CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter explains the methodology of data collection and analysis used in the study. The chapter includes sections that describe the study design, the tools, the participants, and the procedures of data collection and analysis.

The data in this study is analysed to determine how selected motivation components ranked among university students in learning English, the factors that affect their motivation and the degree of motivation in learning English among female and male students in tertiary education. The study was conducted at a private university college during the second semester of the 2007 academic year.

3.2. Study design

The nature of this study is quantitative. A quantitative study as pointed out by Reichardt and Cook (1979, as cited in Nunan, 1992:3) is 'objective and it can be highly controlled. Results can be regarded as reliable and it is easy to make generalisations about them.' In addition, as motivation is something that is not easily observable and can only be inferred (Kelly, 2001), the researcher feels a quantitative method is better suited for this study. The survey design employed for the study is the Motivation Scale questionnaire developed by Wen, 1997 and adapted by Shaaban and Ghaith, 2000. The quantitative methods and the Motivation Scale were used for this study as they were relevant to answer the research questions.

3.3. The setting

The study took place at a private university college. The university college is located in Kuala Lumpur, Malaysia. It offers various certificate, diploma, degree and postgraduate courses with majors ranging from Engineering, Information Technology, Business, Applied Sciences to Pharmacy, Medicine, Social Science and Music.

The university college enrols students from various parts of Malaysia, mostly students around the neighbouring areas who generally did not gain admission into public university. In addition, it also enrols students from around the world, specifically, from China, the Middle East and Africa.

3.4. Pilot study

Cohen et. al (2000) stated that piloting a study is crucial as it can increase the clarity of the questionnaire, gain feedback on the time spent to complete the questionnaire and identify how effective the coding system is for the data analysis. With these objectives in mind, in late April 2007, a pilot study was carried out on a small group of nine students (4 females, 5 males) based on convenience sampling. These students were later excluded from the study. They took 20 minutes to complete the questionnaire, which gave an indication on how much time should the researcher allocate to conduct the actual questionnaire.

The participants stated that the questionnaire was clear and they did not pose any questions. However, they pointed out a typing error in the questionnaire. The questionnaire was then corrected. The data from the questionnaire was analysed to

ascertain that answers to the research questions could be obtained. The data obtained from the pilot study is also used to determine the appropriateness of the coding system. The data collected from the Likert scale was suitable as it provided the expected answers for the research questions.

The Motivation Scale was then administered to 189 participants from the university college. A copy of the questionnaire is included in Appendix A.

3.5. The participants

The participants are 189 undergraduate students with 80 males (43.33%) and 109 females (57.67%). The sampling is based on non-random convenience sampling. Any Malaysian student who was interested or available could take part in the study, provided that the student is enrolled in at least one of the compulsory English proficiency courses. Generally all students enrolled at this university college are required to do at least one semester of English courses before they start their core courses. The students are enrolled in various majors at the university. The age of the participants ranges from 17 to 23.

International students are excluded as the targeted sample from this study is only students from Malaysia. The reasons for this is to have a standardised sample as these Malaysian students have experienced at least 11 years of learning English as a second language, previously in primary and secondary schools. These Malaysian students have also sat for the Sijil Pelajaran Malaysia or SPM, a national level examination required for all secondary school students at the final year in school. The students have been

exposed to English that has been taught formally as a second language since they were seven years old. The medium of instruction in primary school and secondary school is Bahasa Malaysia but once students enter university, the medium of instruction is English and often students find it difficult to speak and write in English when they do their assignments and presentations.

Overall, the participants reported Chinese, Malay, Tamil and English as one of their first languages. 119 participants (62.96%) reported Chinese as their first language, 3 participants (1.59%) speak Malay, 4 participants or 2.12% speak Tamil, while 56 or 29.63% participants reported English as their first language. The rest of the 7 participants, or 3.70%, did not answer the question. Altogether, participants enrolled in 16 courses that are offered at the university. Table 3.1 shows the courses in which the participants are enrolled.

Table 3.1: The distribution of participants according to course

No.	**Course**	**Frequency**	**%**
1	B. Engineering	2	1.06
2	B.A. in Accounting & Finance	1	0.53
3	B.A. in English Language & Communication	7	3.70
4	B.A. in Mass Communication	26	13.76
5	B.A. in Psychology	26	13.76
6	B.Sc in Biotechnology	1	0.53
7	Diploma in Business Management	4	2.12
8	Diploma in Electrical & Electronic Engineering	6	3.17
9	Diploma in Information Technology	2	1.06

No.	Course	Frequency	%
10	Diploma in Interior Architecture	1	0.53
11	Diploma in Logistic Management	5	2.65
12	Diploma in Management	12	6.35
13	Diploma in Nursing	4	2.12
14	Foundation in Music	4	2.12
15	Foundation of Arts	40	21.16
16	Foundation of Science	43	22.75
17	Not specified	5	2.65
	Total	189	100.00

3.6. Instruments

This study employed a survey design that involved administering a questionnaire known as the Motivation Scale (developed by Wen, 1997 and adapted by Shaaban and Ghaith, 2000). In order to obtain the participants' background details, they were asked to provide their age, gender, programme enrolled in, results for SPM English, both written and spoken first language, languages spoken and school attended.

3.6.1. Motivation Scale (Wen, 1997; Shaaban and Ghaith, 2000)

The participants' level of motivation in learning English as a second language was measured using the Motivation Scale developed by Wen (1997) and modified by Shaaban and Ghaith (2000). The questionnaire consists of 34 items and is divided into two major parts: motivation information and information on learning outcomes. Table

3.2 displays the break down of the items according to the motivation components in the Motivation Scale.

Table 3.2: The distribution of items in the Motivation Scale

Part	Motivation Component	Items
Motivation information	Integrative Motivation	1,2,3,4,8,9
	Instrumental Motivation	5,6,7,10
	Effort	11,12,13,14,15,16
Information on learning outcomes	Valence	1,2,3,4,5,6
	Expectancy	1,2,3,4,5,6
	Ability	1,2,3,4,5,6

The integrative motivation component consists of six items with Likert-type scale (items 1, 2, 3, 4, 8, and 9) that address the appreciation of the culture, the art, and the literature of English in addition to communication with English speakers.

The instrumental motivation component consists of four items with Likert-type scale (items 5, 6, 7, and 10) that focus on the importance of English for economic development, for understanding people's problems and for obtaining employment or pursuing further education. Table 3.3 indicates the Likert scale employed to measure integrative and instrumental motivation.

Table 3.3: Pre-coding responses for integrative and instrumental motivation

Likert scale	Points
Completely agree	6
Agree	5
Somewhat agree	4
Somewhat disagree	3
Disagree	2
Strongly disagree	1

As for the effort component, it consists of six multiple-choice items (items 11, 12, 13, 14, 15, and 16) that focus on the degree of effort exerted in learning English. Table 3.4 demonstrates the scale employed to measure effort.

Table 3.4: Pre-coding responses for effort exerted by participants

Degree of Effort	Scale
High effort	D
Just enough effort	C
Little effort	B
No effort	A

The valence component consists of six items with Likert-type scale (part II, items 1, 2, 3, 4, 5, and 6) that focus on the participants' perception of the importance of the following outcomes: fluency, communication, comprehension, good grades and

understanding the English culture and customs. Table 3.5 indicates the Likert scale employed to measure valence.

Table 3.5: Pre-coding responses for valence

Likert scale	**Points**
Very significant	6
Significant	5
Least significant	4
Least insignificant	3
Insignificant	2
Very insignificant	1

The expectancy component consists of six Likert-type items – item 1, item 2, item 3, item 4, item 5 and item 6 with an 11-point scale (ranging from 0 to 100%) that focus on the participants' views of the probability of their achieving the same outcomes mentioned in the valence component. Table 3.6 shows the Likert scale used to measure expectancy.

Table 3.6: Pre-coding to measure expectancy

Category	No probablity ---------- High Probability										
%	0	10	20	30	40	50	60	70	80	90	100

The ability component consists of six Likert-type items - item 1, item 2, item 3, item 4, item 5 and item 6 with an 11-point scale (ranging from 0 to 100%). These questions focus on the participants' perceptions of their ability to achieve the same outcomes mentioned in the valence and expectancy components. Table 3.7 shows the Likert scale to measure ability.

Table 3.7: Pre-coding to measure ability

Category	Very Low Ability ----------Very High Ability										
%	0	10	20	30	40	50	60	70	80	90	100

3.7. Procedures of data collection

Data collection began in June 2007 and the process lasted for more than two months in the second semester of the 2007 academic year. While some students came and volunteered to take part in the study outside class hours, assistance was also sought from some instructors in the university to administer the survey in class, mainly from those who taught classes with a large number of Malaysian students. Permission was obtained from the instructors of various courses during the last 20-25 minutes of their class time for the administration of the survey. Consent was also obtained from the participants. The survey, its objective, structure and content were introduced to the participants. The questionnaire was distributed to 189 students.

The participants were informed that their honest answers were of utmost importance to measure their motivation and that their participation was voluntary. It was also

explained to them that all information and answers provided would be treated with confidentiality and they were welcome to remain anonymous should they feel uncomfortable to reveal their name.

The participants were also encouraged to ask questions with regard to the survey so they would be able to understand each item and answer accordingly.

3.8. Procedures of data analysis

The data was analysed using the Microsoft Excel for Mac and the Statistical Package for the Social Sciences (SPSS) version 15.0 for Windows. A normality test was first done to see if the data was properly distributed by plotting the data of each motivation component on a histogram. A histogram that shows a bell shaped curve indicates that the data is normally distributed (Dancey and Reidy, 2004). Therefore, parametric tests can be carried out to analyse the data. Nevertheless in this study, the normality test indicated that the data for each motivation component was not evenly distributed, therefore, non-parametric tests are used in analysing the data. This can be justified when Fraenkel and Wallen (1996:53) state:

> "*In many research situations we cannot use parametric tests because our data do not meet the assumptions underlying their use. For example, we might have a skewered data with very small or unequal sample sizes. We would be unsure as to our data were drawn from a normally distributed population. Non-parametric makes no assumptions about the data that might be able to meet the assumptions for parametric tests".*

In addition, this study consists of an unequal sample size in terms of gender, 42.33% males and 57.67% females and the sampling of the study is small.

In order to address the first research question, which is to rank the selected motivation components among the participants, each item of the questionnaire was computed and a frequency count of responses with high scores was carried out. For integrative motivation, instrumental motivation and valence, the high scores range from 5 (agree) to 6 (strongly agree). For effort, the highest score was D, for expectancy and ability, the highest scores range from 70% to 100%. Then, the mean of each motivation component was calculated.

Due to the fact that the number of questions for each component is not the same, the weighted mean of each component was calculated first. Subsequently, the overall mean was determined.

In order to address the second research question, which is to ascertain the possible factors that affect students' selected motivation components, each of the items and the choices made by the participants in the questionnaire was analysed through frequency distributions.

In order to address the third research question, which is to determine how motivation differs between females and males, a non- parametric test, the Kruskal-Wallis test was conducted as an alternative to a two-way MANOVA, as the data on each motivation component was not evenly distributed. Gender (female vs. male) was used as the independent variable and the selected determinants of motivation (instrumental, integrative, effort, valence, expectancy and ability) were used as dependant variables.

3.9. Summary

The procedures of data analysis of the study conclude this chapter. To sum up, this chapter discussed the setting of the survey, the participants and the instruments employed in the study. In addition, this chapter also discussed the methodology of data collection and analysis employed in order to address the three research questions in the study.

The next chapter will provide the results gathered from the questionnaire. This will be followed by a discussion of the results and findings of the analysis.