CHAPTER THREE

RESEARCH METHODOLOGY

This study aims to investigate how teacher-student and student-student interactions during peer response sessions help the group members to revise the first drafts of their compositions. It also aims to identify the types of scaffolds provided by the class teacher and peers during the teacher-student and student-student interaction sessions. Additionally, this study examines how students revise the first drafts of their compositions based on the verbal and written comments of the class teacher and peers. This chapter consists of five main sections. The first section includes details related to the selection of setting. The second section is a detailed description on the participants in the study. The third involves a description of the design of the study. This is followed by a description of the data collection procedure. The final section focuses on analysis of the data collected for this study.

3.1 Selection of Setting

A Grade A secondary school located in the heart of Kuching city in the state of Sarawak, Malaysia was chosen as the ground for this study. This school had a student population totalling about 2,396 (52.5% girls and 47.5% boys) in 2006. The ethnic composition of the school was: 68.4% Chinese, 28% Bumiputras, 2.9% Indians and 0.8% other races.

Generally, the performance of the students in this school for the English Language Papers in the *Penilaian Menengah Rendah (PMR)* and *Sijil Pelajaran Malaysia (SPM)* examinations has been very promising. According to statistics supplied by the Sarawak Department of Education (2005), the school achieved high passes in the English Language subjects in the *PMR* and *SPM* examinations during the last three years (from

2002 until 2004). In the *PMR* examination, the school achieved passes of 96.3% in 2002, 95.6% in 2003, and 94.8% in 2004. In the *SPM* examination, the school also recorded high passes of 90.4% in 2002, 95.5% in 2003, and 97% in 2004. These high percentages of passes for the English Language subjects in the *PMR* and *SPM* examinations in this school surpassed the percentage of passes for English Language at the Sarawak State Level and the National Level. For instance, the percentage of passes for the English Language subject in the *PMR* examination at the Sarawak State Level was 72.2% for 2002, 70% for 2003, and 70.4% for 2004; while at the National Level was 72.2% for 2002, 68.1% for 2003, and 70.1% for 2004. In the *SPM* examination, the percentage of passes for the English Language subject at the Sarawak State Level was 69.7% in 2002, 74.5% in 2003, and 76.1% in 2004; while at the National Level was 66.9% in 2002, 71.3% in 2003, and 71.7% for 2004.

This school was chosen as the ground for this study because of several reasons. Firstly, it was due to the willingness of the English Language teacher to participate in this study. Besides, the school principal was very cooperative and helpful. Initially, the researcher interviewed ten ESL teachers from five different schools but only one was willing to partake in this study. The rest were unable to commit themselves due to their heavy workload and other responsibilities in schools. Secondly, the researcher chose to carry out this study in the state of Sarawak because so far to the best of the researcher's knowledge, no study of such nature has been conducted in this state. Thirdly, the encouraging results of the students in the *PMR* and *SPM* examinations in this school over the last three years as evident above would serve as the basis to set off this study. This scenario would provide the social context needed to capture the dynamics of the teacher-student and student-student interactions during the peer response sessions to help the group members revise the individual first drafts of their compositions and the data collected from the writing tasks would enrich the findings of this study. In other

words, through interaction, not only the teacher can assist students, but the high-proficiency level students would be able to assist the intermediate-proficiency level students to function at a higher cognitive level. The presence of this social context also corresponds with Vygotsky's (1978) theory of learning in that the teacher and the more capable peers would be able to help the group members perform beyond their current developmental level. In addition, the findings in this study would serve as the yardstick to educators, researchers and policy makers as to know what transpires in the teacher-student and student-student interactions during the peer response sessions, and what makes a group works or otherwise. With this knowledge gained, policy makers and educators can plan on how to help weak students to become better writers.

3.2   Participants in the Study

This is a case study that involves a group of six Form Four students and one experienced English as a Second Language (ESL) teacher in an ESL writing class in a secondary school in the state of Sarawak. The reason for focusing on only one teacher and a group of six students is to enable an in-depth analysis to be done on the teacher-student and student-student interactions as well as to have a detailed analysis of the individual first drafts of the students' compositions. Yin (1984) supports case studies for the study on interaction and processes. Cohen, Manion & Morrison (2000) also advocated that "… case studies investigate and report the complex dynamic and unfolding interactions of events, human relationships and other factors in a unique instance" (p. 181).

3.2.1 The Class Teacher

This is a case study which involved one ESL teacher. By focusing on one teacher in one classroom permitted consistency in teaching methodology and helped minimise the variations of peer interaction.

The ESL teacher selected for this study was Cik Liza. She graduated from University College of Chicester in the United Kingdom in the year 1997 with a degree in Teaching English as a Second Language. This present school was her second posting as a teacher. The ESL teacher was chosen as she has eight years of experience in teaching the English Language subject and she has been exposed to the process approach to teach writing. She has practised this process approach to writing prior to this study. Another reason for choosing Cik Liza was because she was a well-organised, motivated and dedicated teacher. She is also keen in using the process approach to teach writing and she believes that through group work, the students can help each other to brainstorm for ideas and to provide useful feedback to assist their peers in the revision of the individual first drafts of their composition.

Cik Liza's views of teaching English and writing were obtained through informal interviews and classroom observations. She taught English according to the English Language Syllabus specified in the Secondary School Integrated Curriculum which was planned by the Curriculum Development Centre, Ministry of Education. The English Language Syllabus specifies the themes and list of language skills to be covered for listening, speaking, reading and writing. It also emphasises the integration of grammar, vocabulary and thinking skills in teaching the curriculum specifications. Cik Liza taught according to the syllabus to prepare the students for the *SPM* examination that is prepared by the Examination Syndicate, Ministry of Education. Five periods were allocated to teach English for each Form Four class in the school. Each period before the school recess was 35 minutes, while each period after recess was 40 minutes. Two

periods were allocated for the teaching of writing. There were two English papers in the *SPM* examination. Paper One tests students on directed writing and continuous writing. Paper Two tests students on grammar; information transfer, reading comprehension, summary writing; and open response to poem, short story as well as novel.

The main objective of Cik Liza's writing lesson was to help her students improve their writing skills through giving and receiving responses from each other on their writing. She believes that through responding to each others' writing, students can learn to write better essays. Cik Liza adopted a process approach to teach writing. She taught her students the process of pre-writing, drafting, responding to each others' drafts during the peer response session, revising and editing. Besides that, Cik Liza provided guidelines by exposing her students to the genre of expository writing before they were assigned to write expository composition. She stressed the importance of having an introduction, a body and a conclusion. She highlighted the need to have a thesis statement in the introduction, proper paragraphing, topic sentence and elaboration of the main points. In addition, she provided model of students' essays as a guide for the whole class to read and learn on how to present and support ideas as well as to organise those ideas. Other than that, she provided feedback to the students (either individually or as a class) on the general strengths and weaknesses of their writing as well as gave suggestions on how to improve their writing.

Cik Liza practised group work in her writing class, mainly in the pre-writing stage and during the peer response session. At the pre-writing stage, the rationale for having group work was to allow students to brainstorm in order to generate more ideas on the topic of the composition assigned to them. During the peer response session, Cik Liza encouraged the students to respond to the individual first drafts of their peers. She hoped that through the collaborative effort of giving and receiving feedback from their peers will help them in the revision of the first drafts of their composition.

3.2.2 Student participants

The selection of participants of this study was based on purposive sampling from a class of forty-four (44) students. The participants of this study were an intact group which comprised three high-proficiency level and three intermediate-proficiency level students in a Form Four class. The class teacher assigned the students to their respective groups (Johnson & Johnson, 1999, p. 23). Each group had writers of mixed proficiency level. The participants of this study were chosen out of a total of seven groups in the class. The rationale of having students of mixed proficiency level was to help enhance interaction among the group members as this complies with Vygotsky's (1978) theory of learning that with guidance from an adult or more skilled peers, a child would be able to function at a higher level on his or her own. Besides, according to Vygotsky (1978), the cultural development of a child begins from the social plane (between individuals) and then it progresses to the psychological plane (within an individual). In other words, the presence of the different proficiency level students provides the social context for interaction between the individuals.

The students were Cathy, Ted, Eva, Amy, Aini and Elle. Ted is a boy while Cathy, Eva, Amy, Aini and Elle are girls. They were fifteen to sixteen years old. The students were from diverse cultural backgrounds. Cathy, Ted and Elle are Chinese while Amy is an Iban and Aini, a Malay. The students were from a mixture of middle and low social economic status. All the subjects had received nine years of education: six years in primary school and another three years in the lower secondary school. Cathy, Ted and Elle were from the same primary school with Chinese as the medium of instruction. Although Eva, Amy and Aini were from different primary schools with the Malay Language as the medium of instruction, Eva learnt Chinese as one of the subjects in her primary school. All the participants in this study had learnt English as a second language for nine years. The medium of instruction in the secondary school is the

Malay Language. English is taught as a subject. Besides English, the students are taught eight other subjects which are conveyed to them in the Malay Language. The use of English was mainly confined to the English periods during class time. Outside class, all the students conversed in English with their English teacher. However, Cathy, Ted, Eva and Elle used a mixture of Chinese, Malay, English and their mother tongue (Hokkein) when conversing with other teachers, friends and family members. Aini communicated with other teachers, friends and her family members by using a mixture of Malay and English. As for Amy, she used a mixture of Malay, English and her mother tongue (Iban) when conversing with other teachers, friends and family members.

The students' English-proficiency level was determined based on their *Penilaian Menengah Rendah (PMR)* English paper results. All the students sat for their *PMR* examination in 2005. Cathy, Ted and Eva obtained Grade A, while Amy, Aini and Elle obtained Grade C for their *PMR* English paper. Those who obtained Grade A for English were placed in the high-proficiency level category, while those who obtained Grade C were placed in the intermediate-proficiency level category. Throughout this study, Cathy, Ted and Eva were referred to as the "more capable" or "more competent" students; whereas Amy, Aini and Elle were referred to as the "less capable" or "less competent" students.

Cathy, Ted, Eva, Aini and Elle had been studying in the same secondary school but different classes for the past three years since they were in Form One. Amy had studied in a different secondary school in the state of Sarawak. However, they became classmates since studying in Form Four. They worked in the same group throughout their English writing lessons.

I chose Form Four students as the participants of this study because of several reasons. Firstly, they would be more mature in their thinking to produce longer expository compositions as compared to students of Lower Secondary Forms (Forms

One and Two) who would be required to write more of the short narrative and descriptive compositions. Secondly, it is not the researcher's intention to disturb public examination classes, such as Forms Three, Five and Upper Six. Besides, the Lower Six students would be pressed for time to catch up with the syllabus since they normally register late in their respective classes. Due to these reasons, the best choice would be the Form Four students who were already exposed to the process approach to writing and group work which are the foci of this present study.

The focal group of students was selected because of four reasons. First, they represented the ethnicity of the students in the school. Chinese made up the majority of the students in the school, followed by Bumiputras. Secondly, they worked in the same group throughout the discussion and writing lessons in their English class. They were seldom absent from school. Thirdly, they were of mixed-proficiency level, an essential criterion in this study. Fourthly, the group members were a mixture of a boy and five girls which is representative of the students in the school who were made up of both boys and girls. The students were chosen due to their willingness to participate in this study and to stay back after school for interviews.

3.3 Design of the Study

This case study primarily adopts a qualitative approach to address the research questions of this study. The qualitative approach describes the phenomena of the course of interactions between the teacher and student, and between the students in an ESL writing class. The various methods used in this study include observations, interviews, and documentary records (transcripts of teacher-student and student-student interactions, and writing tasks).

3.4   Data Collection Procedure

The data collection procedure for this study involves five phases. Phase 1 involves two steps. The first step in Phase 1 is obtaining approval from the Education, Planning and Research Department (EPRD) and the Sarawak Department of Education (JPN) to conduct this research in the chosen school.   The second step in Phase 1 is the preliminary data collection of the background of the participants and the chosen school. Phases 2, 3, 4 and 5 are the implementation of Writing Tasks 1, 2, 3 and 4 respectively. Phase 2 involves 13 steps in the implementation of Writing Task 1. The same 13 steps are followed in Phases 3, 4 and 5 for the implementation of the subsequent Writing Tasks 2, 3 and 4 respectively.

Figure 3 on the following page shows an overview of the research design of this present study. The whole process of data collection was over a period of five months. The first phase involves two steps. The first step in Phase 1 is obtaining approval from EPRD and the Sarawak Department of Education (JPN) to conduct this research in the chosen school (refer to Appendices A1 and A2 for the letters of permit from EPRD and JPN respectively).   The second step in Phase 1 involves data collection of the background of the class teacher, student participants and school through informal preliminary interviews with the school principal, teacher and student participants of the chosen school (refer to the list of preliminary interview questions in Appendices B, C and D for the school principal, class teacher and student participants respectively).   The interview sessions were transcribed to obtain the necessary information to support the data of this study.

The second phase is the implementation of Writing Task 1 which involves 13 steps as shown in Figure 3. The first step in this phase is presenting a writing task (refer to Appendix E) by the class teacher. Prior to the writing of the composition, there was a pre-writing session in which the class teacher introduced and explained the writing task

to the whole class. Students were divided into groups of mixed-proficiency level to brainstorm for ideas and aspects of language to be included in the writing of the composition. After that, all the students composed the first draft of the composition individually and then handed in their work to the teacher. During the pre-writing and composing of the first draft session, the researcher carried out in-class observation and audio-taped the teacher-student and student-student interactions (among the group of six members of this study) on the writing task assigned by the class teacher. Section 3.4.2 provides a detailed description of the pre-writing and composing of the individual first draft session.

The fourth step involves the researcher collecting the six students' individual first drafts from the teacher and making photocopies of them. The fifth step involves conducting the peer response session which began with the distribution of photocopies of the students' individual first draft among the group members. Group members were given 10 to 15 minutes to read through and jot down comments on the individual first draft of their peers. This is followed by the peers and class teacher providing verbal feedback to assist the group members to improve their individual first draft. While the peer response session was in progress, the sixth step involves audio-taping the teacher-student and student-student interactions of the target group of students. At the same time, the researcher carried out the seventh step, that is in-class observation of the teacher-student and student-student interactions of the target group of students.

After that, the students revised their individual first draft based on the class teacher and peer feedback and handed in their individual revised version (final draft) to the class teacher. Section 3.4.3 provides a detailed description of the students' rewrites, Section 3.4.4 describes the peer response session, and Section 3.4.5 describes the in-class observation sessions. The ninth step involves the transcription of the audio-taped

teacher-student and student-student interactions during the pre-writing, composing and peer response sessions of the target group of students. The transcription was done in a verbatim manner. The tenth step is to identify the types of scaffolds provided by the class teacher and peers during the pre-writing, composing and peer response sessions, to examine how the class teacher and peer scaffolds facilitate learning, to investigate whether there is any difference between the roles of the class teacher and peers during the peer response sessions, and to examine whether the teacher instructions given during the pre-writing stages have any influence on the interactions among the peers and in the revision of the first drafts of their compositions.

The eleventh step involves analysing the students' individual first draft to identify the types of scaffolds jotted down by the peers just before they commence their peer response session. This step also involves comparing the first and final drafts of the students' writing tasks to examine how the students revise the first drafts of their compositions based on the peer and class teacher feedback (both verbal and written).

The twelfth step is interviewing the class teacher and the six student participants of this study individually. The interview with the class teacher was to gather information on the class teacher's view of the students' familiarity of the different themes for the four writing tasks given; the dynamics of the teacher-student and student-student interactions through the bird's-eye view of the class teacher; the class teacher's role during the pre-writing, composing and peer response sessions; the types of scaffolds given by the class teacher to assist the students; the types of revisions that students made on the final drafts of their compositions; the class teacher's perceptions of having peer response session in assisting the group members to improve their revisions; the class teacher's perceptions on the benefits of using the process approach to teach writing; and whether there was any follow-up activity after each writing session (refer to Appendix F

for the list of interview questions for the class teacher). Section 3.4.6 provides a detailed description of the purpose of interviewing the class teacher.

The interviews with the students were to gather information on the students' familiarity of the different themes for the four writing tasks given by their class teacher; the types of scaffolds they gave to their peers and received from their class teacher and peers; the dynamics of the teacher-student and student-student interactions during the pre-writing, composing and peer response sessions; whether they were confident in giving feedback to their peers' work; whether they perceive the feedback given by their class teacher and peers helped to improve their revisions; how their class teacher and peers assist them to improve their revisions; what they have learnt about student-student interaction and the process of writing through the revision of drafts; whether the students sought assistance from others to help them improve their revisions; and what the students did after submitting the final drafts of their compositions. Section 3.4.6 provides a detailed description of the purpose of interviewing the six student participants of this study. The interview sessions with the students were audio-taped (refer to Appendix G for the list of interview questions for students). The thirteenth step is transcribing the audio-taped interview sessions with the class teacher and students.

Phase 3 is the implementation of Writing Task 2. The procedure for the implementation of Writing Task 2 involves the same thirteen steps (Step 1 until Step 13) as mentioned above in Phase 2. Similarly, Phase 4 (the implementation of Writing Task 3) and Phase 5 (the implementation of Writing Task 4) followed the same thirteen steps as mentioned in Phase 2. The four writing tasks are described in Section 3.4.1.

3.4.1   The Writing Task

Four writing tasks of different themes were assigned by the class teacher to the students of each group during the pre-writing stage. All the four writing tasks given

were expository in nature (refer to Appendix E for the four writing tasks). Expository composition writing was chosen to be used in this study because of two reasons. Firstly, it is appropriate for the Form Four students who were in the transition period as it required them to focus on content and give their opinion which would enhance their creative and critical thinking skills. This can be achieved through teacher-student and student-student interactions which will provide the necessary feedback to help in the revision of the individual first draft of the students' writing. This stance is supported by Vygotsky's (1978) theory of learning that collaboration with an adult or more skilled peers can lead to the development of the learner's ability to perform independently at a higher cognitive level. Secondly, through a review of past research, it was found that a number of studies examined narrative writing (for example, Berg, 1999; Connor & Asenavage, 1994; Daiute & Dalton, 1993; De Guerrero & Villamil, 1994; Komathy, 2000; Mccafferty, 1992; Mohd. Sofi bin Ali, 1994; Pennington & So, 1993; Villamil & De Guerrero, 1996), expository writing (for example, Carson & Nelson, 1996; Cumming & So, 1996; Freedman, 1992; Lockhart, 1994; Mangelsdorf & Schlumberger, 1992; McGroarty & Zhu, 1997; Sasaki & Hirose, 1996), descriptive writing (for example, Denyer & LaFleur, 2001; DiCamilla & Anton, 1997; Faigley & Witte, 1981; Hedgcock & Lefkowitz, 1992; Sim, 1998; Sommers, 1980), and persuasive writing (for example, Cotterall & Cohen, 2003; De Guerrero Villamil, 1994; Paulus, 1999; Sommers, 1980; Villamil & De Guerrero, 1996). However, to the best of the researcher's knowledge, expository writing has yet to be explored in the Malaysian context.

The four writing tasks were chosen because they conformed to the themes of 'People', 'Environment', 'Social Issues' and 'Health' as outlined in the Form Four English Language Integrated Secondary School Curriculum (KBSM) Syllabus in Malaysia (Kementerian Pendidikan Malaysia, 2003). Writing Task 1 which focuses on

the theme of 'Places of Interest' is related to the theme of 'People'. Writing Task 2 on the theme of 'Environment and Pollution' is directly related to the theme of 'Environment'. Writing Task 3 which focuses on the theme of 'Cases of students being bullied' is related to the theme of 'Social Issues'. Writing Task 4 on the theme of 'Healthy Lifestyle' is related to the theme of 'Health'. The sequencing of the four writing tasks to be assigned to the students is in accordance with the Form Four English Language *(KBSM)* Syllabus in Malaysia. The level of difficulty of the four writing tasks was kept constant to enable the students to internalise the rules and concepts learnt and consequently to transform those knowledge learnt to new writing tasks of similar level of difficulty. By giving writing tasks of the same level of difficulty, it conforms to Vygotsky's (1978) theory of learning that a child can only perform within his or her own 'zone of proximal development'. On the contrary, if a task given is too much in advance of the current level of thinking, it will result in regression instead of development (Tudge, 1990).

The process approach to writing is used in this study as the class teacher was exposed to this approach and she has practised it in her writing class prior to this study. Through this approach, students can work collaboratively to develop their writing skills through teacher-student and student-student interactions. This approach will also enable the teacher and peers to provide the necessary scaffolds during the teacher-student and student-student interactions to assist the group members to improve their revisions. Each participant was required to write two drafts (first draft and final draft) for each of the writing tasks. The length required for each composition is between 200 to 250 words which is deemed appropriate as an in-class activity because Form Four students are in the transition period from writing guided composition *(PMR)* to continuous writing *(SPM)*. The whole process of collaborative writing through teacher-student and

student-student interactions took eight sessions, which was carried out over a period of five months.

The time allocated for the pre-writing and composing of the individual first draft session was 1 hour and 10 minutes (that is, a double period in the secondary school). At the end of each of the writing sessions for the individual first draft of the students' composition, the researcher collected the individual first drafts from those students who had finished composing them. Those who could not finish composing their individual first drafts were asked to complete them within the same day of the pre-writing session of the composition concerned. Then, the researcher made photocopies of the students' individual first drafts.

As mentioned earlier in Section 3.4, in implementing each of the four writing tasks, there was a peer response session in which the students provided feedback (verbal and written comments) on the first draft of each of the group members and helped one another to improve their first draft. After the peer response session, all the students in the group revised their individual first draft based on the feedback given by their class teacher and peers and then handed in their individual revised version (final draft) to the teacher. The students were allowed to hand in their individual final drafts within two days after the peer response session. The time allocated for each of the peer response session was 1 hour and 10 minutes (that is, a double period in the secondary school). However, it is noted that while the peer response session to the individual first drafts of Compositions 3 and 4 took 1 hour and 10 minutes each, the peer response session to the individual first drafts of Composition 1 took 1 hour and 35 minutes and the peer response session to the individual first drafts of Composition 2 took 1 hour and 20 minutes. The longer time taken for the peer response session to the individual first drafts of Compositions 1 and 2 was because more feedback was exchanged amongst the group members to assist them in their revisions. On the other hand, the shorter time

taken by the group members to respond to the individual first drafts of their Compositions 3 and 4 was because the students committed fewer errors; and therefore, lesser feedback was given by the peers.

The original first and final drafts of the students' compositions were given to the class teacher who assessed and gave written comments on the students' work. The first drafts with the class teacher's written comments were returned to the students after each of the peer response sessions to assist the students in their revisions. The class teacher also returned the revised final drafts to the students after she had finished marking them.

3.4.2   Pre-writing and Composing of the First Draft Session

There was a pre-writing and composing of the first draft session for each of the four writing tasks assigned to the students. According to Raimes (1985), 'pre-writing' involves the following:

> … all the activities (such as reading the topic, rehearsing, planning, trying out beginnings, making notes) that students engaged in before they wrote what was the first sentence of their first draft. (p. 241)

During the pre-writing stage in this present study, the class teacher assigned the writing task to the whole class. The writing task was assigned one at a time according to the sequencing as mentioned earlier in Section 3.4.1. This was followed by the class teacher introducing and explaining the writing task to the students. After that, the class teacher divided the class into groups of mixed-proficiency level (five to six students in each group) to discuss and generate more ideas on the writing task concerned. For the purpose of this study, the researcher focused on the writing activity of a group of six students. The time allocated for each of the pre-writing and composing of the first draft sessions was 1 hour 10 minutes (that is, a double period in the secondary school). The researcher carried out in-class observation of all the activities (refer to Appendix H for

the in-class observation form) and audio-taped the teacher-student and student-student interactions of all the four pre-writing and composing of the first draft sessions.

Besides that, the researcher carried out 'respondent validation' of the student-student interaction during the pre-writing sessions to the first drafts of all the students' compositions to check that the findings are dependable. This notion of reliability is termed as 'dependability' (Guba & Lincoln, 1994). Categories of scaffolds were drawn from the transcripts of the teacher-student and student-student interactions. The teacher instructions given during the pre-writing stage were examined for any potential influence on the interaction among the peers and in the revision of the individual first drafts of all the four compositions. Two inter-raters were engaged to examine the transcripts of the teacher-student and student-student interactions to verify the categories of the class teacher and peer scaffolds provided during the pre-writing sessions to the first drafts of all the students' compositions. In addition, field notes were recorded by the researcher during the in-class observation of all the activities that occurred throughout the four pre-writing stages, including the teacher-student and student-student interactions while the students were composing the individual first drafts of their compositions. These field notes were used to support the data of this study.

3.4.3 Students' Rewrites

All the students' rewrites (first and final drafts of all the four compositions) were collected systematically. The researcher analysed all the first drafts and final drafts (that is, a total of 48 drafts) to examine how the students revise the first drafts of all the four compositions based on the class teacher and peer verbal comments received during the peer response sessions and also class teacher and peer written comments made on the individual first drafts of their compositions. The researcher also compared the first and final drafts (that is, 24 first drafts and 24 final drafts) to determine whether there is any

improvement made on the individual final drafts of all the four compositions of the students. Any correct revision made on the individual final drafts of the compositions as a result of the class teacher and peer feedback was counted as an improvement. Bottom-up data-driven categories of revisions made by the students were determined through comparison of the students' first and final drafts of all the four compositions.

Faigley & Witte's (1981) taxonomy of revision changes as shown in Figure 4 below was used as a guide to categorise the types of revisions on all the final drafts (that is, a total of 24 drafts) of the four compositions.

Figure 4
A Taxonomy of Revision Changes

Revision Changes			
Surface Changes		*Text-Base Changes*	
Formal Changes	*Meaning-Preserving Changes*	*Microstructure Changes*	*Macrostructure Changes*
Spelling Tense, Number, and Modality Abbreviation Punctuation Format	Additions Deletions Substitutions Permutations Distributions Consolidations	Additions Deletions Substitutions Permutations Distributions Consolidations	Additions Deletions Substitutions Permutations Distributions Consolidations

Source: Faigley, L. & Witte, S. (1981). *Analyzing Revision. College Composition and Communication*, *32*(4), 403.

As shown in Figure 4 above, Faigley & Witte's (1981) taxonomy of revision changes emphasizes two main categories of revision changes: Surface Changes and Text-base Changes. Surface Changes are changes that neither add new information nor delete existing information. Meaning changes involve the inclusion of new content or the removal of old content. There are two subcategories (Formal Changes and Meaning-Preserving Changes) under Surface Changes. Formal Changes involve changes in "spelling; tense, number, and modality; abbreviations; punctuation; and format" (Faigley & Witte, 1981, p. 402). Meaning-preserving Changes involve "changes that 'paraphrase' the concepts in the text but do not alter them" (Faigley &

Witte, 1981, p. 403). Meaning-Preserving Changes include changes such as Additions, Deletions, Substitutions, Permutations, Distributions, and Consolidations. Text-base Changes constitute two subcategories (Microstructure Changes and Macrostructure Changes). Microstructure Change is "meaning change that would not affect a summary of a text" (Faigley & Witte, 1981, p. 405). On the contrary, Macrostructure Change involves a significant change in revision which would "alter the summary of a text" (Faigley & Witte, 1981, p. 404).

The categorisation of both the Microstructure Changes and Macrostructure Changes follows the same six operations (Additions, Deletions, Substitutions, Permutations, Distributions, and Consolidations) identified under Meaning-Preserving Changes. However, in contrast to Meaning-Preserving Changes, Meaning Changes involve altering the concepts of a text.

Two inter-raters were engaged to further verify the categories of revisions made by the students and to determine whether there is any improvement made on the individual final drafts of the students' compositions. Besides, the first and final drafts (that is, a total of 48 drafts) of all the four compositions were analysed to investigate if there is any difference between the types of revisions made by the high and intermediate-proficiency level students on the individual final drafts of the four compositions based on the teacher and peer feedback.

3.4.4   Peer Response Session

There was a peer response session on the students' individual first draft for each of the writing tasks assigned to the students. During the peer response session, the peers provided feedback to their group members to help them improve the individual first draft of each of the compositions. The role of the class teacher and her verbal comments were also looked into and analysed. All the peer response sessions were audio-taped

and transcribed in verbatim by the researcher. Bottom-up data-driven categories of the teacher and peer scaffolds were drawn from the transcripts of the teacher-student and student-student interactions.

Besides, the transcripts of the teacher-student and student-student interactions were analysed for the pattern of development of ideas that emerged during the peer response sessions to help the group members revise the individual first drafts of their compositions. The analysis of the pattern of development of ideas that emerged during the peer response sessions were described in detail in Section 3.5.1. The researcher investigated whether there is any difference between the roles of the class teacher and peers during the peer response sessions in assisting the group members to revise the individual first drafts of their compositions. In addition, the researcher examined how the class teacher and peer scaffolds facilitated learning.

Other than that, the researcher carried out 'respondent validation' of the student-student interaction during the peer response sessions to the first drafts of all the students' compositions to check that the findings are dependable. Moreover, two inter-raters were engaged to examine the transcripts of the teacher-student and student-student interactions to verify the categories of class teacher and peer scaffolds as well as the pattern of development of ideas that emerged during the peer response sessions to help the group members revise the individual first drafts of their compositions.

3.4.5 In-class Observation

The researcher carried out eight in-class observation sessions in a naturalistic environment involving a group of six students and a class teacher throughout the process of completing the four writing tasks. The researcher acted as a non-participant and an unobtrusive observer sitting within the vicinity of the target group to observe and record all the activities that transpire among the participants during the eight in-class

observation sessions. There were four in-class observation sessions which focused on the teacher instruction, teacher-student and student-student discussions during the pre-writing and composing stage, while the other four sessions focused on the teacher-student and student-student interactions during the peer response sessions when the students worked in their group. According to Cohen et al. (2000), "Observation methods are powerful tools for gaining insight into situations" (p. 315).

An in-class observation form adapted from Creswell (2005) (see Appendix H) was used to record field notes on the writing task assigned, class involved, name of the class teacher, number of students, date and day, time, length of observation, description of activities, and reflective notes by the researcher. The descriptive field notes focused on the description of the class teacher input, teacher-student discussion and generation of ideas by the peers on the writing tasks given during the pre-writing stages; and teacher-student and student-student interactions during the peer response sessions in which the students worked in their group to give feedback (verbal and written) on the individual first drafts of their peers' compositions. The reflective field notes are records of the researcher's personal thoughts on the "insights, hunches, or broad ideas or themes that emerged during the observation" (Creswell, 2005, p. 214). The field notes taken from all the eight in-class observation sessions helped to further enrich the data of this study.

Besides taking field notes of the above activities, the researcher also audio-taped the dynamics of the teacher-student and student-student interactions during the pre-writing stages, the composing of the individual first drafts of all the writing task sessions, and during the peer response sessions.

3.4.6   Interview

Preliminary interviews were conducted with the school principal, class teacher and student participants to gather information on the background of the class teacher, student

participants and the chosen school of this study. The interview sessions were taped recorded and transcribed to obtain the necessary information to support the data of this study.

An interview session was arranged with the English Language teacher after she had finished correcting the final draft of each of the students' compositions. All the six student participants were also interviewed individually after they had submitted the individual final draft of each of their compositions. The interviews for both the class teacher and students were based on a list of semi-structured questions (refer to Appendix F for the list of interview questions for the class teacher, and Appendix G for the list of interview questions for the students). The rationale of conducting face-to-face interview with the participants after the completion of the individual final draft of each of the students' compositions is to ensure the participants (class teacher and students) were able to provide immediate feedback on the group activities which were still vivid in their minds. This is because according to McDonough & McDonough (1997), the use of semi-structured questions allows greater flexibility in the arrangement of questions, more extensive follow-up of responses, as well as provides richer interactions and personalised responses. Prior to the actual research, the semi-structured interview questions for the class teacher were pilot-tested with an ESL teacher, while the semi-structured interview questions for the students were pilot-tested with three high and three intermediate-proficiency level Form Four students from an urban school in the state of Sarawak. This is to ensure the validity and reliability of the semi-structured interview questions for the class teacher and students.

The four interview sessions with the class teacher helped to gather information on the class teacher's view of the students' familiarity of the different themes for the four writing tasks given; the class teacher's observation of the student-student interaction for all the four tasks given; the class teacher's view on how the peers helped each other to

revise the individual first drafts of their four compositions; the types of scaffolds given by the students to their peers to help them improve their revisions; the types of scaffolds given by the class teacher to the students, the class teacher's role during the pre-writing, composing and peer response sessions; whether the students used the class teacher and peer feedback to help them revise the individual first drafts of their compositions; the types of revisions that the students made on the individual final drafts of their compositions; the class teacher's perceptions on peer response session in helping the group members to improve their revisions, the class teacher's perceptions of the benefits of using process approach to teach writing through the revision of drafts; and whether there was any follow-up activity after each composition writing session. The interviews were audio-taped, transcribed and analysed to support the data of this study.

The 24 interview sessions with the six students helped to gather information on the students' familiarity of the different themes for the four writing tasks given by their class teacher, the types of scaffolds they gave to their peers and received from their class teacher and peers, how they helped their peers to improve their revisions and vice versa, the dynamics of the teacher-student and student-student interactions during the pre-writing, composing and peer response sessions; their confidence in giving feedback on their peers' work; their willingness to accept ideas and feedback from their class teacher and peers; their perceptions of their class teacher and peer feedback in helping them to improve their revisions; what they have learnt about peer interaction and the process of writing through the revision of drafts; whether the students sought assistance from others to help them improve their revisions; and what the students did after they have submitted the individual final draft of each of their compositions. The interview sessions with the class teacher and the students were audio-taped, transcribed and analysed to gather the necessary information to enrich the data of this study. Two inter-raters were engaged to examine the transcripts of the interview sessions with the class

teacher and students to verify the categorisation of the responses during the interviews. According to Silverman (1993), the reliability of interviews is enhanced with inter-rater reliability in the coding of responses.

The data collected in the form of students' rewrites (first and final drafts of all the four compositions), transcripts of teacher-student and student-student interactions, field notes of in-class observation sessions, and interview transcripts with the class teacher and students were analysed and triangulated to answer the three research questions of this study.

3.5   Data Analysis

The data collected from the various sources (students' rewrites, transcripts of teacher-student and student-student interactions, transcripts of interviews with the teacher and students, and field notes from in-class observation sessions) as mentioned in Section 3.4 were analysed and triangulated. Triangulation from these multiple sources is necessary to ensure the findings in this study are accurate and credible (Creswell, 2005; Krathwohl, 1998). Besides, it builds stability and confidence in how data is interpreted (Freeman, 1989). The formation of categories was based on descriptive statistics. In other words, the data collected were analysed using frequency counts and percentages, and reported in a descriptive manner to answer the three research questions of this study.

3.5.1   Research Question 1: How do the teacher-student and student-student interactions during the peer response sessions help the group members to revise the individual first drafts of their compositions?

To answer Research Question 1, the transcripts of teacher-student and student-student interactions during the peer response sessions were analysed to determine the

patterns of development of ideas that emerged in the interaction process to help the group members revise the individual first drafts of their compositions. Figure 5 below shows how the data collected were analysed to answer Research Question 1.

Figure 5
Data Analysis to Answer Research Question 1

Research Question 1:
How do the teacher-student and student-student interactions during the peer response sessions help the group members to revise the individual first drafts of their compositions?

| Analyse the patterns of development of ideas according to episodes in the transcripts of the teacher-student and student-student interactions during the peer response sessions. | Analyse the transcripts of the teacher-student and student-student interactions during the peer response sessions to investigate whether there is any difference between the roles of the class teacher and peers in assisting the group members to revise the first drafts of their compositions. | Extracts from interview transcripts with the class teacher and students, as well as extracts from field notes of in-class observations were used to support the data. |

Adapt the method of analysis of the patterns of development of ideas according to episodes as used in Lockhart & Ng's (1996) study. Discourse segments were coded in 4 stages:
Stage 1:
- Each segment was coded according to who initiated the discussion.

Stage 2:
- Each segment was coded according to whether there was development of ideas.

Stage 3:
- Classifying discourse segments according to the situation in which the development of ideas occurred.
- Examining how the class teacher and peer scaffolds facilitated learning.

Stage 4:
- Analysing the link between segments.

Two inter-raters were engaged to verify the classification of discourse segments to determine the patterns of development of ideas.

It is important to have an in-depth analysis of the interaction process between the teacher and students as well as among the students as it is the focus of Vygotsky's (1978) theory of learning. It would be interesting to investigate how Vygotsky's view of the social construction of learning that progresses from the 'interpsychological plane' (through teacher-student and student-student interactions) to the 'intrapsychological plane' (within each individual student) applies among the subjects of this

study. The researcher looked for signs of 'intersubjectivity' (joint attainment of meaning between the teacher, students and their peers) and internalisation as learners worked within their 'zone of proximal development' with assistance from the teacher and their peers.

To explore the dynamics of the interaction process, the patterns of development of ideas that emerged during the teacher-student and student-student interactions were analysed according to episodes. This study adapted the method of analysis of the patterns of development of ideas according to episodes as used in Lockhart & Ng's (1996) study. Each episode has a combination of topic and purpose and a change in either or both signals a new episode. These discourse segments were coded in four stages. First, each segment was coded according to who initiates the discussion. Secondly, each segment was coded according to whether or not there was development of ideas during the segment. The third stage involves classifying those segments in which there was development according to the situation in which the development occurred and examining how the class teacher and peer scaffolds facilitated learning. The fourth stage involves analysing the link between segments.

Two inter-raters were engaged to verify the classification of those discourse segments to determine the patterns of development of ideas. One of the inter-raters was the teacher teaching the target group and the other inter-rater was a postgraduate student from a local university, pursuing a Masters Programme in English as a Second Language. Steps were taken to ensure accurate coding and classification of those discourse segments. Firstly, the two inter-raters were trained to code and classify the discourse segments using a tentative list of categories of the patterns of development of ideas gathered after reviewing past research done by Daiute & Dalton (1993); Lockhart & Ng (1995) and Lockhart & Ng (1996) as a guideline (refer to Appendix I for the list of categories of the patterns of development of ideas from past research). Each inter-

rater independently coded and classified 10% of the transcribed teacher-student and student-student interactions which were randomly selected; and then made a comparison to the coding and classification of the discourse segments done by the researcher. Secondly, a discussion amongst the researcher and the two inter-raters was conducted to reach a consensus for any disagreement in the coding and classification of those categories. The inter-rater reliability for coding was assessed using Cohen's Kappa (Cohen, 1960) that is part of the SPSS programme. Cohen's Kappa estimates the degree of consensus between two judges. To establish the inter-rater reliability, the coding done by each rater was compared with the final categories coded by the researcher.

In addition, the researcher also analysed the transcripts of the teacher-student and student-student interactions during the peer response sessions to investigate whether there is any difference between the roles of the class teacher and peers in assisting the group members to revise the individual first drafts of their compositions. The researcher investigated this aspect as it is in accordance with Vygotsky's (1978) theory of learning that with guidance from adult or more capable peers, a learner would be able to function beyond his or her current developmental level. Moreover, extracts from the interview transcripts with the class teacher and students, as well as extract from the field notes of the in-class observations were used to support the data.

3.5.2 Research Question 2: What are the types of scaffolds provided by the class teacher and peers during the teacher-student and student-student interaction sessions?

To answer Research Question 2, bottom-up data-driven categories of the scaffolds given by the class teacher and peers were drawn from the transcripts of the teacher-student and student-student interactions during the four pre-writing and composing of the first draft sessions, the transcripts of the teacher-student and student-student

interactions during the four peer response sessions, the students' first drafts which contained the peer written comments jotted down before the commencement of the peer response sessions, and the interview transcripts with the teacher and students. The analysis of the categories of scaffolds was done according to episodes and coding. The data were analysed using frequency counts and percentages, and the findings were reported in a descriptive manner. Figure 6 below shows how the data collected were analysed to answer Research Question 2.

Figure 6
Data Analysis to Answer Research Question 2

Research Question 2:
What are the types of scaffolds provided by the class teacher and peers during the teacher-student and student-student interaction sessions?

Bottom-up data driven categories of class teacher and peer scaffolds were drawn by:
- analysing the transcripts of the teacher-student and student-student interactions during:
  - ❖ the pre-writing and composing of the first draft sessions,
  - ❖ the peer response sessions

Bottom-up data driven categories of the peer scaffolds given before the commencement of the peer response sessions were drawn by:
- analysing the first drafts of the students' compositions.
(Analysis was done according to episodes and coding).

Examine the teacher instructions given during the pre-writing stage of all the composition writing sessions for any potential influence on the interaction among the peers and in the revision of the first drafts (that is, 24 first drafts and 24 final drafts) of all the four compositions.

Extracts from interview transcripts with the class teacher and students, as well as extracts from field notes of in-class observations were used to support the data.

Identify the types of scaffolds provided by the class teacher and peers:
- used frequency counts and percentages
- reported in a descriptive manner

Compare and contrast the types of scaffolds provided by the class teacher, the high and intermediate-proficiency level students - to investigate if there is any difference between the scaffolds provided by the class teacher, the high and intermediate-proficiency level students to help their group members to compose and revise the individual first drafts of all the four compositions.

Two inter-raters were engaged to analyse and verify the categories of scaffolds given by the class teacher and peers

The researcher also examined if there is any difference between the scaffolds provided by the class teacher, the high and intermediate-proficiency level students to

help the group members compose and revise the individual first drafts of all their compositions. This was done by comparing and contrasting the types of scaffolds provided by the class teacher, the high and intermediate-proficiency level students. The difference in the types of scaffolds given to the students of different proficiency levels would indicate the different levels of internalisation among the students. This complies with Vygotsky's (1978) theory of learning that learners function at different pace according to their own 'zone of proximal development'.

In addition, the researcher examined whether the teacher instruction given during the pre-writing stage of each composition writing session has any influence on the interaction among the peers and in the revision of the individual first drafts of their compositions. This was done by comparing the 24 first drafts and 24 final drafts of the students' compositions. This is because according to Vygotsky's (1978) theory of learning, in order for learning to occur, instruction needs to precede development.

Two inter-raters were engaged to analyse and verify the categories of scaffolds given by the class teacher and peers. The two inter-raters engaged in verifying the categories of scaffolds given by the class teacher and peers were the same inter-raters engaged in verifying the coding and classification of the pattern of development of ideas in the spoken discourse. Steps were taken to ensure accurate categorisation of scaffolds given by the class teacher and peers. Firstly, the two inter-raters were trained to categorise the scaffolds given by the class teacher and peers using two lists of the types of class teacher and peer scaffolds gathered after reviewing past research as a guideline (refer to Appendices J and K for lists of the types of class teacher and peer scaffolds from past research). Each inter-rater independently categorised 10% of the transcribed teacher-student and student-student interactions which were randomly selected for the categories of class teacher and peer scaffolds; and then made a comparison to that done by the researcher. Secondly, a discussion amongst the researcher and the two inter-

raters was carried out to reach a consensus for any disagreement in the categorisation of the class teacher and peer scaffolds. The inter-rater reliability for categorisation was assessed using Cohen's Kappa (Cohen, 1960) that is part of the SPSS programme. To establish the inter-rater reliability, the categorisation done by each rater was compared with the final categories of the class teacher and peer scaffolds done by the researcher.

Moreover, extracts from the interview transcripts with the class teacher and students, as well as extracts from the field notes of the in-class observations were used to support the data.

3.5.3   Research Question 3:   How do students revise the first drafts of their compositions based on the class teacher and peer feedback?

To answer Research Question 3, the researcher analysed the students' final drafts (that is, a total of 24 drafts) of all the four compositions and match with the verbal comments of the class teacher and peers in the transcripts of the teacher-student and student-student interactions during the peer response sessions, as well as the class teacher and peer written comments made on the students' individual first draft of their compositions to examine how students revise the first drafts of their compositions. The researcher also compared the first and final drafts (that is, a total of 48 drafts) to determine whether there is any improvement made on the individual final drafts of all the students' compositions. Any correct revision made on the individual final drafts of the compositions as a result of the class teacher and peer feedback was counted as an improvement. Bottom-up data-driven categories of revisions made by the students were determined through comparison of the students' first and final drafts of all the four compositions. Faigley & Witte's (1981) taxonomy of revision changes as described in detail in Section 3.4.3 was used as a guide to categorise the types of revisions made on all the final drafts (that is, a total of 24 drafts) of the four compositions. By examining
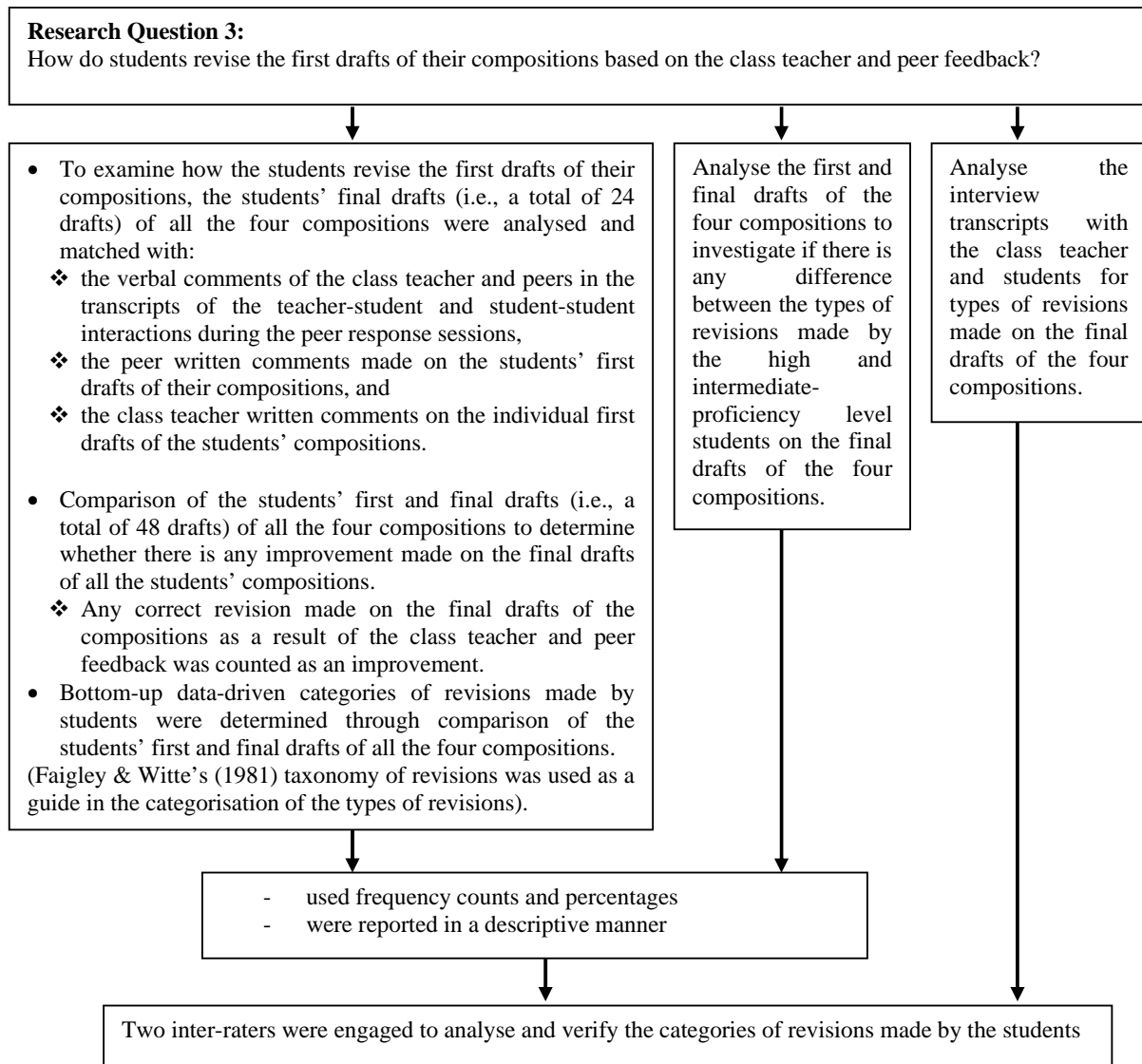
how the students revise the first drafts of their compositions, the researcher would be able to discover how the students worked within their 'zone of proximal development', to investigate whether learning has taken place from the 'interpsychological plane' to the 'intrapsychological plane', whether internalisation has taken place and whether students were able to function at a higher level on their own by transforming the rules and concepts learnt to the new writing tasks at hand. This is in line with Vygotsky's (1978) notion of the higher mental functions in his general genetic law of cultural development that initially a learner needs guidance from an adult or more knowledgeable peers to assist him to function beyond his or her current developmental level but after the learner has internalised the rules and concepts learnt, he or she will be able to operate at higher level independently. Figure 7 as displayed on the following page shows how the data collected were analysed to answer Research Question 3.

Besides, the first and final drafts of all the four compositions were analysed to investigate if there is any difference between the categories of revisions made by the high and intermediate-proficiency level students on the individual final drafts of their four compositions based on the feedback (verbal and written) of the class teacher and peers. The data were analysed using frequency counts and percentages and reported in a descriptive manner. In addition, the interview transcripts with the class teacher and students were analysed and triangulated to support the data.

Two inter-raters were engaged to analyse and verify the categories of revisions made by the students. The two inter-raters engaged in verifying the categories of revisions made by the students were the same inter-raters engaged in verifying the categories of the class teacher and peer scaffolds. Steps were taken to ensure accurate categorisation of revisions made by the students. Firstly, the two inter-raters were trained to categorise the revisions made by the students. Faigley & Witte's (1981) taxonomy of revision changes as described in detail in Section 3.4.3 was used as a guide to categorise the

Figure 7
Data Analysis to Answer Research Question 3

Research Question 3:
How do students revise the first drafts of their compositions based on the class teacher and peer feedback?

- To examine how the students revise the first drafts of their compositions, the students' final drafts (i.e., a total of 24 drafts) of all the four compositions were analysed and matched with:
  - ❖ the verbal comments of the class teacher and peers in the transcripts of the teacher-student and student-student interactions during the peer response sessions,
  - ❖ the peer written comments made on the students' first drafts of their compositions, and
  - ❖ the class teacher written comments on the individual first drafts of the students' compositions.

- Comparison of the students' first and final drafts (i.e., a total of 48 drafts) of all the four compositions to determine whether there is any improvement made on the final drafts of all the students' compositions.
  - ❖ Any correct revision made on the final drafts of the compositions as a result of the class teacher and peer feedback was counted as an improvement.
- Bottom-up data-driven categories of revisions made by students were determined through comparison of the students' first and final drafts of all the four compositions.
(Faigley & Witte's (1981) taxonomy of revisions was used as a guide in the categorisation of the types of revisions).

Analyse the first and final drafts of the four compositions to investigate if there is any difference between the types of revisions made by the high and intermediate-proficiency level students on the final drafts of the four compositions.

Analyse the interview transcripts with the class teacher and students for types of revisions made on the final drafts of the four compositions.

- used frequency counts and percentages
- were reported in a descriptive manner

Two inter-raters were engaged to analyse and verify the categories of revisions made by the students

types of revisions made on all the final drafts (that is, a total of 24 drafts) of the four compositions. Each inter-rater independently categorised 10% of the transcribed teacher-student and student-student interactions which were randomly selected for the types of revisions made by the students on the individual final drafts of each of the students' compositions. This was followed by a comparison made to that of the coding and classification done by the researcher. Secondly, a discussion amongst the researcher and the two inter-raters was carried out to reach a consensus for any

disagreement in the categorisation of the types of revisions made by the students on the individual final drafts of each of the students' compositions.

The inter-rater reliability for categorisation was assessed using Cohen's Kappa (Cohen, 1960) that is part of the SPSS programme. To establish the inter-rater reliability, the categorisation done by each rater was compared with the final categories of the types of revisions made by the students on the individual final drafts of each of the students' compositions done by the researcher.

3.5.4   Establishing Reliability in Coding and Categorisation

The researcher carried out 'respondent validation' of the student-student interaction during the pre-writing sessions and peer response sessions to the first drafts of all the students' compositions to check that the findings are dependable (see Section 3.4.2 and Section 3.4.4). Besides that, the reliability of the coding and categorisation of the pattern of development of ideas; the categorisation of the types of class teacher and peer scaffolds during the teacher-student and student-student interactions; the categories of revisions on the students' final drafts of their compositions, and the categories of the responses of the interviews with the class teacher and students were established by two raters following a procedure as mentioned earlier in Section 3.5.1, Section 3.5.2, Section 3.5.3 and Section 3.4.6. Denzin & Lincoln (1994) pointed out that the use of inter-rater helps to strengthen the reliability of the findings. The inter-rater reliability for coding and categorisation was assessed using Cohen's Kappa (Cohen, 1960) that is part of the SPSS programme. Cohen's Kappa estimates the degree of consensus between two judges. Consensus estimates are used as the data are nominal in nature. The consensus estimates for evaluating the quality of inter-rater reliability is that they should be 70% or greater (Stemler, 2004). To establish the inter-rater reliability, the coding done by each rater was compared with the final categories coded by the researcher.