

Correlation between Level of Communication Apprehension and Development of Communication Skills in Engineering Students

Ms. Sunanda Patil (Shinde) and Dr. Tripti Karekatti

*Asst. Prof., Gharda Institute of Technology, Lavel, Maharashtra.

Asst. Prof., Department of English, Shivaji University, Kolhapur, Maharashtra.

Email: sunandagpatil@gmail.com

1

Abstract

This study examined the oral communication apprehension in English of 100 engineering students of an engineering college in Western Maharashtra. A set of questionnaire comprising the Personal Report of Communication Apprehension PRCA-24 (McCroskey, 1984) was administered to these English for Specific purpose (ESP) students. Results indicated that most of these engineering students (48%) perceived themselves to have high and only 9% perceived to have low communication apprehension while communicating in English. 43% students had moderate communication apprehension. It is also found that students are more apprehensive while giving oral presentation or public speech. While, in group discussion they have comparatively low apprehension. Therefore, it is needed to understand and study the reasons for students' level of apprehension in certain communicative situations. It is also essential to know the source/s which cause communication apprehension among ESP learners, especially, among engineering students.

Keywords: English for specific purposes; Oral communication apprehension; Engineering students; Communicative situations.

Introduction

Engineering graduates need to possess excellent soft and hard skills and a high level of confidence because they have to work in today's competitive and increasingly globalised job market. In the Indian context, English has become the main language used in many established and reputed engineering companies. Hence, to be highly proficient in English is a much needed

skill among engineering graduates. Furthermore, they have to prove themselves competent enough in oral and written communication skills to be accepted by professionalists. With a sound knowledge in engineering basics engineers are expected to give clear oral instructions and make effective oral and written presentations to engineering and non engineering audience. According to Accreditation Board of Engineering and Technology (ABET) and Indian Accreditation Council (IAC), engineering graduates must be competent in both written and spoken communication skills.

Research in the area of workplace communication suggests that it is important for professional engineers to demonstrate excellent soft competencies such as effective oral communication skills, understanding of ethics, teamwork and leadership, besides displaying their mastery in technical skills (Rainy, Turner and Dayton, 2005). Many researchers have worked on this issue and found that the significance of communication skills as one of the competencies highly needed in the engineering industry (Grant and Dickson, 2006). Another research by Sageev and Romanowski (2001) state that, “technical ideas and results are not useful until and unless they are communicated and discussed”. One more research carried by Lee (2003) in major engineering firms in Malaysia also supports the previous findings. Researcher got filled questionnaire from 312 employers to identify communication (for example effective presentations, interpersonal communication) as the most important skill attribute to be possessed by graduating engineers.

Venkatraman and Prema (2007) asserted that mastering English can positively influence their education achievement and future career. Patil, Nair and Codner (2008) identified industry’s perceptions of engineering graduates and reported that there was a competency gap between their expectations and graduates’ competencies at the workplace especially in generic professional attributes.

The Concept of Oral Communication Apprehension (CA)

One of the primary elements found to be associated with poor communication skills development is a phenomenon known as communication apprehension. McCrosky (1970) viewed

communication apprehension as a broadly based anxiety linked to oral communication. McCrosky (1982) redefined CA as “an individual’s level of fear or anxiety associated with either real or anticipated communication with another person or persons”. Communication apprehension can be defined simply as anxiety or fear of communicating in different situations. According to Berger, McCrosky and Baldwin (1984) “it is the way a person feels about communication not how they communicate”. Within this context, it is important to distinguish CA from other concepts similar in definition come across in the literature that includes reticence, shyness, unwilling to communicate, introversion, and anxiety (Berger et.al.1983; Henjum 1982; Leonard and Johnson 1998). Although some authors believe that each of these constructs represent different problems (Berger et al. 1983; Kelly 1982; McCroskey 1980a), the literature found communication problem within each construct. These problems include poor communication skills, fear and anxiety associated with oral communication and an inherited trait. This study is primarily concerned with oral communication apprehension. The fear or anxiety could be due to any of the following reasons: lack of practice, lack of proficiency in the target language and insecurity etc.

People with high level of proficiency in a language can also experience communication apprehension. Some people may be good at writing but they may have problems speaking in front of an audience. Some may be good at interpersonal communication, but may not feel comfortable making presentations and vice versa. According to McCrosky (1977) a lot of research has dealt with communication apprehension in terms of a personality traits, but more recently the idea of communication apprehension has expanded to include both trait and situation views. Whether a person is willing or not to communicate, either in a given instance or more generally, is a volitional choice which is cognitively processed. The personality of the individual may be a determining factor in the manner in which that choice is made and what that choice will be (McCroskey and Richmond, 1990, pp. 20-21).

Communication apprehension can be divided into oral communication apprehension and written apprehension. The term is also used specifically to refer to oral communication as measured by McCroskey's (1986) Personal Report of Communication Apprehension (PRCA). Writing apprehension (WA) refers to an avoidance of written tasks, a feeling of frustration and poor

performance when faced with a writing task and a fear of having one's writing read publicly and evaluated (Daly and Miller, 1975, Scott and Timmerman, 2005, Mabrito 1991).

Review of Literature

Research in foreign/second language learning found that learners' lack of proficiency in the language is the major contributor in their anxiety and apprehension (Horwitz et al., 1986). In fact, they argue that the most threatening aspect of foreign language learning is speaking in the target language. This is supported by data from a research study conducted by Rosnah Mustafa and Siti Norfishah Mohd Zain (2009) with 61 Malaysian ESL learners who enrolled in the English for Specific Purposes 1 (ESP1) course in University Malaysia Sarawak. They found that most of the students recorded high communication apprehension. Another research by Devi and Feroz Farah Shahnaz (2008) conducted on communication apprehension and communication competence of ESL electrical engineering students in a Public University in Malaysia showed similar findings that the students had moderate communication apprehension levels and moderate communicative competency in all communication contexts such as public, groups and communicating with friends.

Albert P'Rayan and Ramakrishna T. Shetty (2008) conducted a study of 120 students of Jeppiaar Engineering College, Chennai. The analysis of the PRCA scores and the results of the speaking tests revealed that majority of the students have high communication apprehension and around 60 per cent of them lack communication skills.

Noor Raha Mohd Radzuan and Sarjit K (2010) conducted a study of 193 final year chemical engineering students in University Malaysia Pahang. Results indicated that most of these engineering students (70.7%) perceived themselves to have moderate communication apprehension and only 10.7% had high communication apprehension in communicating in English.

Need of the Study

In this 21st century era, engineers are not only required to effectively convey technical information but they also need to have acceptable social, communication and interpersonal skills in order to perform best in the workplace. Regrettably, there is considerable evidence that shows an inadequacy among graduating engineers to meet these requirements. This was reported by the Society for Manufacturing Engineers which found that, among the top “competency gaps” in engineering education, the “lack of communication skills” was one of the most prominent (Sageev and Romanowski, 2001). This is really a fretful thing and we should be concerned about it as engineers play essential role in society. If they have been provided with or trained with some techniques/ tricks to reduce their communication apprehension they may perform well while speaking in English.

Background

The present study was carried out in an engineering college from Maharashtra, named Gharda Institute of Technology, which is a newly launched institute in Konkan region and affiliated to Mumbai University. The students admitted to various engineering departments in the college are from Mumbai and other parts of Maharashtra. The students have varying levels of proficiency in English. Students from Mumbai have better communication Skills than those who are from rural areas. Students from English medium and convent background can speak with a greater fluency, than the regional medium students. The later face many difficulties in speaking and so hesitate to speak in front of fluent speakers. All the students are well-motivated and have a desire to improve their communication abilities. It has been observed that they wish to attend soft skills programmes in which they get opportunities to improve their language skills. Developing communication skills and securing placement in a reputed company is their primary concern.

Realizing the need to improve the communication skills of engineering students, English syllabus of Mumbai University focuses on both oral and written forms of communication. In their second semester these engineering students have a subject entitled ‘Communication Skills’ which includes modules on communication theory; techniques to improve communication;

vocabulary, grammar and aptitude test; summarization and comprehension; basic official correspondence (Business letter writing); basic technical writing etc. 'Presentation and Communication Techniques' subject is prescribed in third semester which includes modules like business communication; advanced technical writing (report writing, technical paper writing, writing business proposals etc.); interpersonal skills; presentation skills; career skills (resume and cover letter writing, interview techniques); group discussion etc.

Students of this institute are found very apprehensive and anxious while giving public speeches, GD, and performing in other oral communicative situations.

Participants

The researcher selected one hundred students (from various branches) randomly from the selected college. When the participants were given information about the study, they willingly participated in the study. They are second year engineering students from both rural and urban background.

Data Collection Procedure

Instrument

The Personal Report of Communication Apprehension (PRCA-24), developed by McCroskey (1984), was used for the present study. It consists of 24 statements and aims to determine students' level of communication apprehension in various contexts. The PRCA-24 was selected because of its wide use and its effective reliability and validity values (Richmond, McCroskey, McCroskey, & Fayer, 2008; Byrne, Flood, & Shanahan, 2009 & Finn, Sawyer, & Schrodt, 2009). This instrument records participants' feelings for communication in four different communicative situations: Group Discussion, Meetings, Conversations and Public Speaking. However, in the present study one situation, meeting was replaced with 'debate' as these engineering students are more familiar and experienced with debate. The participants rated each statement by using the scale based on the rubrics stated. According to this instrument, scores can range between 24 and 120. Scores of 24 – 50

represent students who have a low level of communication apprehension; scores of 51 – 70 represent people with moderate CA and scores of 71 – 120 represent people who have high levels of CA. To determine the overall CA score, all four sub scores are added together.

Findings and Discussion

Figure 1 indicates the overall communication apprehension of the 100 students who completed the PRCA-24. The highest was 93 and lowest 30. The mean value of communication apprehension among them was 69.32 and standard deviation was 12.79.

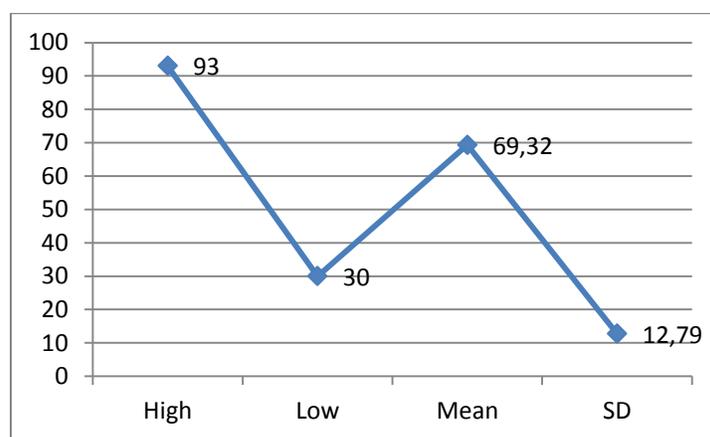


Figure 1. Analysis of 100 students' Personal Report of Communication Apprehension

Figure 2 shows the details of PRCA scores of the selected samples. Only nine out of hundred students (9%) have low communication apprehension. Forty two students (42%) have medium level of communication apprehension and forty nine (49%) have high communication apprehension. It reflects that almost half of the same group has high communication apprehension.

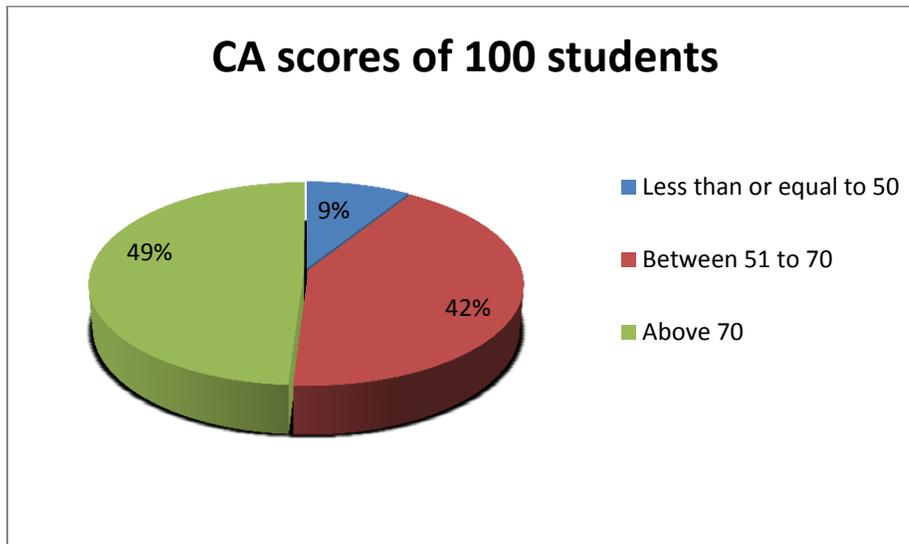


Figure 2. Communication Apprehension score of 100 students

Figure 3 indicates high and low score, mean value, and standard deviation of four communicative situations. High score of GD, debate, conversation, and public speech is twenty two, twenty three, twenty seven, and twenty nine respectively. Compared to all the other situations high score of GD is less. Low score of GD, debate, conversation, and public speech is four, four, six, and ten respectively. The findings show that the Public Speaking score data revealed high communication apprehension for a majority of the respondents. GD and Debate score data revealed that most respondents experienced low communication apprehension in both communicative situations. It indicates that students need more training or practice in public speaking.

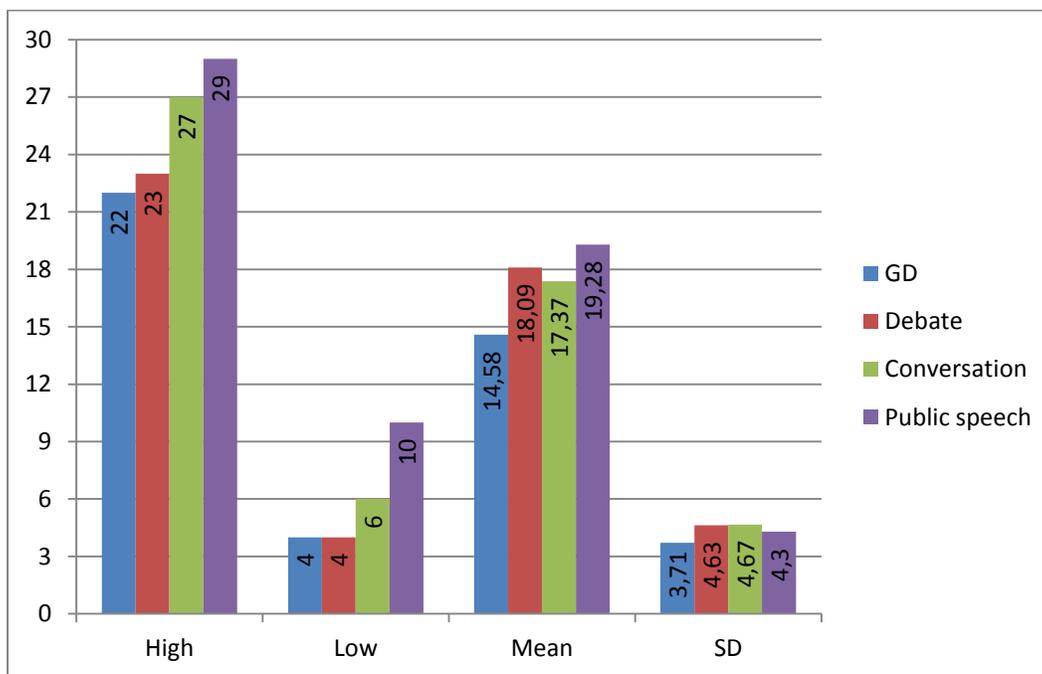


Figure 3. High, low, mean value of four communicative situations

To make comparison of the students' PRCA-24 score in the area of public speaking with their actual performance, the students were given a task of extempore and prepared speeches. In extempore speech topic was given them five minutes before and asked to give speech on the spot. In prepared speeches they were given a choice to select a topic in advance and prepare a speech for three to four minutes. Marks were awarded based on following criteria: confidence level, effective communication, appropriate body language, ability to handle questions etc. The students were also asked at the end of their speeches how they felt before and while giving their speech.

Sixty percent of the students scored less than fifty percent and they accounted their poor performance to lack of practice, exposure and suitable ambiance. Thirty eight percent of the students said that it was their first attempt to speak in front of an audience in English. Remaining two percent students asserted that it was a good task and as they have been giving speeches and participating in various competitions it was easy task to them.

Measures to Eradicate Communication Apprehension

The most obvious effects of communication apprehension are internal discomfort, avoidance or withdrawal from communication situations. Students experience communication apprehension internally. The experience of communication apprehension is a mental one – it is felt psychologically. Thus, while some students may experience communication apprehension to greater or lesser degrees than other students or only with certain people or in certain situations, the one thing that students all share when they are anxious about communicating is an internally experienced feeling of discomfort. It is not always possible for a student to avoid communication. Sometimes there is no reason to expect a situation to cause discomfort, so a student may enter it with her or his psychological guard down. When situations such as these arise, withdrawal is the typical response for the student who is experiencing communication apprehension. Withdrawal may take the form of total silence or partial talking – especially when absolutely necessary. An example of possible withdrawal is the student who speaks in the class only when directly called on by the teacher. Another is when a person in a one-on-one interaction only answers questions and gives responses but never initiates conversation. When unable to avoid a communication situation, the communication-apprehensive person usually will, if possible, withdraw from interaction.

Subjects of the present research were asked about the symptoms of speech apprehension they experience and they reported: “I tremble or shake and sweat profusely”, “My hands especially begin to feel moist”, “My heart rate begins to quicken and my mouth become dry”, “My mind begins to “race”, “My thoughts become jumbled, and I have great difficulty putting my thoughts into any coherent order”. Some students reported that they feel a little comfortable in GD as their friends also take part in discussion but they face apprehension while performing on their own in an activity like public speech. Some said that even after practicing in front of a mirror it becomes difficult for them to face an audience.

Ways to overcome apprehension in oral communication are: be aware about your communication apprehension, prepare in advance, practice breathing and relaxing, get support, talk to your teacher, a friend, another student in the class, a counselor, etc., think positive thoughts, know

your topic, know your audience, know yourself, know your speech, focus on your message not yourself, recognize your value and uniqueness.

Conclusion

To conclude, engineering students must spend more time on formal oral communication in English to enhance their mastery in the target language. Findings of this study reported that public speaking or giving formal oral presentations caused high apprehension among majority of the engineering students. Therefore, syllabus designers of communication skills for engineering students should not only include but also stress on oral presentations. Opportunities to practice giving presentations inside and outside the classroom are crucial for engineering students' future employment success. In addition, students need to practice receiving more feedback from their course instructors. Moreover, suggestions from friends, and parents would undoubtedly benefit the students. After all, these skills are important as engineers' job specifications require engineers to communicate their ideas clearly to clients, colleagues and management.

This study reveals the levels of oral communication apprehension in English among engineering students of Gharda Institute of Technology, Lavel (Dist-Ratnagiri) Maharashtra. The result shows that 48% students have high oral communication apprehension, 43% students have moderate oral communication apprehension and only 9% students belong to the low apprehensive group. It is also found that students are more apprehensive while giving oral presentation or public speech. Therefore, it is essential for engineering students to have sufficient practice of individual oral presentations. In order to develop such skill, teachers must promote the development of metacognitive skills to help students recognize the strengths and weaknesses in their public speaking skills. One way to promote the development of metacognitive skills is to engage students in self-assessment, which strengthens commitment for competent performance, enhances higher order thinking skills, and fosters self-agency and authority (Marienau, 1999).

Teachers can alleviate fear of public speaking by helping the speaker replace irrational thoughts about public speaking with more rational, realistic thoughts. Once the speaker has identified the source of anxiety in public speaking, negative thoughts must be converted into positive. For

example, "I can't do this," "Everyone is looking at me," or "I'm afraid I'll forget my speech," should be replaced with positive thoughts like "Lots of people feel as nervous as I do when giving a speech--it's normal!"

Another successful method for overcoming speech anxiety is visualization. This method of overcoming the fear of public speaking involves creating a successful image of the public speaking experience and recalling that image while delivering the speech. If you enter a speaking situation imagining that your audience will be hostile or uninterested in your topic, chances are that your behaviors may reinforce that expectation. Rather than speaking with enthusiasm about your topic, your voice and facial expressions will likely communicate a lack of enthusiasm and dislike for the topic or the audience. Instead, try to imagine yourself delivering a speech, and that the response you receive from the audience is supportive and friendly—they are actually eager to hear what you have to say. If you foresee yourself as being successful, your audience will also perceive you positively, and you will appear to be knowledgeable and excited about your topic. When you can imagine a positive experience, you are on your way to achieving that goal. The key to effective visualization is picturing yourself as a confident, successful speaker.

Moreover, knowledge of language learning strategies such as memory, cognitive, metacognitive, compensation, affective, social can be useful in developing language fluency and eradicating fear in various communicative situations.

References

- Albert P'Rayan and Ramakrishna T. Shetty .2008. Developing Engineering Students' Communication Skills by Reducing their Communication Apprehension. *English for Specific Purposes World*, issue 4 (20), Volume 7.
- Berger BA, Baldwin HJ, McCroskey JC, Richmond VP. 1983. Communication apprehension in pharmacy students: A National Study. *American Journal of Pharmaceutical Education*, 47, 95-102.
- Berger, McCroskey & Baldwin (1984). Reducing Communication Apprehension: Is there a Better Way? *American Journal of Pharmaceutical Education*, 48, Spring (1984) Retrieved from www.jamesmccroskey.com/publications/117.pdf
- Daly John A & Miller Michael D (1975) Apprehension of Writing as a Predictor of Message Intensity. *The Journal of Psychology*, 1975, 89, 175-177.
- Devi, S. I., & Feroz Farah Shahnaz (2008). Oral communication apprehension and communicative competence among electrical engineering undergraduate in UTeM. *Journal of Human Capital Development*, 1(1), 1-10.
- Grant, C. D., & Dickson, B. R. (2006). Personal skills in Chemical Engineering Graduates: The development of skills within degree programmes to meet the needs of employers. *Education for Chemical Engineers*, 1, 23-29.
- Henjum. 1982. A. Introversion: A misunderstood "individual difference" among students. *Education*, 103(1):39- 43.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132.

- Kelly L. A 1982. rose by any other name is still a rose: A comparative analysis of reticence, communication apprehension, unwillingness to communicate, and shyness. *Human Communication Research*, , 8(2): 99-113.
- Lee, F. T. (2003, 6-9 July 2003). *Identifying essential learning skills in students' Engineering education*. Paper presented at the 26th HERDSA Annual Conference, Christchurch, New zealand.
- Leonard TC, Johnson JY. 1998. The reticent student: Implications for nurse educators. *Research Briefs*, 37(5): 213-215.
- Mabrito, Mark (1991) Electronic Mail as a Vehicle for Peer Response. *Written Communication*, Vol. 8 No. 4, October 1991 509-532.
- McCroskey JC. 1976. Anderson JF. The relationship between communication apprehension and academic achievement among college students. *Human Communication research*, , 3: 73-81.
- McCroskey JC. 1980. On communication competence and communication apprehension: A response to Page *Communication education*, 29, 109-111.
- McCroskey JC. 1980. Quiet children in the classroom: On helping not hurting. *Communication education*, , 29, 239-244.
- McCroskey JC. 1984. *The communication apprehension perspective*. Beverly Hills,CA: Sage Publications.
- McCroskey JC.1977. Oral communication apprehension: A summary of recent theory and research. *Human Communication research*, 78-96.
- Marienau, C. (1999). Self-assessment at work: Outcomes of adult learners' reflections on practice. *Adult Education Quarterly*, 49, 135-147.

- Noor Raha Mohd Radzuan and Sarjit Kaur 2010. A Survey of Oral Communication Apprehension in English among ESP Learners in an Engineering Course. *English for Specific Purposes World*, Issue 31 Volume 10.
- Patil, A., Nair, C. S., & Codner, G. (2008, 7 - 10 December 2008). *Global Accreditation for the Global Engineering Attributes: A Way Forward* Paper presented at the 19th Annual Conference of the Australasian Association for Engineering Education: Yeppoon.
- Rainey, K. T., Turner, R. K., & Dayton, D. (2005, 10-13 July 2005). *Do curricula in technical communication jibe with managerial expectations? A report about core competencies*. Paper presented at the IEEE International Professional Communication Conference Proceedings, Limerick, Ireland. research. *Human Communication Research*, 4(1), 78-96.
- Richmond, V. P., McCroskey, J. C., McCroskey, L. L., & Fayer, J. M. 2008. Communication Traits in First and Second Languages: Puerto Rico. *Journal of Intercultural Communication Research*, 37(2), 65-73.
- Sageev, P., & Romanowski, C. J. (2001). A message from recent engineering graduates in the workplace: Results of a survey on technical communication skills. *Journal of Engineering Education*, 685-693.
- Scott & Timmeman (2005) Relating Computer, Communication, and Computer-Mediated Communication Apprehensions to New Communication Technology Use in the Workplace. *Communication Research*, Vol. 32 No. 6, December 2005 683-725.
- Venkatraman, G., & P.Prema. 2007. English language skills for engineering students: A needs survey. *ESP World*, 3(16).