

## **CHAPTER FIVE**

### **RECOMMENDATIONS AND CONCLUSIONS**

#### **Summary of Findings**

This study was carried out with the aim of knowing what English language skills the engineers and the engineering managers require and to provide input for an ESP programme for the engineering students. Also this study hopes to identify the present and future needs of the engineering students for the English language and to identify the English language needs that prospective employers expect from engineering students when they graduate.

In the language skills, most of the engineers and engineering managers responded that they often used all the four language skills (listening, speaking, reading, writing) at the workplace. Especially, the groups said that they always used listening and speaking skills. (see Tables 4 & 5)

Looking at the details of listening skill and sub-skill (see Tables 6 & 7), both the engineers and engineering managers said that they used English listening skill most frequently with their superiors. This result indicates that most of management people speak in English when they talk to their subordinates in this multi-national company. In listening sub-skills (see Tables 8 & 9), English is being more widely used among engineers than engineering managers in most cases at meetings, training, telephone conversation, and instructions etc.. This is partly because engineering managers more often need to deal with operators and technicians who cannot speak English well.

According to Tables 10 and 11, the survey result for the speaking skill of engineers and engineering managers is almost same as listening skill. Both groups used English

speaking skill frequently with their superiors. This result shows that English speaking skill is very important to communicate with their superiors in this kind of multi-national company. One reason might be that many of them come from different countries and have different mother tongues. In speaking sub-skills (see Tables 12 & 13), most of engineers said that they always used English at meetings when speaking about new engineering information and their projects. However, engineering managers said that they always used English at presentations. According to the general manager of the company, English is an official language at presentations and at managerial meetings in this multi-national company. That is why most of engineers and engineering managers responded that they always used English at presentation and meetings.

In the case of reading skill (see Tables 14 & 15), most of participants said that they were always reading technical documents written in English. Comparing engineers and engineering managers, managers slightly more often used their reading skill than engineers in business letters, technical reports, business documents and in-house correspondence. The reason might be that engineering managers meet other businessmen and send letters in English often.

In writing skill and sub-skills, most of the engineers and engineering managers said that they used English language writing skill always in E-mail, form-filling, in-house correspondence, business letters, technical reports, and drafting manuals (see Tables 16 & 17). It can be recognized that writing is often needed at the workplace because the writing skill is highly required in E-mail as well as technical reports. Lately writing skill became more important especially due to E-mail communication. According to the general manager of the company, E-mail communication has been highly encouraged to all staff to share more information in real time, and furthermore to create a paperless office. Comparing engineers and engineering managers in writing sub-skills, engineers are more often writing than managers at meetings because most of the meetings are held by

managers. During the meeting, usually managers presented and engineers took notes. Also the other results are same as that engineers are more often writing than engineering managers.

About proficiency in English, both of the participant groups responded that their English proficiency was above average level. Comparing engineers and managers, engineers have more confidence than managers in using English. But still they said they needed to improve their English to ensure it is grammatically correct. In the case of the managers, they mentioned that they did not have a chance to learn ESP English at the workplace.

In the importance of a good command of English (see Tables 22 & 23), most of the participants responded overwhelmingly that a good command of English is crucial for them to do their job well, to advance their careers and also to contribute to the company's growth. This is mainly due to the environment as well as international communication. Especially, most of the engineers said that English was very important for career advancement. However, a few managers said that English is important for career advancement, doing the job well and company's growth probably because they have already got high positions.

In personal impressions, most of the engineers and engineering managers said that they did not have any provision for improving English. They said they needed English classes and many kinds of English books for improving their English. The reason is that they had inadequate English language proficiency as they preferred to use their mother tongue during communication with others. They also said that when they presented technical reports, gave information and messages, they wanted to speak fluently and write concisely and correctly. Furthermore, they wanted to improve speaking and writing skills which are grammatically and structurally correct at the workplace. But some of the participants said that there was an English class every week and training courses which helped to improve their English, but most of them said that they are not enough.

In a question about improving their English language skills until now, a majority of engineers and managers said that they were not impressed by English language skills of new applicants. And a small number of them answered that they were somewhat impressed in their communication. Both of them said that they had poor command of language and as a result they had lack of confidence in communication. Also sometimes they could not express their ideas well and therefore their communications were often stuck. They also said that they had problems of writing skill as well as speaking skill. So they wanted to write reports and prepare presentation materials which are grammatically and structually correct.

Finally, in their opinion of a good command of English in order to carry out their practical training/ job well, both of groups answered that they should be able to express their thoughts and ideas in English. And also they should have a good command of speaking skills so as to 'encourage the exchange of information and ideas' and to ' have good presentation and negotiation skills' at meetings. Both engineers and managers needed to improve speaking and writing skills mostly in their real job situations.

#### Limitations of the study

This study is based on the needs analysis made of a small representative sample of engineers and engineering managers. A study of a bigger sample was not feasible as the management was not keen in having too many interruptions to the services they were providing. The researcher felt that as this was a preliminary piece of research it would serve the researcher's present purpose. Furthermore, the management had reported that communication difficulties were faced comparatively high by the engineers / engineering managers and not the other categories of staff.

### Recommendations for Further Study

As a result of the findings of this study, the researcher would like to make the following recommendations for further study.

- (1) Syllabus planners of English programmes in Engineering should consider conducting needs analysis before preparing syllabuses for engineers / engineering managers.
- (2) The ESP English programme should be reviewed in order to include, at least, some of the findings of this study.
- (3) The instruments of data collection may influence the results, therefore, further study should be investigated using multiple instruments.
- (4) For gaining the reliability and validity of the results from the study, further research should be expanded on the sample size and observational period.

### Pedagogical implications of the study

From the result, this study has a number of pedagogical implications. One of the findings that the attention should be paid to is that, although they have learned most of English skills, many engineers need to improve their writing and speaking skill as compared to listening and reading skills. This result is so much related to the living environment and English education in university. So one of the implications that can be drawn from the findings is that engineering students need not only to study all kinds of English skills, but also must be exposed to the environment in which English is being widely used. In Malaysia the engineering students have been exposed to reading and listening enviroment, during their engineering study and normal life. For example, they

read many engineering books mostly written in English and attend lectures in which English is mainly used.

Well-designed ESP programmes can complement their limited exposure to speaking and writing of English, and furthermore shorten the time needed for them to command good English. The ESP course developed for engineering students should focus on acquiring the four language skills with more emphasis on speaking and writing. The course content could include many different types of topics such as telephone skills, oral communication skills, meeting chairing, interview, presentation, business letters, memos, report and resume writing skills.

And teaching methodology should provide students with adequate practice to familiarize them with the demands of working environments. Activities like role-play, simulation and case study would induce students into real working situations. These activities would draw active participation from the students, too.

Although the survey shows that the productive skills of speaking and writing are more highly demanded from the engineers, teachers of ESP should not overlook the receptive skills of listening and reading. The reason is why these skills are required at workplace almost equally as speaking and writing skills.