

**CHAPTER THREE**  
**RESEARCH METHODOLOGY**

**3.0 Introduction**

This is a case study of a group of low achieving students in an urban school. Data was collected from the pre and post – tests of paper 1 and paper 2, pre and post questionnaires, classroom observations and interviews to investigate the students' development through peer tutoring, over a period of twenty weeks.

**3.1 The Sample**

Students

The sample used for the study consist of 41 students from SMK Taman Maluri, Kuala Lumpur.

**Table 3.1**

**Breakdown Figure of Sample Students According to Gender and Race (n=41)**

	Malays	Chinese	Indians	Total
Boys	17	8	1	26
Girls	10	3	2	15
Total	27	11	3	41

Table 3.1 shows the breakdown of sample students according to gender and race. This class consisted of 26 boys and 15 girls. There were 27 Malays, 11 Chinese, and 3 Indian students respectively.

SMK Taman Maluri, Kuala Lumpur was selected as the site of study because the researcher was teaching English Language at the school at the time the research was carried out. Hence, she could have easier access to the subjects of the study. Moreover, she could also obtain cooperation from the administrators and the other English teachers.

### **3.2 Selection of subjects**

This study was carried out in an English proficiency class for Form Three students who will be sitting for the first major examination in the secondary school which is Penilaian Menengah Rendah (PMR). This class of students were streamlined and identified by the administration of the school as low achievers based on their low grades (grade D and E) acquired in the Year End examination 2001 when they were all in Form Two (Appendix J).

Table 3.2

**Analysis of Sample Students' Performance in English at the Year End Examination**  
**in 2001 (n=41)**

Race \ Grade	A	B	C	D	E	Total
Malays	0	0	6	4	17	27
Chinese	0	0	1	0	10	11
Indians	0	0	3	0	0	3
Total	0	0	10	4	27	41

Based on the students' performance in English Language in Year End Examination in 2001 (Table 3.2-Appendix J) 10 students scored grade C, 4 of them scored grade D and 27 of them scored grade E. In this school based examination, students who scored grade A are considered excellent, grade B is considered good, grade C is considered satisfactory, grade D is considered poor, and grade E is considered as fail.

These Form Three students are those who obtained very low grades in their English Language for school examinations since Form One and therefore they would represent the below average students in the school. This is important in order to make generalizations based on the findings of the study.

These Form Three students were chosen for the study as part of the researcher's initiative to upgrade the performance of the students in terms of quality and quantity in the PMR examination which these students will be sitting for in October 2002. Moreover, these students needed extra training sessions in writing as their low performance in final year examination in Form Two 2001 was an efficient indicator of their lack of writing skills in English and this was affirmed by the analysis of students' performance done by the Key Personnel for English Language in SMK Taman Maluri, Kuala Lumpur.

### **3.3 Selection of Peer Tutors and Tutees**

The researcher had certain objectives for this class of low achievers assigned to her. The researcher wanted the ten students who scored grade C to score grade A or B in PMR examination and the students who score grade D to move up to grade B or C and lastly, wanted to push up the 27 students who obtained grade E to grade C or D so that there will be no failures in the class.

To achieve these objectives, the researcher decided to use Cooperative Learning activities in which peers use English to teach their peers English. The

first two weeks of class in January 2002 were used to understand her students' needs and also to divide the students into ten groups to implement peer tutoring. The students were grouped based on the information she gathered from informal questioning about their home backgrounds, schooling, and English proficiency. For the selection of tutors, writing tasks given in class for the whole month of January 2002 were taken into consideration.

The 10 students who scored grade C in Year End Examination in 2001 were of average ability in writing compared to the other 31 students in her class. In addition the researcher conducted an informal oral test on the 10 students to test their oral ability. These 10 students demonstrated their ability in writing and speaking, so they were chosen as tutors. The spoken language ability of the tutors is very vital in this study as they should be able to instruct, motivate, and give feedback to the tutees. Devin-Sheeban and Allen (1976) suggest that a tutor's ability in the subject that he is to teach should be better than his tutee.

The researcher carefully selected mixed ability groups each with a carefully chosen leader who also had appropriate leadership qualities such as patience, dedication and teaching ability. She formed ten groups of students who stayed together for 20 weeks and worked together. They were not allowed to change groups. The leaders are referred as the tutors and play the role of a 'peer teacher' and the peers in their group assigned to them are known as the tutees.

Before peer tutoring was implemented in the class, the researcher gave four weeks of guidance and intensive training to the tutors to improve their writing skills after school hours. This was carried out in the month of February 2002.

Each subject was assigned as a tutor of a group of learners and the grouping was done on the basis of the scores achieved in the English examination taken by all subjects at the end of their Form Two examination. In addition to this, the tutors also underwent an oral test. In order to guide the learners in the group, the tutors must have fluency in spoken English to conduct the brain storming, to develop ideas, and construct sentences during writing sessions. Altogether ten tutors were identified and these were those who achieved higher scores in the oral test compared to the other subjects in the class. The tutors and tutees were subjected to the same pre-test in the month of February 2002.

**Table 3.3**

**Breakdown of Sample Tutors According to Gender and Race (n=10)**

	Malays	Chinese	Indians	Total
Boys	5	0	1	6
Girls	1	1	2	4
Total	6	1	3	10

Table 3.3 shows the breakdown of tutors according to gender and race. There were 6 Malays, 1 Chinese and 3 Indian tutors respectively. Among them 6

tutors were boys and the other 4 were girls. Each tutor was assigned to a group consisting of 3 tutees except for one tutor who had 4 tutees.

**Table 3.4**

**Breakdown of Tutees According to Gender and Race (n=31)**

	Malays	Chinese	Indians	Total
Boys	12	8	0	20
Girls	9	2	0	11
Total	21	10	0	31

Table 3.4 shows the breakdown of tutees according to gender and race. There were 21 Malay and 10 Chinese tutees. Among the tutees, 20 of them were boys and 11 were girls. The tutees were equally distributed into 10 groups.

All the tutors and learners selected in this study were monitored very closely to determine the effects of peer tutoring and to determine the general attitude and the difficulties faced by the learners of the L2. It is hoped the data collected from them will highlight the benefits of this exploratory study.

### **3.4 Training of Tutors**

The training session for the tutors started in early February 2002 and was carried on for 4 weeks. The researcher used properly structured writing and reading tasks and gave instructions to the tutors on how to carry out the tutoring

sessions. The most successful peer tutoring occurs where the material to be taught has been organized in a systematic way and where the tutors have been appropriately trained (Wheldall, 1999).

This training was very vital for the tutors as the peer tutors' script told him or her exactly what to do at any given moment. Having a fully scripted sequence made the tutoring session easier for peer tutor to manage. The tutors were exposed to worksheets and learning materials to be used during peer tutoring. The learning materials consisted of 3 comprehension passages for reading and understanding, enrichment of vocabulary, and grammatical aspects such as verbs and tenses, prepositions and pronouns. For writing skills 6 writing tasks on various topics were prepared and the tutors were given instructions on the procedures to carry out the different activities. The researcher facilitated the tutors with materials during each tutoring session.

### **3.5 Orientation of the Subjects**

Once the tutors were selected the researcher placed the tutors and tutees in their respective groups during the English lesson. The tutors and tutees were introduced to each other and their sitting areas in the classroom were specified. The tutors and tutees were given detailed explanation on the objective of the tutoring session. The tutors were briefed on their role as 'peer teachers' in the classroom with 3 tutees under their responsibility during peer tutoring. The tutors have to teach the tutees English skills required for paper 1 and 2. The tutees were briefed on the role they have to play, and the commitment and cooperation



expected from them during tutoring session. They were told that the peer tutoring programme was aimed to help both the tutors and tutees to improve their language performance. It was also emphasized that it would provide opportunity for interaction and mutual help between the tutors and tutees. The tutors were told that their role was to help all the tutees assigned to them with the teaching materials prepared by the researcher. The tutors have to help the tutees understand the task given in L2 and complete it within the time frame given. The tutees were told to get help from their tutors during tutoring sessions if they had problems in completing the task assigned for the day.

### **3.6 Tutoring Sessions**

Parental permission to participate in this exploratory study was obtained from all the 41 students, in early January 2002. With the support and cooperation from the principal of the school, the researcher implemented peer tutoring with her selected subjects. Peer tutoring session started in early April 2002 and went on for 20 weeks, until the end of August 2002.

The normal English Language class allocated on the timetable by the school for this class on Wednesdays was from 11.50 a.m. to 1.05 p.m. But the researcher, with the cooperation of parents, tutors and tutees extended the session until 2.00 p.m. The first tutoring session lasted an hour (11.50 - 12.50pm) and the tutors used materials on selected reading passages to improve the language of tutees for paper 1, namely for grammar, vocabulary, and comprehension. The

second slot (12.50 – 1.50pm) was used for writing skills. The peer tutoring session was a holistic effort to enable both tutors and tutees to perform well in Paper 1 and 2.

a) Tutoring process for Paper 1 (1 hour)

The tutors were given worksheet with a comprehension passage. For the first ten minutes the tutees in their group were instructed to read and understand the passage. While reading the tutees underline the words that they do not know the meaning. The next twenty minutes, the tutees took turns to read aloud the passage and looked for the meanings of words that they underlined in the dictionary. The tutors explained the contents of the passage as well as the meanings of the words in Malay Language when requested. The following twenty minutes were used by the tutees for answering questions on comprehension and grammar. The last ten minutes was used for discussing the answers. The tutees obtained clarification from the tutor on grammar related areas in case they had problems.

b) Tutoring session for Paper 2 (1 hour)

The tutors were given writing tasks for the day and they distribute it to the tutees in their respective groups. The first ten minutes were used on brainstorming session. In this session, the tutees were asked to list out words that were associated with the title given for writing for the day. Next the tutor, asks all the tutees in the group to read out the words listed one by one. At this juncture the

tutees write down words that they have missed out but has connection with the title for writing. The next ten minutes the tutees get help from the tutor for clarification of meanings of words or they would look up the meaning in the dictionary. The following ten minutes is used for discussion on generating ideas related to the topic using the vocabulary listed earlier. The last thirty minutes, was used by the tutors and tutees to write out the composition.

The Mid Semester Examination analysis of the students' performance in this study did not show much improvement as expected by the researcher because peer tutoring was still in the beginning stage. Since paper 2 carries 54% of the marks, compared to 46% allocated for paper 1, the researcher decided to allocate more time to improve writing skills towards the end of June 2002 so that the tutees can show better performance in the PMR examinations.

### **3.7 Instrumentation**

Data collection was carried out according to a research schedule. The researcher used both qualitative and quantitative methods for data collection and analysis. The quantitative methods used to collect data were pre study and post study questionnaires and the respondents' performance in paper 1 and 2. The qualitative methods used are pre and post study classroom observations. Apart from this, results obtained from four evaluation tests conducted in various stages of peer tutoring, were used as data in this study.

## Research Schedule 2002

No	Activities	Week/Month
1.	Analysis of Form 2 results year 2001	2 <sup>nd</sup> . W /Jan
2.	Permission from parents	3 <sup>rd</sup> . W/Jan
3.	Selection of Tutors and Tutees	1 <sup>st</sup> -4 <sup>th</sup> . W/Jan
4.	Training of Tutors	1 <sup>st</sup> -4 <sup>th</sup> . W/Feb
5.	Administration of Pre-Study Questionnaire	2 <sup>nd</sup> . W/Feb
6.	Evaluation Test 1a – Pre-Study paper 1	2 <sup>nd</sup> . W/ Mar
7.	Evaluation Test 1b – Writing Task 1	3 <sup>rd</sup> . W/Mar
8.	Evaluation Test 1b – Writing Task 2	4 <sup>th</sup> . W/Mar
9.	Implementation of Peer Tutoring	1 <sup>st</sup> . W/Apr
10.	Observation Check list	1 <sup>st</sup> . W/Apr
11.	Mid Semester Examination	1 <sup>st</sup> . W/May
12.	Trial Examination	1 <sup>st</sup> . W/Aug
13.	Observation Check List	3 <sup>rd</sup> . W/Aug
14.	Evaluation Test 1a – Post Study Paper 1	3 <sup>rd</sup> . W/Aug
15.	Evaluation Test 1b – Writing Task 1	3 <sup>rd</sup> . W/Aug
16.	Evaluation Test 1b – Writing Task 2	4 <sup>th</sup> . W/Aug
17.	Interview with Tutors and Tutees	1 <sup>st</sup> . W/Sept
18.	Administration of Post-Study Questionnaire	2 <sup>nd</sup> . W/Sept
19.	PMR Examination 2002	1 <sup>st</sup> . W/Oct
20.	Analysis of PMR results 2002	4 <sup>th</sup> . W/Dec

### 3.8 Questionnaires

For the purpose of this study two sets of questionnaires were administered to collect data from the respondents.

#### a) Pre-study questionnaire (Appendix A)

This pre-study questionnaire consisted of four parts: Part A which was mainly to know the background of the students, Part B was to know their reading background, Part C was to know their writing ability, and Part D was to know their attitude towards English Language and School. Part C and D were meant for tutees only. Information gathered from this

pre-study questionnaire would help the researcher to understand the subjects in this study better. This questionnaire was given in English to collect data from the respondents before the tutoring session started. The researcher helped the tutees to answer the research questions by giving explanation in the Malay Language when necessary. This set of questionnaire was administered in the second week of February 2002.

#### b) Post Study Questionnaire (Appendix B)

The second set of questionnaire (Appendix B) was administered in the second week of September 2002 after the students had undergone 20 weeks of peer tutoring. This questionnaire consisted of three parts: Part A is on writing ability, Part B is on opinions on group work, Part C is on tutor/tutee reaction, and Part D is on attitude towards English Language and school of tutees. The information gathered was to help the researcher to collect data on the benefits of peer tutoring and the problems encountered during peer tutoring.

In the Post-study questionnaires, the section on writing ability and attitude towards English Language used in the Pre-study questionnaire was repeated. This was to compare their ability prior to peer tutoring and the changes that tutors and tutees underwent after twenty weeks of peer tutoring. The structured questions for interview (Question 2) were asked on the same area. This was to triangulate the findings and to prove the effects of peer tutoring.

### **3.9 Classroom Observation**

The classroom observation was carried out by the researcher during tutoring sessions as a means of triangulating the findings from the post study questionnaires. The observation checklist was also used for April and August observations to study the attitude of tutees towards English Language in detail. The goal of the classroom observation was to understand how the tutors carried out the tasks given and how the tutees participated during tutoring sessions. Observation notes were based on a checklist (Appendix C) prepared by the researcher which includes description of tutees work, behavior and self-organization which were analyzed according to gender.

Two sets of classroom observations were used in this study. The first set of classroom observation was recorded in April 2002, which was just before the Mid- Semester Examinations and was used for Pre-study analysis. The second classroom observation was conducted in August 2002 immediately after the Trial Examinations. The second classroom observation neatly coincided with the administration of the Post-study questionnaire and the results were analyzed to confirm the attitude of the tutees after undergoing peer-tutoring sessions. The observation check list was for the researcher and it was used during the classroom observation, whereby the researcher went around each group making notes and also

interacted briefly with tutors and tutees which provided some insight of their understanding on the particular task.

This classroom observation was an attempt to triangulate the findings of the students' questionnaires with the researcher's classroom observations.

### **3.10 Interviews-Peer tutors and tutees**

The interview was based on structured questions in Appendix D and was conducted on the first week of September 2002. All the 10 tutors and 31 tutees were interviewed individually after school hours. The interview was to further triangulate information gathered from questionnaires and observation check lists regarding this tutoring programme. The interview conducted on the tutors and tutees were summarized under the following coding: Leadership attitude of tutors, problems, advantages and self-confidence of tutors and tutees.

### **3.11 Writing Tasks**

Two writing tasks were used as tools to measure the performance of the tutees in writing. Writing task 1 was on 'My Self' and writing task 2 was an Informal Letter. Both the tasks were given to the subjects on the third and fourth week of March 2002 before the tutoring session started. The performance of the tutees in March was coded here as Pre-Study Performance (Appendix E2) in

writing and it was used again in the tutoring session as materials for writing. The performance of tutees in August 2002 is coded here as Post-Study Performance (Appendix E2) in writing. Writing Task 1 was tested for content, vocabulary, mechanics and total score while Writing Task 2 was tested for format, content, vocabulary, mechanics and total score. Both the writing tasks were used to evaluate the tutees' performance after the tutoring session was over. Apart from this, scores in Evaluation Tests 2a & 2b, 3a & 3b, which were the Mid-Semester and Trial Examination scores respectively, as well as the actual PMR scores were used for Post-Study evaluation.

### **3.12 Respondents' Performance**

The respondents' referred to here are the tutors and tutees. Their performance in paper 1 (Appendix E1) and paper 2 (Appendix E2) of the first Evaluation Test were analyzed to see the effect of peer tutoring on the language performance and writing abilities of both tutors and tutees. Appendices E1 and E2 were used for pre-study evaluation. The researcher prior to this study prepared the materials for this study. To give more practice for the tutees, 3 other worksheets on components from paper 1 and 4 other writing tasks were used in the tutoring sessions. Only Appendices E1 and E2 were used in the discussion in data analysis as these Evaluation Tests were the basic pre and post-tests.



In the midst of peer tutoring sessions, the tutors and tutees sat for two important school based examinations which were Mid Semester Examinations (Appendix F1 & F2), which were prepared by the Jabatan Pendidikan Wilayah Persekutuan Kuala Lumpur and Trial Examinations (Appendix G1 & G2) prepared by the English Department of SMK Taman Maluri. It is the universal principle in all schools to give more difficult level questions to their students in Trial Examinations. This is done by the schools in order to compel the students to study hard for the actual PMR examination.

Since the results were assessed in school, the researcher has also considered the performance of respondents in these two examinations as on-going evaluation and Post-Test respectively. Finally, the actual PMR 2002 examination results of the respondents in this study were analyzed as another Post-Test to do a comparison study of their achievements in Mid Semester and Trial Examinations.

### **3.13 Evaluation Tasks Analyzed in this study**

This research was a longitudinal study. So, the researcher has used two other school based examinations and one public examination, PMR Examination, to compare the performance of tutors and tutees at various stages of peer tutoring except for Evaluation Test 1a & 1b (Appendix E1 & E2) which was carried out in February 2002 to evaluate the initial

proficiency level of tutors and tutees before peer tutoring was implemented. The Evaluation Test 1a & 1b was used again in September 2002 to compare the performance of tutors and tutees after undergoing peer tutoring sessions. The Evaluation Tests were coded and implemented according to the following schedule:

No	Item	Month
1	Evaluation Test 1a & 1b (Pre- Study Test Paper 1 & 2)	February
2	Evaluation Test 2a & 2b (Mid Semester Examination Paper 1 & 2)	May
3	Evaluation Test 3a & 3b (Trial Examination Paper 1 & 2)	August
4	Evaluation Test 1a & 1b (Post-Study Test Paper 1 & 2)	September
5	Evaluation Test 4a & 4b (PMR Examination Paper 1 & 2)	October

### 3.14 Examination Format of English Language at PMR level

The English Language paper for PMR consists of paper 1 and paper 2. Paper 1 is an objective paper comprising 60 multiple choice questions and it carries 60 marks. The students' ability to understand comprehension passages, forms and functions, vocabulary and grammar components are tested in this paper. Paper 2 consists of three subjective questions whereby students have to write two compositions and answered one literature based question. In this

literature- based question, students have to write the answer in not less than 50 words. Paper 2 carries 70 marks. For both papers, the time allocated to answer is one hour and thirty minutes.

Evaluation Tests 2a & 2b, and 3a & 3b were designed in the same format to expose the students to the PMR format. The researcher analyzed the results achieved carefully and remedial steps were taken to overcome the problems faced by the tutors and tutees in Paper 1 & 2. The researcher used the results of the tutors and tutees in these five Evaluation Tests to discuss the effects of peer tutoring.

### **3.15 Method of Data Analysis**

The four instruments used in data collections were analyzed accordingly.

#### **I. Questionnaires**

##### **a. Pre-study questionnaire (Appendix A)**

This pre-study questionnaire was administered before peer tutoring started. Part A in the questionnaire was to gather information on the background of the subject and Part B was to know their reading background. Part A and B were answered by tutors and tutees. The information gathered in these two sections were summarized and generalized by the researcher. Part C and D were only administered to the tutees. Part C was to know their writing ability and Part D was to know their attitude towards English Language in school. Information gathered

in Part C and D were on a Lickert scale. A tally count was prepared and later summarized and presented in frequency and percentage.

b. Post-study questionnaire (Appendix B)

The post study questionnaire was administered to the tutors and tutees. After 20 weeks of peer tutoring sessions, the tutors and tutees answered Part A, which was opinion on writing ability and Part B which was on group work. Part C consists of tutor/tutee reaction to gather information on peer tutoring and its benefit. Lickert scale was used and the data was presented in frequency and percentage. Part D was to know the attitude of tutees in learning English Language, and their attitude towards school. In the Pre-Study questionnaire (Appendix A) and Post-Study questionnaire (Appendix B), the same section on the attitude towards English Language and School and writing ability was used in order to know their perception before participating in peer tutoring and later to know their perception on the same subject after peer tutoring. These two sections were administered only for the tutees. Lickert scale was used and the data was presented in frequency and percentage.

2. Classroom Observation

The classroom observation was an ongoing process in every tutoring session. The data presented here is the observation in the beginning (April) and ending (August) of peer tutoring, hence the findings were used to triangulate findings of both Pre-Study and Post-Study questionnaires, as well as the findings of the

structured interviews at the end of August 2002. Classroom observation was based on notes written down during tutoring sessions and a checklist (Appendix C) prepared by the researcher which was used to measure work, behavior and organization of the tutees during tutoring sessions. The information gathered was summarized and presented in frequency and percentage according to gender.

### 3. Interview

All the tutors and tutees were interviewed based on the structured questions in Appendix D to further support the effects of peer tutoring sessions. The answers given were summarized and coded under headings such as 'leadership of tutors', 'attitudes of tutees', 'problems encountered', 'advantages of tutoring' and 'self-confidence'.

### 4. Respondents' Performance

The respondents referred to are both the tutors and the tutees. In this study, both the tutors and tutees were subjected to the same proficiency tests as the process of tutoring is to benefit both the tutors and tutees. The tutees' performance in paper 1 and 2 in all the Evaluation Tests 1a & 1b (Appendix E1 & E2), 2a & 2b (Appendix F1 and F2), 3a & 3b (Appendix G1 & G2), were presented in frequency and percentage. The final discussion was on comparison of the grades obtained by both tutors and tutees in the Mid-Semester Examinations (Appendix F1 & F2) and the PMR Examinations 2002 (Appendix H1 & H2) were also presented in frequency and percentage. These grades were used for

discussion as both the examination papers were prepared by a neutral body and the researcher could use it as a yardstick to evaluate the effect of Peer Tutoring strategy.

### **3.16 Conclusion**

In conclusion it is hoped that the information obtained through this study would give insights on peer tutoring and would create awareness among the teachers in L2 as to the advantages for both groups in improving their English Language performance and writing skills.

The students' positive responses on the other hand would help teachers devise plans and adopt this research method to overcome problems in writing for students at all levels and hopefully review their present teaching approaches. It is hoped that the suggestions given in this research would be given due notice by the Ministry of Education and key personnel to help trainee teachers to use this strategy to improve the students English proficiency and especially upgrade their writing skills.