

CHAPTER 4: ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

This chapter has two major sections, 4.2 and 4.3. In Section 4.2, the data obtained through the questionnaire is analysed and discussed in detail. The data is also presented in tabular form. The analysis corresponds to the order of the questions in the questionnaire. I draw upon my experience as a lecturer at the institution concerned and my familiarity with the students to venture probable reasons for the distribution of the data. In Section 4.3, the information gleaned from the interviews with five lecturers from the Department of Aircraft Maintenance Technology is discussed in detail. In Section 4.4, the feedback from the students is compared to the views of the lecturers to explain any conflicting opinions that arise.

4.2 Questionnaires: Students' Responses

The data obtained from the questionnaires administered to the students is discussed in the following sub-sections.

4.2.1 Background of Respondents

The sample group of 100 students is made up of 94 male students and 6 female students. This is because the students of the Diploma in Aircraft Maintenance Technology course are predominantly males. The majority of the students are in the fifth and sixth semesters of the seven-semester course. 60 of them are in semester 6, 21 in semester 5, six are in their 4th semester, 11 in semester 3 and two are 2nd semester students. None of the respondents are first semester students. All of them are familiar with the programme and have done at least one stint of on-job training.

4.2.2 Status of English

24 of the students surveyed have indicated that English is their first language. This is almost a quarter of the sample. These are probably students from urban areas whose parents

were educated in English medium schools. English medium education in Malaysia is discussed in Section 4.5 of this chapter. They could also be children of mixed parentage, i.e. students whose parents are from different ethnic groups. Since the parents would not understand each other's mother tongue, those who have attended English medium schools adopt English as the common language, making English their first language. There are a fair number of students of mixed parentage in the college. The 13 students who speak other languages as their first language are probably foreign students as the college has foreign students from Sri Lanka, India and Bangladesh.

<i>First language</i>	Malay	Chinese	Tamil	English	Others
<i>Number</i>	17	18	28	24	13

Table 1 – Students' first language

Language used Place	Malay	Chinese	Tamil	English	Others
Home	18	12	35	16	12
College	10	5	3	76	0
Classroom	4	3	0	82	1
With friends	18	9	22	36	4

Table 2 – Language used for communication in different places

From Table 2, it can be seen that 82 students use English for communication in the classroom while seven others use Malay and Chinese. The 10 students who did not respond to the question are probably reluctant to confess that they used other languages in the classroom. The language used for communication in college refers to the language used outside the classroom in informal conversations within the college premises. 76 students use English for this purpose too. Therefore, the analysis of the questionnaires depicts that the majority of the students converse in English while in the college premises. However,

being a lecturer in the college and having had the privilege of observing the students, I must concede that the information does appear to be misleading. From my observation of students at the college cafeteria and other informal settings, I have noticed that a large number resort to using their mother tongue within their own ethnic group. Even in class, I have had on many occasions to remind students to converse only in English. Therefore, I feel that the students have not really been honest in their responses to this question. Perhaps they are afraid to confess that they use their mother tongue most of the time in informal conversation.

4.2.2.1 Language Spoken at Home

Most of the students have indicated that they speak in their mother tongue at home. This is understandable as their parents may not be conversant in English. Moreover many parents feel that they should use their own language at home to preserve their ethnic identity and culture. There does seem to be a discrepancy in the analysis. While 24 students have indicated that English is their first language, only 16 students have responded that they use English at home. This could be due to the students having misunderstood the term 'first language'. The 16 students who use English probably come from homes where both parents are more comfortable speaking in English.

The number of students who use Malay at home and also to communicate with friends are the same, that is 18 students. This indicates that these students use Malay most of the time. It could be that their friends are mostly from the same linguistic group. The number of students who converse in English with their friends is 36 as opposed to 16 who use the language at home. The additional 20 students appear to be from those who use Tamil or Chinese at home.

The table below shows how the students rated their ability in the four basic language skills of listening, speaking, reading and writing.

	<i>Poor</i>	<i>Below Average</i>	<i>Average</i>	<i>Good</i>	<i>Excellent</i>
Listening	2	2	19	53	24
Speaking	4	0	47	43	6
Reading	2	3	24	49	22
Writing	3	3	38	47	9

Table 3 – Students’ language skills

4.2.2.2 Self-rating of English Proficiency

The majority of the students have rated their ability in the four language skills as ‘average’, ‘good’ or ‘excellent’. The students have the least problem with listening where a mere 4 students have rated themselves as ‘below average’ or ‘poor’. 77 of them consider their ability to understand spoken English as ‘good’ or ‘excellent’. The students are taught English as a subject throughout their 11 years in school. They watch a lot of English programmes on television and also go to see English movies. Students thus receive a lot of exposure to spoken English which helps improve their comprehension skills. However they do not get as much opportunity to speak in English. They are also inhibited by the fear of being laughed at when they make mistakes. In this respect, students from the bigger towns have more opportunities to speak in English compared to their rural counterparts. Only a very small number consider themselves to be ‘very poor’ in all four areas. Students seem to face the most difficulty in speaking and writing. 47 rate their ability to speak in English as ‘average’ and 4 consider their speaking skills ‘poor’. Only 6 feel that they are ‘excellent’ in speaking. As for writing, 38 consider their writing skills as ‘average’ while 9 feel that they have excellent writing skills. The students appear to have little difficulty in listening and reading as evident from the fact that more than 70 per cent of those surveyed rate their abilities as ‘good’ or ‘excellent’. 79 students rate their listening skills as ‘good’ or ‘excellent’ while 71 grade themselves similarly in their reading skills. However in

interviews with the lecturers (as detailed in Section 4.5 of this chapter), the lecturers say that they try to express the subject matter as simply as possible to facilitate understanding. Therefore, the students finding that they are able to understand what they hear and read easily may be due more to the efforts of their lecturers to aid understanding than to their proficiency in English. Moreover the students may have rated their reading and writing skills merely on their ability to understand and answer examination questions, class exercises and assessments. However these are based on material from lecture notes and textbooks with which they are already familiar. Moreover, the lecturers have said that they take efforts to provide explanations and notes using simple language. Therefore the students' confidence in their competence in the English language skills may be misplaced. The analysis of the data indicates that while the majority of students feel that they have little difficulty understanding spoken and written English, they do find it difficult to express themselves in English both orally and in writing.

4.2.2.3 Use of English in the Classroom

	<i>Very important</i>	<i>Important</i>	<i>Not important</i>
Understanding lectures	90	7	3
Asking questions in class	58	38	4
Answering questions in class	56	40	4
Participating in tutorials	59	33	8
Understanding and answering examination questions	82	13	5
Understanding instructions in manuals	79	17	4
Understanding reference material	64	31	5

Table 4 - Importance of English in Teaching and Learning

On the importance of English in the teaching and learning process, 90 per cent of the respondents feel that it is very important whereas only 3 students feel that it is not

important. However, only 58, 56 and 59 students opine that English is very important for asking questions in class, answering questions and participating in tutorials respectively. However, an average of 5 per cent feel that it is not important. The rest feel that it is important. This is illustrated in the table above.

Almost all the students and the four lecturers interviewed believe that English is indispensable in the teaching-learning process of this course. However there are a small number of students who have responded that English is not important. This is difficult to fathom as the medium of instruction for this course is English and all textbooks and reference material are also in English. I believe that these students are suffering from the 'denial syndrome', i.e. they refuse to admit or accept their inadequacies in English and attempt to camouflage their weakness by deceiving themselves that English is not important. It is improbable that lecturers allow questions in Bahasa Malaysia because three of the lecturers teaching the course are expatriates who do not speak the language and the others are retired Air Force personnel who were educated in English medium schools and are not fluent in the national language. Another plausible inference could be that these students seldom ask questions in class.

82 students responded that English is very important for understanding and answering examination questions. From the table above, it is also evident that a large majority of students find that English is very important understanding instructions in manuals and for understanding reference texts. Therefore, English is of utmost importance for effective learning both in and outside the classroom.

4.2.2.4 Use of English during On Job Training

As shown in Table 5 below, English is used very frequently at the workplace for reading instruction manuals, memos and letters and for writing log books and reports – more than 50 % of students surveyed have indicated that the language is very important for these

purposes. The small number who responded that they never use English for these purposes probably do not refer to the aircraft manuals or read the other documents as these are all in English. These students may not be able to complete the course successfully. Even if they do, they would probably find it difficult to procure a job in the aircraft maintenance industry. About 80 % of the students use the language often or very often for oral communication during their OJT. Only a very small number have responded that they never use English. These are probably students who are extremely poor in English. It should be noted that none of the students have responded that they never use English in their communication with their superiors. 41 students have indicated that they use English ‘very often’ and 31 students find that they use the language ‘often’ for this purpose. It could be inferred that the superiors communicate with their subordinates in English at all times.

	<i>Very often</i>	<i>Often</i>	<i>Sometimes</i>	<i>Never</i>
Oral communication with superiors	41	37	21	-
Oral communications with co-workers	28	44	21	2
Giving work instructions	32	35	24	4
Reading instructions in aircraft manuals	58	22	14	2
Writing log book, reports, etc.	56	21	13	6
Reading memos, letters, notices etc.	53	22	19	2
Attending and participating in meetings	46	31	16	3

Table 5 – Frequency of students’ use of English during on-job training

Table 6 shows the students’ perception of the importance of English for specific tasks during their OJT. Practically all the students find that English is important to perform their OJT. The majority, in fact, feel that it is very important. More than 70 students think that English is very important for understanding oral instructions, instruction manuals and instructions on job sheets, and for writing log books and reports.

It is significant that 80 students find that English is very important in understanding oral instructions during OJT. This corresponds to the earlier finding that English is used very often or often in communicating with superiors. While only 59 students feel that it is very important for communicating orally with co-workers, none feel that it is not important. There would be more flexibility within workers of similar rank and they feel more at liberty to use other languages occasionally. While other languages may be used to communicate with their co-workers, the ability to converse in English is an indispensable skill to aircraft maintenance personnel.

	<i>Very important</i>	<i>Important</i>	<i>Not important</i>
Understanding oral instructions.	80	15	0
Communicating orally with co-workers	59	36	0
Understanding instruction manuals	78	17	0
Understanding instructions or job sheets	72	21	2
Reading memos, letters, notices and other documents	61	33	1
Writing log book, reports, etc	73	21	1
Reading reference texts	64	30	1

Table 6 – Importance of English during on-job training

As for the frequency of the use of English for various tasks, the data in Table 7 shows that the respondents were most often required to use English for reading instructions in aircraft manuals and reading instructions on job sheets. The interviews with the lecturers revealed that all aircraft maintenance manuals are entirely in English. 58 students say they used English for these purposes. English was also used very often for listening to oral instructions, referring to reference texts, reading memos and letters, and for recording work done in their log books. 39 of the respondents did not answer the question on using English for writing other documents while 10 say they were never required to use English to write

other documents. This could be because aircraft technicians are not often required to write documents other than to record work done in their log books. An insignificant number of respondents have responded that they never use English. It is highly improbable as there is ample evidence to show that English is very important in aircraft maintenance engineering.

	<i>Very often</i>	<i>Often</i>	<i>Sometimes</i>	<i>Never</i>
Listening to oral instructions	52	35	8	1
Communicating with superiors and co-workers	39	45	11	1
Reading instructions in aircraft manuals	58	24	12	2
Referring to other reference texts	48	33	13	2
Reading instructions on job sheets	58	27	8	4
Reading memos, notices, letters, etc.	51	29	15	1
Recording work in log book	50	32	12	2
Writing other documents	30	11	10	10

Table 7 – Frequency of use of English required during on-job training

4.2.3 Students’ Perceived English Language Needs

	<i>A lot of difficulty</i>	<i>Some Difficulty</i>	<i>Very little difficulty</i>	<i>No difficulty</i>
Understanding the subject matter during lectures	2	32	34	31
Understanding spoken instructions.	1	25	39	35
Understanding a different accent	6	35	38	15
Understanding sentences spoken quickly.	2	31	38	29
Understanding technical terms	2	27	42	29

Table 8 – Degree of difficulty in understanding spoken English

From Table 8, it can be seen that the students’ ability to understand lectures corresponds to their rating of their listening abilities as shown in Table 3. More than 50 % of the sample feel that they have very little or no difficulty understanding spoken English.

Many of the students doing the Diploma in Aircraft Maintenance Engineering are from the urban areas in Malaysia where English is frequently used in everyday communication. Those who face difficulty could be students from the rural areas where they have had minimal exposure to the language. Only an insignificant number face a lot of difficulty in understanding spoken English.

Being an English lecturer in the same college, I have learnt from informal conversations with students that they find it difficult to understand English spoken by the expatriate lecturers because of their Indian accent. Although the students' proficiency in English is wanting, they are able to comprehend English as spoken by most Malaysians. I am acquainted with some of the expatriate lecturers in the Department of Aircraft Maintenance Technology whose thick South Indian accent can be quite difficult to understand at times for those unfamiliar it. This probably is the reason for the problem faced by the students.

	<i>A lot of difficulty</i>	<i>Some Difficulty</i>	<i>Very little difficulty</i>	<i>No difficulty</i>
Answering questions in class	3	30	38	29
Asking questions in class	1	30	40	29
Voicing your opinion in class	5	32	32	30
Disagreeing with points raised by others	4	25	45	26
Seeking clarification	3	27	43	26
Communicating with fellow students	3	12	32	35
Communicating with co-workers during On Job Training	3	23	38	34
Making an oral presentation	10	27	34	28

Table 9 – Degree of difficulty in speaking in English

To the question on difficulties faced in speaking in English, the analysis of the responses to which are shown in Table 9, the most formidable task is making an oral

presentation where 10 students have said that they face a lot of difficulty. This is understandable as public speaking is an entirely different proposition and can be a daunting task. Making an effective oral presentation entails more than good language skills. The students have to develop their self-confidence to speak in front of a group and have to learn to manage stage fright. More than half of the students in the survey do not face much difficulty communicating in English. The reason that about a third of the students do face some difficulty could be attributed to the same reason as to why they find it difficult to understand spoken English, that is, due to their family background and environment.

Most students also appear to possess the necessary reading skills. Table 10 shows that 14 students face a lot of difficulty in understanding instructions on job sheets. They could be the students undergoing their first on job training stint and are unfamiliar with the job sheets. More than 35 of the 100 respondents find that they have no difficulty in reading written material in English.

	<i>A lot of difficulty</i>	<i>Some Difficulty</i>	<i>Very little difficulty</i>	<i>No difficulty</i>
Reading course module notes	5	16	35	44
Reading reference texts for assignments and projects	6	16	41	37
Understanding aircraft instruction manuals	5	19	42	34
Understanding instructions on job sheets	14	17	41	38
Understanding information in memos, letters , reports etc	2	20	39	39

Table 10 – Degree of difficulty in reading written material in English

Table 11 shows that the majority of the students who participated in the survey appear to be confident of their writing skills in English. More than 75 per cent of the students who participated in the survey find that they face very little problem or no problem at all writing the various documents listed. Only less than five students feel that they have a lot of

difficulty writing in English. An average of 15 students find that they have some difficulty in writing notes, and answering examination and assignment questions. 26 students have difficulty writing memos, letters and reports but these are seldom required to be written by technical staff.

	<i>A lot of difficulty</i>	<i>Some Difficulty</i>	<i>Very little difficulty</i>	<i>No difficulty</i>
Writing short notes during lectures	3	12	47	37
Writing notes from reference material	3	15	42	39
Answering examination questions	4	14	43	38
Answering assignment questions	5	16	43	35
Completing worksheets for practicals	5	14	48	32
Recording tasks done in job log book	4	17	42	36
Writing memos	1	26	43	27
Writing letters	3	27	38	31
Writing reports	3	26	43	27

Table 11 – Degree of difficulty in writing documents in English

4.3 Interviews: Lecturers’ Perceptions of Students’ English Language Needs

Five senior lecturers were interviewed. Three of them had started their careers as aircraft maintenance personnel in the Royal Malaysian Air Force while another had been with the British Air Force based in Singapore. They had then worked in commercial airlines in the same capacity. All of them had more than 20 years’ experience in aircraft maintenance before joining the college as lecturers and they feel that their experience is of great benefit in teaching. They do not only have a good grasp of the subject matter but are also familiar with industry requirements. The fifth lecturer was attached to the Indian Navy’s Air Wing and had also taught in a college in India.

4.3.1 Lecturer 1

I first interviewed a senior lecturer at the Department of Aircraft Maintenance Technology. He had served as a maintenance technician in the Royal Malaysian Air Force for 21 years. On retirement from the air force, he worked in the manufacturing industry for 15 years before joining the college as a lecturer in aircraft maintenance technology. He had been teaching in this college for six years. He feels that his vast experience in aircraft maintenance is definitely useful in his present designation. He said that he used to teach even while he was in the air force. He asserts that proficiency in English is definitely important for anyone wanting to pursue a career in the aviation field. He explained that spoken and written communication in the aircraft maintenance industry is entirely in English. He finds that only about 50 % of the students in his department have the required level of proficiency in English. When asked on the students' abilities in the four language skills, he says that 70 % of the students can understand spoken instructions well. However, only about 50 % are able to speak the language well. As for reading, he finds that most students cannot fully understand what they read in textbooks and manuals. As for the students' writing skills, he feels that they are writing from memory. They memorise from lecture notes and books and recall from memory when answering examination questions. He feels that measures need to be taken to address the students' weakness in English. He suggests the use of material related to aircraft maintenance engineering during the English lessons. On the order of priority of the four language skills in an ESP course for the students, he believes that reading and writing, especially writing reports, should be given greater emphasis, followed by speaking and finally listening. He justifies his views by saying that students face the most difficulty in reading books and manuals and writing. Most students are able to understand spoken instructions well. They are also able to speak reasonably well in English. He says that the situation is especially worrying as the subjects

he teaches are taught in the later stages of the course, but the students' language proficiency is still wanting although they are about 18 months into the course.

4.3.2 Lecturer 2

The next lecturer interviewed has been teaching in the college for nine years. Prior to joining the college, he had worked as an aircraft maintenance technician with Malaysian Airline System (MAS) for 32 years. He had begun his career with the British Royal Air Force based in Singapore where he had served for five years before joining MAS. As a lecturer in Aircraft Maintenance Technology, he finds his previous working experience extremely useful as it is directly related to his current position. He says that it is definitely important for students of this course to have a good command of English as 'the language of aviation is English'. He finds that not all of his students have the required English proficiency to perform well in the course. On the students listening skills, he says that the students' ability to understand spoken English is 'not too bad if conveyed in simple language'. However there are occasions where he has to rephrase what he has said to enable students to understand. From his observation, the majority of students can speak English, although not grammatical at all times. However, there are some who cannot communicate in English or do not want to. As for reading, he opines that the students can understand course notes but face difficulty when reading books and maintenance manuals. This is because the lecturers have prepared the course notes in a manner that students can easily understand. He finds students writing, although grammatically incorrect, is good enough to get the message across. He foresees that the students who lack proficiency in English will face problems when they join the workforce. Even students who speak reasonably well in English do not write well. He proposes that students do more writing exercises. In his view, the order of priority for the language skills in any ESP course for the students should be reading, writing, speaking and listening. He also emphasises that the learning material

should be related to aviation to familiarise students with the technical terminology. He also suggests that student should communicate in English at all times to improve their command of English.

4.3.3 Lecturer 3

The third lecturer interviewed had served in the aircraft maintenance division of the Royal Malaysian Air Force for 22 years. He then worked in private companies involved in aircraft maintenance as a maintenance technician for 12 years before joining this college as a lecturer in the Aircraft Maintenance Technology Department. He has been teaching in the college for the past four years. He strongly feels that his previous working experience is definitely beneficial in his present duties. According to him , the greatest asset is his familiarity with the subject. He is confident that his practical experience, coupled with theoretical knowledge, stands him in good stead to impart the knowledge and skills required of an aircraft maintenance technician. As to whether proficiency in English is important for students pursuing the course, his answer is “Yes, because everything to do with aviation is in English. The manufacturers’ manuals are in English. Reports have to be written in English. And the language of communication at the workplace is English.” He grades most of the students’ proficiency in English as ‘below average’. However, he concedes that there are a few exceptions as some students are quite proficient in English. He opines that the students can complete the course as the lecturers go to great lengths to explain the lessons to them in simple language to facilitate understanding. However he foresees the weaker students facing problems when they start working in the industry as the workplace is less tolerant of inadequate communication skills. As to the students’ ability in the four language skills, he says that students can understand the lessons as the lecturers walk the extra mile to explain the subject matter as simply as possible to aid understanding. He rates their speaking, reading and writing skills as average. However he finds that the

students' do show improvement over time. Being a lecturer in English in the college and having taught these students during the first semester of their course, I concur with his opinion that there is definitely an improvement over time. Many of the students, who found it difficult to speak in English during the first semester, appear to be more confident speaking in the language when I meet them in an informal setting in the later semesters. This may be because they have by then been exposed to an environment where they have to use English most of the time.

Having been an English teacher in Malaysian secondary schools for 25 years before joining the college, I venture to provide a possible explanation for the improvement in the students' language skills. From my experience, I find that the students' lack of proficiency can be attributed to a number of reasons. Students, especially those from the rural areas, have very little exposure to English. They communicate in their mother tongue at home, be it Malay, Chinese or Tamil. They speak to others within their ethnic group in their respective mother tongues, and to others of different ethnicity in colloquial Malay. The only time they are exposed to English is during English lessons at school. They do not have the opportunity to practise the language after class. Even in class, they are hesitant to speak in English. Some of them are inhibited by a fear of making mistakes or being ridiculed by their friends. Some simply lack the confidence that they can speak in English. There are others who adopt a hostile attitude towards English as an unimportant language as knowledge of the national language would suffice to pass their examinations. This is because it is not compulsory to obtain a pass in English in public examinations. Therefore, these students complete 11 years of schooling without acquiring proficiency in English. They are not aware of the importance of English in higher education. However reality dawns upon them when they are in college. They find that all their subjects are taught in English. Their OJT stints also expose them to their future work environment. They realise

that proficiency in English is indispensable to succeed in their studies and in their career. They then adopt a more positive attitude towards the language and put in more effort to improve their language skills. This may help explain their improved English skills in the later semesters.

The lecturer also said that the students who lack the required level of English proficiency would surely be hampered from performing satisfactorily when they joined the workforce. He said that the department had received complaints from companies where students performed their OJT about the students' lack of proficiency in English. He emphasised that even the students who have a good command of English would benefit from a Technical English course. In his opinion, the order of priority of the language skills to be incorporated in an ESP course for aircraft students should be writing, speaking, reading and listening. The writing component should emphasise descriptive writing and discussion. He strongly feels that the best way to improve their command of English is for students to communicate only in English at all times while they are in college.

4.3.4 Lecturer 4

I then interviewed a senior lecturer who has been teaching the course in this college for five years. He had retired as a captain in the Royal Malaysian Air Force where he had served in the aircraft maintenance division for 24 years. He had spent the last few years of service teaching in the Aircraft Training School where he had trained maintenance personnel. He had then worked in a private company involved in aircraft maintenance for seven years before joining this college. He believes that his previous experience, especially as a trainer in the Aircraft Training School, comes in handy in his present designation. He too emphasises that proficiency in English is a must for students of aircraft maintenance technology. This is because all technical terms and maintenance manuals are in English. Hence, the course has to be taught and learned in English. He rates his students' English

proficiency as 'average'. He finds that the students are able to understand, speak, read and write simple English, which would be sufficient for their present purpose. However he says that the students may face problems 'to a certain extent' comprehending technical terms when they begin working. He too opines that even the students who are reasonably proficient in English would benefit from a Technical English course where they are exposed to the terminology used in aircraft maintenance engineering. He suggests that the order of priority for the language skills should be writing, speaking, reading and listening. The material used in the course should be extracted from texts on aircraft maintenance to familiarise students with the technical terminology employed in aircraft maintenance engineering. To improve their English proficiency, he recommends that the students be encouraged to speak in English at all times while in the college campus. He also suggests that they read more in English.

4.3.5 Lecturer 5

The last lecturer to be interviewed is from India. He had served in the Indian Naval Aviation Force for 20 years before teaching in a college in India for a year. He has been a lecturer in this college for six years. He too believes that his vast experience in the field is an asset in teaching the course. He feels that he can pass down the skills acquired over the years to his students. Moreover, the hands-on experience gained over the years helps him greatly in conducting practical sessions. As to the importance of English to the students, his answer was an emphatic 'yes'. The reason is because all aviation maintenance manuals throughout the world are in English. He feels that his students do not have sufficient proficiency in English. He rates the students' ability to understand spoken English as good. He says that only about 75 % of the students are able to speak reasonably well in English and only 70 – 75 % are able to understand what they read. However he finds that all of them are able to write reasonably well based on their ability to answer examination

questions. He too is of the opinion that some of the students would be hampered from performing satisfactorily at work due to their inability to fully read and comprehend aircraft maintenance manuals. He proposes the introduction of a technical English course for aircraft maintenance technology students. As to the order of priority to be accorded to the four language skills in an ESP course for his students, he lists them in the order of speaking, reading, listening and writing. He recommends that the teaching and learning material for the ESP course be sourced from aircraft maintenance manuals. He enlightened me on the fact that aircraft maintenance has a specialised vocabulary. This could be Simplified English, the standard aviation English used by maintenance personnel, referred to by Shawcross (as explained in Chapter 2). He produced a dictionary of aircraft maintenance English to support his view. A brief examination of the dictionary showed that certain ordinary English words assumed a different meaning in aircraft maintenance. He also suggested that students be given additional lessons in speaking and reading in English.

4.3.6 Conclusions from Interviews with Lecturers

All the lecturers concur that English proficiency is indeed important to students of aircraft maintenance engineering. This confirms Shawcross' (2005, p.1) assertion that English language has become an indispensable tool in the aircraft Maintenance, Repair and Overhaul (MRO) business. They are also unanimous in their opinion that their students, or some of them at least, would be hampered by their lack of English proficiency when they begin working. Two of the lecturers recommended that priority be given to the development of reading skills. This corresponds to Shawcross' finding that reading is the predominantly used skill as he estimates that an aircraft maintenance technician spends about 20 % of his working hours consulting written material in the form of the Aircraft Maintenance Manual, Illustrated Parts Catalogue, Troubleshooting Manual, Service Bulletins, Airworthiness Directives, Service Information Letters, Structural Repair Manual

or Component Maintenance Manual and Engine Shop Manual (Chapter 2). They also concur that the teaching and learning material for an English course for their students should be related to aircraft maintenance engineering. They also advocate the introduction of a Technical English course.

There is a general perception among the English educated generation that the standard of English of the present crop of students from the Malay medium of education is comparatively poor. This has been acknowledged by the Ministry of Education which has taken steps to arrest the declining standards of English. In 2004, Tun Dr Mahathir Mohamed, the then Prime Minister, implemented the teaching of Science and Mathematics in English in national schools to improve students' English language skills. The many letters to the press bemoaning the declining standards of English proficiency are further evidence of the discrepancy in English proficiency between the English educated Malaysians and the current students. This could lead to the possibility of the Malaysian lecturers being opinionated, that is they consider students educated in the Malay medium of instruction as lacking in English proficiency. However the views of the expatriate lecturer appear to negate the incidence of prejudice on the part of the English-educated Malaysian lecturers. He shares the view that the students need to improve their English language skills. He qualifies his opinion that the students can write reasonably well by clarifying that it is based on their answers to examination questions. This is not a true measure of their writing skills as these are drawn from their notes and textbooks. Therefore it can be inferred that the lecturers have been objective in their views.

4.4 Summary

The students' level of proficiency in the four language skills based on students' self-assessment and feedback from the lecturers is summarised in the following sub-sections.

4.4.1 Listening

The majority of students, about two-thirds of the 100 respondents surveyed, find that they can understand spoken English well. Only a negligible number have a lot of difficulty in understanding spoken instruction in English. The lecturers too agree that most students can understand English fairly well. However, the lecturers say they do try to express themselves in simple language to aid understanding. This is the area in which the students face the least problem as all the lecturers concur that listening should be given the least priority in an English course for their students.

4.4.2 Speaking

The students feel they can speak English fairly well. Only a very small number admit that they face a lot of difficulty. However the students' confidence in their ability to speak in English may be misplaced for they may not be aware of the pronunciation and grammatical errors they make. Three of the lecturers have ranked speaking skills as second in order of priority for an English course while one has ranked it first. They also recommend that students should be required to speak in English at all times while in college. This indicates that the lecturers feel that the students have still not attained the required level of proficiency in speaking.

4.4.3 Reading

Most of the students are confident that they have the required reading skills. However the lecturers opine that the students need to improve their reading skills. The students may have based their assessment on their ability to understand course notes and assessment and examination questions. The lecturers have explained that they take efforts to simplify course notes to cater to the students' ability. Moreover the students may not really have been required to read instruction manuals by themselves yet as they have done only two- or four-week stints of OJT during their semester holidays. Only during the final semester of

their course do they undergo 14 weeks of OJT. The lecturers base their opinions from their experience in the industry. That is the probable reason why all of them advocate the use of material related to the discipline of study for any English language taught.

4.4.4 Writing

The majority of the students who participated in the survey feel that they have little difficulty in

writing in English. Only less than five students feel that they have a lot of difficulty writing in English. On the other hand, their lecturers feel otherwise. Only one lecturer finds that all of them are able to write reasonably well, but he based his opinion on their ability to answer examination questions. Another lecturer elucidates that students memorise notes to answer examination questions. Two lecturers recommend that writing be given first priority in an English course while two others rank it second. One also says that students should be trained to write reports.

4.4.5 Overall View of Students' English Language Skills

The analysis of the questionnaires shows that students rate their listening and reading skills better than their speaking and writing skills. From the researcher's personal experience in teaching English to these students, they could not have judged themselves more accurately. Most of the aircraft maintenance engineering students were able to understand spoken and written English well but had difficulty in expressing themselves both orally and in writing.

The majority of students feel they have no problem understanding lessons in class. More than two thirds of the students who participated in the survey say that they have little or no difficulty in all the four areas of listening, speaking, reading and writing, both in the classroom and during on job training. An average of 75 per cent of the students opine that English is very important to perform their tasks satisfactorily during on job training.

The interviews with the lecturers painted a slightly different picture. They feel that only 50 per cent of their students have the required level of English proficiency to perform satisfactorily at the workplace. This may be because the lecturers have attempted to present the lessons as simply as possible to facilitate understanding. This may have given some of the students a misplaced sense of confidence. However the lecturers know that this will not be the case at the workplace where these students would be required to work independently.

Two of the lecturers interviewed are of the opinion that the teaching of reading should be given priority over the other language skills. As pointed out in Chapter 4, Shawcross (2005) estimates that an aircraft maintenance technician spends about 20 per cent of his working hours consulting written material. Therefore it is not surprising that the lecturers, who have vast experience in aircraft maintenance, also feel that reading is a very important skill. The lecturers generally feel that their students' ability to understand spoken English is satisfactory but that their speaking skills should be further improved. The students also need to improve their writing skills. They feel that students should be given more training in report writing and also be exposed to the technical terminology used in aircraft engineering.

While the majority of students feel that they have the required level of language proficiency, their lecturers do not concur. They feel that the present level of English proficiency of some of their students would be insufficient to perform their duties satisfactorily in their careers as aircraft maintenance technicians. The lecturers are of the opinion that the students need further language instruction, especially in reading and writing. They also propose that students be taught Technical English based on learning material sourced from texts related to aircraft maintenance engineering. When they use the term "Technical English", they are referring to an ESP course for students of aircraft maintenance engineering. All of them believe that the teaching and learning material should

be related to the field. This is in tandem with Hutchinson and Waters' view that learners performed better with the use of material that catered to their knowledge, skills, experience, schemata and learning strategies and situations (Chapter 2).

The interviews with the lecturers reveal that the students need to improve their English proficiency as well as be able to read and write documents related to their field of study. The students would have to be taught two modules of English to fulfil their needs. They would first have to undergo an EGP course to improve their proficiency in English. This course, to be taught preferably in the first semester, should emphasise more on reading and speaking skills. The second module should be an ESP course specially designed for students of Aircraft Maintenance Engineering. The material used in the classroom should be extracted from texts related to their field of study. The English teacher could enlist the help of the lecturers from the Aircraft Maintenance Engineering Department to obtain the relevant teaching-learning material.