows:

- a) To identify the level of oral communication apprehension among the Mechanical Engineering undergraduates of UTeM
- b) To determine if there exists a correlation between oral communication apprehension and the performance of the Mechanical Engineering undergraduates of UTeM in their MUET Speaking assessment

## **2. METHODOLOGY**

### **2.1 Participants**

The 50 participants selected for the study were all 3<sup>rd</sup> year students pursuing the Bachelor of Mechanical Engineering at Universiti Teknikal Malaysia Melaka (UTeM). All these participants

were in the same class attending the English for Professional Communication (EPC) subject. The EPC subject exposed and familiarised them to workplace matters such as job application documents, interview processes, meeting skills and oral presentations. The instructor for the group/subject was the researcher herself. The EPC classes ran for 14 weeks with 3 hours of classroom instruction every week. This group comprised both males and females who mostly possessed a medium level of English language proficiency.

Table 1 shows a breakdown of the undergraduates based on gender while table 2 shows the English language proficiency in terms of MUET bands.

**Table 1: Number and percentage of undergraduates based on gender**

|        | Frequency | Percent |
|--------|-----------|---------|
| MALE   | 33        | 66.0    |
| FEMALE | 17        | 34.0    |
| Total  | 50        | 100.0   |

**Table 2: Number and percentage of undergraduates' MUET band**

|        | Frequency | Percent |
|--------|-----------|---------|
| Band 2 | 1         | 2.0     |
| Band 3 | 40        | 80.0    |
| Band 4 | 9         | 18.0    |
| Total  | 50        | 100.0   |

## 2.2 Instruments/Procedures

The Personal Report of Communication (PRCA-24) questionnaire developed by McCroskey (1984) was used to measure the students' oral communication apprehension level. The questionnaire contains 24 items which are aimed at measuring students' level of apprehension while communicating in the English language in various situations. The instrument is most widely used in college classes and measures overall anxiety as well as anxiety in four communication contexts: interpersonal or dyadic, small group, meeting or large group and public speaking. The PRCA-24 questionnaire requires the participants to rate each item by using the scale based on the rubrics stated. The instrument states that the individual scores should range between 24 and 120. Individuals with scores below 55 are considered to have a low level of communication

apprehension. Those with scores between 55 and 83 are considered having a moderate level of communication apprehension while scores above 83 indicate a high level of communication apprehension.

The PRCA-24 questionnaire is highly preferred by many researchers for the measurement of communication apprehension as the instrument has high level reliability (Cronbach alpha=0.94). Beatty (1994) concurred that the instrument is preferred in gauging the communication apprehension level of individuals due to its alpha reliability to be between 0.93 and 0.95. Other researchers (Gardner, Milne, Stringer & Whitting, 2005; Francis & Miller, 2008; Vevea, Pearson, Child & Sendlak, 2009) agreed that the instrument has a high internal reliability of more than 0.90.

Another instrument used was the students' MUET speaking assessment score. The maximum score for the MUET Speaking assessment is 45. The MUET speaking assessment score was used to determine the relationship between the students' communication apprehension level and their speaking performance.

### 3. DATA ANALYSIS AND INTERPRETATION

#### 3.1 Measure of students' oral communication apprehension

Table 3 indicates the overall communication apprehension of the 50 students who completed the PRCA-24. The maximum score was 98 and the minimum was 40. The mean value of communication apprehension among them was 70.54 and standard deviation was 14.11.

**Table 3: Analysis of 50 students' Personal Report of Communication Apprehension**

|                |       |
|----------------|-------|
| Mean           | 70.54 |
| Std. Deviation | 14.11 |
| Minimum        | 40    |
| Maximum        | 98    |

Table 4 shows the details of PRCA scores of the students. The survey shows 32 students (64%) which is more than half of the total number of participants experience moderate level of communication apprehension. Only 8 students (16%) have low communication apprehension while 10 students (20 %) have high communication apprehension. It is pertinent to note that on the whole, 84% of the total respondents of this survey indicated that they are affected by problems of communication apprehension while communicating in the four types of settings such as group discussions, meetings, interpersonal communication and public speaking.

**Table 4: Communication Apprehension score of 50 students**

| CA level | Frequency | Percent |
|----------|-----------|---------|
| Low      | 8         | 16.0    |
| Moderate | 32        | 64.0    |
| High     | 10        | 20.0    |
| Total    | 50        | 100.0   |

Table 5 shows the 50 students' sub scores for four communication contexts which are group discussions, meetings, interpersonal communications and public speaking. The data reveals that the students were most apprehensive in public speaking situations for which they had a mean apprehension level of 20.68 with a standard deviation (SD) of 4.55. The meeting mean value was 17.84 with SD of 4.62 while interpersonal communication had a mean value of 17.36 with SD of 4.59. Students were least apprehensive in communicating in group discussions where the mean value was 14.64 with SD of 3.83. It is to be noted that scores for the four communication contexts can range from a low of 6 to a high of 30. Scores above 18 reflect some degree of apprehension on the students' part (McCroskey, 1984).

**Table 5: Descriptive statistics for students' level of communication apprehension in four contexts of communication**

| Contexts                                 | N  | Mean  | Std. Deviation |
|--|----|-------|----------------|
| Group Discussion                         | 50 | 14.64 | 3.83           |
| Meeting                                  | 50 | 17.84 | 4.62           |
| Interpersonal Communication              | 50 | 17.36 | 4.59           |
| Public Speaking                          | 50 | 20.68 | 4.55           |
| Overall Communication Apprehension level | 50 | 70.54 | 14.11          |

These findings agree with the findings in Pitt et al.'s (2010) study which claimed the public speaking having the highest level of communication apprehension, and an overall high apprehension among students. Similar results were also claimed by Charlesworth (2008) in that the highest level of oral communication apprehension was contributed by the public speaking task.

### **3.2 Correlation between oral communication apprehension and MUET Speaking assessment performance**

It is evident from Table 6 that OCA is negatively correlated with MUET Speaking assessment performance. Students' OCA and their MUET Speaking assessment performance were found to correlate at  $r = -.481$ ,  $p = .000$ . This indicates that there is a relation between students' OCA level and their performance in the MUET Speaking assessment. Hence, the negative correlation shown implies the higher the OCA level of the students, the lower their MUET Speaking assessment performance will be.

The findings of this study concur with the view that OCA affects graded classroom communication ie. language performance (Allen & Bourhis, 1996). Allen & Bourhis (ibid.) stated that a 'superb' speaker could be expected to be more than 8 times more likely to be low in CA than high in CA. However, Indra Devi and Feroz (2008) reported that they found university's students' oral communication performance were not affected by communication apprehension. Rojo-Laurilla (2007) also reported that there was no significant relationship between students' EFL communication apprehension and oral communication competence.

**Table 6: Correlation between OCA and MUET speaking assessment performance**

| Parameter        |                     | Overall CA level | Speaking Score |
|------------------|---------------------|------------------|----------------|
| Overall CA level | Pearson Correlation | 1                | -.481**        |
|                  | Sig. (2-tailed)     |                  | .000           |
|                  | N                   | 50               | 50             |
|                  | N                   | 50               | 50             |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

#### 4. CONCLUSION AND RECOMMENDATIONS

The results indicate the presence of CA among the Mechanical Engineering students albeit at a moderate level. English language instructors need to design their lessons in such a way which will lower the effect of communication apprehension in the students. With minimal communication apprehension, chances are great that our Engineering undergraduates will be able to upgrade their English communication skills. English language instructors are responsible in providing a non-threatening environment for a successful acquisition of the language. Fun speaking activities which do not inhibit learners' motivation and which encourage their active involvement in the speaking activities will definitely go a long way in churning out competent engineers who excel both in hard and soft skills. Higher learning institutions need to take into account of OCA effects on the Engineering students and devise their curriculum and syllabus which could counter its effects.

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