THE EFFECTS OF PEER- VERSUS SELF-EDITING

ON LEARNER AUTONOMY IN ESL WRITING

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Abstract

This thesis reports on an action research study carried out with students attending an English medium university. The action research comprised three cycles, each presented here as a Study. Study One, which investigated the effects of peer-editing on students' revised drafts as well as on new essays, revealed that the students did not benefit from peer feedback in improving their revised drafts. However, peer-editing helped them write new better quality essays. Results of Study One led to Study Two, which investigated the reasons for the students' failure to benefit from their peers' feedback in revising their essays. It showed that the students' culture of learning played a major role in their giving and receiving of peer feedback. The insight gained from Study Two led me to modify my method of teaching peer-editing before embarking on Study Three, which investigated the same questions as Study One but with two new aspects: 1) Study Three employed an experimental group which engaged in peer-editing, and a comparison group which practiced self-editing, and compared the effects of peer-editing to that of self-editing on the students' writing. 2) It also tested the students' ability to correct specific types of language error. Compared to the comparison group, the experimental group significantly improved their writing in revised drafts as well as in new essays. Since both groups received teacher instruction, but only the experimental group had engaged in peer-editing, these results may be attributed to peer-editing. More specifically, the experimental group significantly reduced rule-based language errors in revised drafts but not in new essays. However, non rule-based errors were not significantly reduced either in revised drafts or in new essays. The thesis grounds the results of this action research study in a socio-cognitive theoretical framework of Second Language Acquisition. The study contributes to research by demonstrating the important role of both teacher intervention and peer interaction in developing the students' writing skills in a way which may lead them to become autonomous writers. It also has important pedagogical implications for teachers as it reveals the benefit of correcting specific, rather than all, language errors in order to bring about some language development in their students' linguistic knowledge.

KEY WORDS

Peer editing

Peer feedback

Self editing

Language errors

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Glossary/Abbreviations

Peer Feedback: Comments given by peers

Rule-based errors: Errors that may be corrected by applying grammar rules

Non Rule-based errors: Errors that may not be corrected by applying grammar rules

Trained Peer-Editing: Students commenting on each other's writing when they have been trained to do so

Trained Self-Editing: Students commenting on their own writing when they have been trained to do so

FFI: Form Focused Instruction

Pr. Agr.:   Pronoun Agreement

S/V Agr.:   Subject/Verb Agreement

SS: Sentence Structure that is awkward but not a fragment

WW: Wrong Word

CHAPTER 1. INTRODUCTION

1.1 The Nature of the Research Problem

Being an ESL teacher for the past 23 years, I have often been frustrated by the fact that my students' writing abilities were not improving despite my efforts to develop their skills by pointing out the criteria for good writing and exposing them to model texts. I surveyed the literature for suggestions that would help me involve them in their own learning and learnt about the technique of peer-editing. Peer-editing is a method of essay revision which involves students in reading and commenting on each other's writing in an effort to improve its quality. Peer editing is an old technique that became popular in L1 (Bruffee, 1984; Elbow, 1973; Nystrand, 1989) and L2 writing classrooms (Manglesdorf and Schlumberger, 1992; Paulus, 1999; Stanely, 1992; Villamil and De Guerrero,1996) as a result of a 'paradigm shift' (Hairston, 1982) in the teaching of composition from a focus on writing as a finished product to writing as a process. DiPardo and Freedman (1988) argue that two main features of the new paradigm, namely writing in stages (pre-writing, writing, and revising), and an emphasis on the rhetorical principle of audience, have promoted the use of peer editing in order to help students revise their compositions. Other influential factors leading to the popularity of peer editing according to Connor and Asenavage (1994) are an increased awareness of writing as a social act (Nystrand, 1989) and of peer editing as a method of collaborative learning (Bruffee,1984). Unfortunately, the research studies conducted on peer editing report conflicting results regarding its success in developing students' writing skills (see 2.7 for a review of the literature on peer editing). Accordingly, I decided to carry out action research on my students to test the efficacy of peer-editing in an ESL context. I also wanted to determine whether or not peer-editing is better than self-editing in improving the overall quality of revised drafts and in creating in my students a sharp awareness of good writing skills, which would allow them to improve their writing of new essays. If so, peer-editing would warrant the extensive time and effort spent teaching it. After all,

> the ultimate aim of any form of feedback should be to move students to a more independent role, where they can critically evaluate their own writing and intervene to change their own processes and products where necessary'
>
> (Hyland & Hyland, 2006a, p. 92).

The action research included three cycles. Each cycle brought about new insights, which in turn yielded different questions to be investigated in the next (see 1.6). I will refer to the first cycle as 'Study One', the second cycle as 'Study Two', and the third cycle as 'Study Three' respectively, and will refer to the whole research as the overall study. Study One examined one group of students (Group 1), while Study Two examined another group (Group 2). Neither study involved a comparison (control) group. Study Three, however, examined two groups, one serving as the experimental group (Group 3) and the other as the comparison group (Group 4). Below is a brief summary of the overall study, which will be discussed in depth in Chapter Four.

1.2 Overview of the Overall Study (Action Research)

To determine the effects of peer-editing on my students' writing ability, the first cycle of research involved an exploratory pilot study that examined three questions. The first question investigated whether good or poor peer feedback (feedback quality) received on students' first drafts affects the writing quality of the revised second drafts. The second research question enquired about the effect of peer-editing on the students' subsequent new essays. 'New essays' refer to essays on which students had not received peer feedback. The third question examined students' opinions about peer-editing. Results of the pilot study paved the way for the next two cycles of research. Study Two (the second cycle) investigated the effects of the students' small classroom culture on their engagement in peer-editing and interviewed the students to seek their opinions about peer-editing. Moreover, Study Three (the third cycle) employed an experimental and a comparison group to examine the overall effects of trained peer-editing versus trained self-editing on the students' revised and new essays. It also investigated the effects of peer-editing versus self-editing on reducing certain rule-based and non rule-based language errors as well as interviewed the two student groups to seek their opinions on peer-editing and self-editing. Analysis of the results generated by the three studies may have useful implications for teaching practice.

1.3 Population and Sampling

A population is 'the set of individuals about which … the researcher want[s] to be able to generalise' (Fogelman, 2002, p. 97). In this overall study, the population is composed of the students attending an English 3 course, a freshman-level course which I taught at an English medium university in Lebanon. It is the third course in a sequence of five English courses; three taken at the freshman level and two at the sophomore level. Students placed in English 3 should have scored at least 500 on the SAT, 263 on TOEFL (computer-based), 600 on the university's English Entrance Exam (EEE), or passed another pre-requisite course.

When formulating a research sample, there are two choices: probability (random) or non-probability sampling. The research sample of the present study was constituted using non-probability sampling in order to include all the students in my class. Non-probability sampling includes convenience, purposive/judgemental, quota, dimensional, and snowball sampling (Fogelman, 2002). Of these, convenience sampling was the most natural option for this overall study since I wanted to examine my own students and monitor their engagement in peer-editing. Accordingly, participants in this overall study were four groups of students who attended English 3. The overall study extended over a period of four semesters.

The first group of English 3 included 24 students. Four of them withdrew from the course, so data was collected from 20 students (7 males and 13 females). Of the 20 students, 18 were Lebanese, one was Jordanian, and another was Syrian. The second group included 24 students (15 males and 9 females). Of the 24 students, there were 20 Lebanese, one Qatari, one Jordanian, one Syrian, and one Canadian. The third group had 23 students but one withdrew, so data was collected from 22 students (10 males and 12 females). The fourth group had 21 students of which 3 withdrew, so data was collected from 18 (13 males and 5 females). Students in Study Three were all Lebanese because this stage of data collection took place after the July 2006 war on Lebanon. Security reasons frightened foreign students from studying in Lebanon. As a result, my English 3 classes in the year 2006-2007 had no foreign students. Student ages of all four groups ranged between 18 and 24, with the majority between 19 and 20 (see Table 1).

Table 1: Participants in the Three Studies

	Study 1 (Group 1)	Study 2 (Group 2)	Study 3	
			Experimental Group (Group 3)	Comparison Group (Group 4)
Total number of students	20	24	22	18
Nationality	18 Lebanese, 1 Jordanian, 1 Syrian	20 Lebanese, 1 Qatari, 1 Jordanian, 1 Canadian, 1 Syrian	Lebanese	Lebanese
Gender	7 (M); 13 (F)	15 (M); 9 (F)	10 (M); 12 (F)	13 (M); 5 (F)
Age	18-23	19-24	19-21	18-23

1.4 The Classroom Approach

In English 3, the students learnt, over a period of 15 weeks, critical analysis of argumentative texts and wrote argumentative essays. The four groups under study met three times a week for 50-minute class periods. In the first class period, all four groups of students were given the course syllabus, which included a detailed statement of course objectives, learning outcomes, teaching methodology, university attendance policy, class readings, graded writing assignments, and the course grade distribution. In addition, the students received the essay grading rubric (Appendix A). As noted, the overall study took place over a period of four semesters (16 months). Table 2 summarises the writing process that took place in each of the three studies as discussed below.

Table 2: The Three Studies

Class Period	Semester 1, Study 1 (Group 1)	Semester 2, Study 2 (Group 2)	Study 3	
			Semester 3 Experimental Group (Group 3)	Semester 4 Comparison Group (Group 4)
1st Class Period (50 minutes)	First draft	First draft	First draft	First draft
2nd Class Period (50 minutes)	• Peer-editing (15 min) • Second draft (30 min) • Submit 1st & 2nd drafts plus peer-editing form	Peer-editing	Peer-editing	Self-editing
3rd Class Period (50 minutes)		• Second draft • Submit 1st & 2nd drafts plus peer-editing form	• Second draft • Submit 1st & 2nd drafts plus peer-editing form	• Second draft • Submit 1st & 2nd drafts plus self-editing
End of Semester	Self-edited Final exam essay (two drafts)	Self-edited Final exam essay (two drafts)	Self-edited Final exam essay (two drafts)	Self-edited Final exam essay (two drafts)

Early in each semester, a diagnostic essay was written by each group to determine the students' language ability. Students in Study One and Study Two (Groups 1 and 2) were trained in peer-editing essay content and organisation (see Chapter Four for details), while students in the experimental and comparison groups of Study Three (Groups 3 and 4) were trained to edit specific language errors as well as content and organisation. Hence, Study Three differed from Study One and Study Two in addressing language errors in addition to content and organisation. Moreover, the treatment given to the experimental and comparison groups in Study Three was also different. The experimental group practiced peer-editing, while the comparison group practiced self-editing.

In Study One, the students took two class periods to write and peer-edit each of their essays. They used the first class period to write a complete first draft. In the second class period, the students spent the first 15 minutes editing each other's essays and the remaining 35 minutes revising their own essays in response to their peer's feedback. However, in the next two studies, having noticed through repeated class observation that 15 minutes were insufficient for the students to edit their peers' essays, I decided to give the students a full class period (50 minutes) for peer-editing and another period for revising their own essays. Hence, the students in Study Two and Study Three wrote each of their essays over three class periods (see Table 3). In both studies, the students wrote in the first period their first draft, which was not graded. In the second period, (except for group four, who did self-editing) the students paired off; they read each other's essays, discussed the strengths and weaknesses of these essays in terms of content and organization for Study Two and content, organization, and language for Study Three, and requested clarification and correction where necessary. Then they filled in an editing form that included the components of the written essays (Appendix B). In the third class period, the students wrote a second draft in response to their peers' feedback and submitted the two drafts as well as the editing form. At the end of the semester, all four groups of students wrote a final exam essay in two drafts.

1.5 Research Aims

The overall study aimed to examine the following issues:

- the quality of trained peer feedback and its effect on the quality of the students' revised and new essays,
- the role of the students' small classroom culture in determining the extent to which they engage in giving and receiving peer feedback
- the effect of trained peer-editing (giving and receiving peer feedback) versus that of trained self-editing on the quality of revised essays
- the effect of trained peer-editing versus that of trained self-editing on empowering students to improve the overall quality of new essays (that have not received any teacher or peer feedback)
- the effect of trained peer-editing versus that of trained self-editing on reducing rule-based language errors in revised and new essays
- the effect of trained peer-editing versus that of trained self-editing on reducing non rule-based language errors in revised and new essays
- the students' opinions of trained peer-editing and trained self-editing as revision methods of essay writing

1.6 Research Questions

The aims above gave rise to the following research questions:

- Study One:

    1) Does the quality of trained peer feedback influence the quality of the revised draft?

    2) Does the engagement in trained peer-editing create student awareness of good writing and hence improve the students' ability to write new essays?

    3) What are the students' opinions of trained peer-editing as a revision method of essay writing?

- Study Two:

    4) How does the students' small classroom culture influence their engagement in giving and receiving peer feedback?

5) What are the students' opinions of trained peer-editing as a revision method of essay writing?

- Study Three:

6) Do the students improve the overall quality of their revised drafts due to teacher instruction in essay revision and editing or to trained peer feedback on their essays?

7) Is trained peer-editing or trained self-editing more successful in reducing the percentage of rule-based language errors in revised drafts?

8) Is trained peer-editing or trained self-editing more successful in reducing the percentage of non rule-based language errors in revised drafts?

9) Does trained peer-editing or trained self-editing better enable the students to improve the overall quality of new essays that have not received any teacher or peer feedback?

10) Is trained peer-editing or trained self-editing more successful in reducing the percentage of rule-based language errors in new essays?

11) Is trained peer-editing or trained self-editing more successful in reducing the percentage of non rule-based language errors in new essays?

12) What are the students' opinions of trained peer-editing as a revision method of essay writing?

13) What are the students' opinions of trained self-editing as a revision method of essay writing?

Table 3 provides an overall picture of the three studies and the research questions. The following is a list of abbreviations used in the table.

PF = trained peer feedback   PE = trained peer-editing (Note: PF is a component of PE)
SE = trained self-editing   DR = draft revision
NE = new essay   SCL= Students' culture of learning
TI= teacher instruction

Table 3. Questions Regarding the Effect of PE and SE on Students' Writing

Study 1			
Editing/ Feedback	**DR**	**NE**	**Questions**
PF quality	Overall quality		**1**. Does the quality of trained peer feedback influence the quality of the revised draft?
PE		Overall quality	**2**. Does the engagement in trained peer-editing create student awareness of good writing and hence improve students' ability to write new essays?
Study 3			
PF or TI?	Overall quality	**6**. Are improvements in the overall quality of students' revised drafts due to teacher instruction in essay revision and editing or to trained peer feedback on their own essays?	
PE	% rule-based error reduction?		**7.** Is PE or SE more successful in reducing the percentage of rule-based language errors in the revised draft?
SE	% rule-based error reduction?		
PE	% non rule-based error reduction?		**8.** Is PE or SE more successful in reducing the percentage of non rule-based language errors in the revised draft?
SE	% non rule-based error reduction?		
PE or SE?		Overall quality	**9**. Does PE or SE better enable students to improve the overall quality of NEs that have not received any teacher or peer feedback?
PE		% rule-based error reduction?	**10.** Is PE or SE more successful in reducing the percentage of rule-based language errors on NEs?
SE		% rule-based error reduction?	
PE		% non rule-based error reduction?	**11.** Is PE or SE more successful in reducing the percentage of non rule-based language errors on NEs?
SE		% non rule-based error reduction?	

Questions about the students

Study 1
3. What are the students' opinions of trained PE as a revision method in essay writing?
Study 2
4. How does SCL influence student engagement in giving and receiving PF?
5. What are the students' opinions of trained PE as a revision method in essay writing?
Study 3
10. What are the students' opinions of trained PE as a revision method in essay writing?
11. What are the students' opinions of trained SE as a revision method in essay writing?

1.7 Importance of the Overall Study

The overall study aims to shed light on the factors involved in improving students' ESL writing skills. Study One introduces peer-editing in the writing classroom to examine the

role of student engagement in their own learning and its effect on their writing skills. On the other hand, Study Two illuminates the significance of gaining insight into students' background and small classroom culture in order to allow teachers to address and accommodate their students' learning needs, while Study Three compares the effects of trained peer-editing to trained self-editing in improving the students' writing ability. Thus, it compares the roles of teacher instruction and peer feedback in developing the students' writing. Moreover, in addition to its focus on content and organisation, Study Three examines the students' ability to peer-edit and possibly reduce specific language errors, an angle that has not been previously discussed in the literature. Furthermore, it reveals which of the language errors under investigation are easier for the students to revise and reduce in their writing. Knowing this may have important pedagogical implications for teachers who often attempt to correct all language errors in their students' essays. Such knowledge may encourage teachers to address these errors in their classes, which may bring about some language development in their own students' linguistic knowledge.

Finally, the overall study may play a pedagogical role in encouraging teachers to engage in action research in order to find solutions to problems in their classrooms. It shows how teachers may investigate an issue, gain insight into it, adapt their teaching practice in light of the new insight and thus provide students with better teaching quality. Furthermore, this overall study may encourage teachers to empower students to assume responsibility for their own learning and encourage them to take essay revision seriously.

1.8 An Overview of the Thesis

Chapter One, Introduction, has explained the nature of the present research problem, the objectives of the overall study, the research sampling, the classroom approach, the research questions to be examined, and the possible contributions of this overall study to research. Next, Chapter Two, Literature Review, provides the theoretical background for this overall study by discussing several theories which may explain its findings, namely Vygotsky's sociocultural theory (Donato, 2000; Lantolf, 2000), Anderson's and McLaughlin's cognitive theories (Ellis, 1994; Mitchell and Myles, 2004), Van Patten's input processing theory (Van Patten, 1996, 2002) and constructivism (Kaufman, 2004; Yang and

Wilson, 2006). The chapter also offers an extensive literature review of the different factors investigated in studies on peer-editing. It reviews studies investigating the effects of trained and untrained peer-editing on the students' feedback and on writing quality as well as reviews studies examining the effects of self-editing. Chapter Three discusses the mixed-method research design (action research and a quasi-experiment), trustworthiness and authenticity of action research, and the qualitative and quantitative methods of data collection used. Chapter Four explains in detail why each of the studies was carried out and how one led to the other. It also explains the methods and tools used to collect data, and the tests and data analyses carried out in each cycle to answer the specific research questions. Chapter Five interprets the results of the three studies. It relates them to previous research studies and to theories of language acquisition. The limitations of the methods of data collection used and the generalisability of the findings are also discussed. Finally, Chapter Six summarises the overall study, points out the significance of the results to teaching practice, and offers suggestions for future research.

CHAPTER 2. LITERATURE REVIEW

2.1 Conceptual Framework

A good starting point to determine whether peer-editing may be used to improve student writing and/or promote learner autonomy is a careful examination of theories of language acquisition that may be applied to the learning of writing. A key theory that has been applied to Second Language Acquisition (SLA) is Vygotsky's (1978) sociocultural theory, which considers that social interaction and mediation best explain learning, including the process of language development, while SLA theories, such as Anderson's (1983, 1985) Adaptive Control of Thought (ACT*), McLaughlin's (1987, 1990) information processing model and Van Patten's Input Processing Theory cite cognitive factors to explain language acquisition. On the other hand, some researchers advocate a heterogeneous approach to SLA (Ellis, 1994; Firth and Wagner, 1997, 1998; Thorne, 2000), which combines social and cognitive explanations of second language learning. An example of this approach is constructivism (Kaufman, 2004). Below is a critical analysis of the above theories, which may helped me to interpret my data and to find out whether or not peer-editing facilitates the development of ESL writing and promote autonomous learning.

2.2 The Sociocultural Theory of Language

Sociocultural theory was originally proposed by Vygotsky in 1930. It was translated into English in 1978 (Vygotsky, 1978) but only recently gained impact in the field of SLA due to the growing power of constructivist approaches to education (see 2.6 below), which capitalize on students' involvement in their own learning and promote learner autonomy. Vygotsky discusses the acquisition and development of L1 skills among children, and points out a number of key ideas regarding language learning. To start with, Vygotsky (1978) states that learning is a mental process that requires *mediation*; i.e. the human mind depends on people as well as on language and signs to regulate relationships with others. Thus, social development occurs with external assistance in social interaction. When learners engage in supportive dialogue that helps them reach higher levels of performance than they are able to achieve on their own, this assistance is called *scaffolding* (Woods et al. in Mitchell and Myles, 2004). Vygotsky argues that successful assistance occurs between a learner and an adult or a

learner and more capable peers, provided this assistance is within the learner's Zone of Proximal Development (ZPD). He defines ZPD as the difference between what a person may achieve alone and what he/she may achieve when aided by someone. When assistance occurs within the ZPD,

> learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his own environment and in cooperation with his peers. Once these processes are internalised, they become part of the child's internal achievement'

> > (Vygotsky, 1978; p.90).

To gain understanding of this process of human development, Vygotsky advocates a microgenetic analysis of mediated social interaction in order to capture the elements of acquired knowledge as they occur.

Recently, researchers working within the framework of Vygotsky's sociocultural theory have examined the principles of this theory to see whether they apply to adult L2 learners. A study by Aljaafreh and Lantolf (1994) found that effective assistance within the ZPD may occur between an adult L2 learner and an expert who would be skillful enough to determine the learner's ZPD. Other L2 studies that employed microgenetic analyses of peer interactions (Donato, 1994, 2000; Guerrero and Villamil, 2000; Ohta, 2000) have shown that adult learners working collaboratively together may also identify each other's ZPD (see 2.2.1 below). These studies have also shown that assistance should not only be within the learners' ZPD, but also be *contingent* and *graduated* in order to be effective (Aljaafreh and Lantolf, 1994; Ohta, 2000; 2001). Contingent assistance is help given according to need. Students should not be given assistance in tasks they can already do alone. On the other hand, graduated assistance means that the level of assistance should be commensurate with the learner's level of need. Too little assistance renders a task frustrating for the learner (Yang and Wilson, 2006), while too much of it may make it unchallenging or may even retard 'self-repair' (Van Lier, 1988 in Aljaafreh and Lantof, 1994, p.211). Thus, the above L2 studies have established that not all interaction leads to learning. Interaction and mediation must meet certain conditions to result in learning.

Another key concept presented by sociocultural theory is learner *agency*. Thus, an assigned activity may or may not be successful depending on how the learners engage in it and how they view it, for activities may change in the course of their implementation into other activities (see Lantolf, 2000; Yang and Wilson, 2006). This concept is elaborated in activity theory, which was developed by Leontiev (1978) based on Vygotsky's work. Activity theory (summed up in Lantolf, 2000) states that human *activity* is motivated by biological or cultural needs which turn to *motives* when they are directed at a specific object. Motives are accomplished through *actions*, which occur under certain conditions of space and time as well as with mediation. Thus, an activity involves a motive, an action(s), and conditions of implementation. These conditions render an activity visible and observable. However, the motive of an activity cannot be determined only by examining the activity itself since the same activity can result from different motives (see example below).

To take the example of peer-editing activity, this activity may be used to accomplish the motive of clarifying a student writer's intended meaning in an essay. Accordingly, a peer-editor may engage in the following actions: interact with the student writer, seek clarifications of ambiguous sentences, point out linguistic forms that hinder comprehension, and/or suggest alternative expressions. Similarly, the same activity/actions of peer-editing may be exercised to achieve a different motive, that of getting a good grade on peer-editing. Likewise, different activities may stem from the same motive. For example, the motive of clarifying a student's intended meaning may be achieved through the activity of peer-editing a student's essay, through teacher feedback on the student's writing, or through writing practice. Hence, activities are differentiated from each other by the motives that bring them about and not by the actions themselves. The same activity (peer-editing) may be achieved through different actions and mediations (oral interaction, filling an editing form), while the same actions (oral interaction, filling an editing form) may result from different motives (getting a high grade, passing a course) and thus constitute different activities. Activity theory has pedagogical implications for teachers who use peer-editing in their writing classrooms. It suggests that some students who engage in peer-editing may not be able to improve their writing because of their own motives and interpretations of the task of peer-editing, rather than the inefficacy of the activity itself.

Other key aspects of sociocultural theory are *private speech* and *inner speech*. Private speech is verbal speech directed to oneself. Learners tend to use private speech in problem-

solving tasks brought about by the process of language learning. Private speech plays an important role in 'mediating thought through the use of social language' (Ohta, 2001, p.12). Thus, language, which is an interpersonal social tool, is used as an intrapersonal cognitive tool. However, Vygotsky (1987) states that private speech transforms to inner speech as learners gain mental ability. In the process of language development, learners internalise social speech for cognitive purposes and as they gain in cognitive ability, private speech undergoes a process of reduction, so linguistic mediation takes place internally without oral verbalization.

Moreover, sociocultural theory considers learning both a social and a cognitive process since learning occurs socially first and then mentally:

> Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, and the development of volition…. Social relations or relations among people genetically underlie all higher functions and their relationships
>
> (Vygotsky, 1981, p.163 in Ohta, 2000, p.54).

To sum up, from the perspective of sociocultural theory, it appears that any teaching method that hopes to develop learning must first offer learners assistance within their ZPD, ensure that assistance is given gradually and according to need, and provide students with learning opportunities that may be accessed socially and mentally. One teaching method that may meet the above conditions is peer-editing. Peer-editing depends on students' interactive dialogue with each other. At first, the dialogue is inter-mental. It occurs between the learner and the peer(s); in other words, it is other-regulated and depends on peer assistance to achieve language development. Moreover, peers may be trained to deliver contingent and graduated assistance within the learners' ZPD (Aljaafreh and Lantolf, 1994; Ohta, 2000, 2001). Accordingly, this overall study will investigate the effect of peer-editing on developing learners' ability to comprehend and later on internalize learning strategies (mental processes), which would empower them to be in control of their own learning i.e. become self-regulated.

Below is a critical review of research studies that adopt sociocultural theory to explain language development yielded by teacher-student collaboration and peer interaction.

2.2.1 Language Development Studies Grounded in Sociocultural Theory

Several ESL researchers have adopted Vygotsky's sociocultural theory to analyse the positive effects of collaborative feedback on second or foreign language learning (Aljaafreh and Lantolf, 1994; Donato, 1994; Donato, 2000; de Guerrero and Villamil, 1994, 2000; Ohta, 2000, 2001; Swain and Lapkin, 2002; Villamil and de Guerrero, 1996). However, these studies vary in their research questions (see below), research methods (analysis of teacher-student interaction, self-reflection, or peer interaction), examined language skills (oral or written), and chosen language (English, French, Japanese), so they cannot be cited as evidence that all kinds of collaborative work bring about successful language development. For example, studies that focus on teacher-student interactions (Aljaafreh and Lantolf, 1994; Donato, 2000) argue that collaborative work between an expert and a learner leads to learning, but they do not discuss the efficacy of peer collaboration in developing written language. On the other hand, studies that do examine collaborative work among peers (Donato, 1994; de Guerrero and Villamil, 1994, 2000; Ohta, 2000, 2001; Swain and Lapkin, 2002; Villamil and de Guerrero, 1996) employ a microgenetic analysis of learners' interactions, analyse the type of scaffolding students receive, and the strategies they use but some do not trace language gain (de Guerrero and Villamil, 1994; Villamil and de Guerrero, 1996). Moreover, except for Ohta's (2001) study, the few studies that trace language improvement as a result of peer interaction (Donato, 1994; de Guerrero and Villamil, 2000; Ohta, 2000, 2001) do not indicate whether the improvement is long-term. Indeed, the above-mentioned studies grounded in sociocultural theory have several limitations (discussed below), which suggest the need for a different method of research, like the one adopted here in Study Three, in order to measure peer-assisted language learning and determine whether it is long-term.

Two important studies examine the effects of teacher-student interaction on language learning (Donato, 2000; Aljaafreh and Lantolf, 1994). Donato (2000) reports on five research projects that demonstrate how sociocultural themes (private speech, mediation, activity theory) may be applied to explain oral language learning. The projects explain how teachers

and students can together build linguistic knowledge through 'instructional conversation' and scaffolding within the students' ZPD. Donato ends his report with three main conclusions: 1) language learning is a *process mediated by semiotic resources* taken from the classroom (italics in original); 'semiotic resources include print materials, the physical environment, gestures, and, most notably, classroom discourse' (Donato, 2000, p. 45). 2) Instruction within the ZPD is central to language learning. 3) Agency matters in the classroom because learners 'transform their world and do not merely conform to it' (Donato, 2000, p. 46). However, since Donato (2000) reports on interactions carried out between students and teachers, not between peers, his study does not provide evidence regarding the success of peer-editing in developing language skills.

Another study that employs sociocultural theory to explain language development resulting from teacher-peer interaction is that of Aljaafreh and Lantolf (1994). They investigate the effects of negative expert feedback given within the ZPD on the development of three students' second language. The study analyzes tutorials involving corrective feedback on specific language errors made by three students in each of their eight essays. At first, each student was asked to correct his/her own language errors then the teacher joined the student in collaborative correction of the errors that the student alone could not correct. The teacher determined each learner's ZPD by asking the student general questions about the sentence containing the language error, moving to more specific and narrowed down questions, and finally providing the correct answer if the student could not provide it. Analysis of the tutorials revealed that the learners, who first depended more on the teacher's help to spot and correct their language errors, eventually moved towards depending on themselves. However, this language improvement resulted from interaction between an expert teacher and a novice student, not from peer interaction. It can perhaps be assumed that teachers are more capable than peers in determining learners' ZPD and bringing about language development. Also, learners may have more faith in teachers than in peers, and so may be more likely to accept their suggested corrections.

On the other hand, a few studies examine interactions between peers from the perspective of sociocultural theory (de Guerrero and Villamil, 1994, 2000; Donato, 1994; Ohta, 2000, 2001; Villamil and de Guerrero, 1996). Donato (1994) examines oral classroom interactions between three students who use the French language to orally construct three

different sentences. Mutual scaffolding results in their collective formulation of these sentences. Donato argues that:

> the students have constructed for each other a *collective scaffold* [italics in original]…the speakers are at the same time individually novices and collectively experts, sources of new orientation for each other, and guides through this complex linguistic problem solving.

(Donato, 1994; p.46)

Later on, the study provides evidence that these students have also acquired individual knowledge of these structures since they were able to use them correctly when no help was given. Accordingly, Donato concludes that peer scaffolding leads to collective as well as individual language development. However, since this study traces the oral language development of three students only, such a statement may be considered an overgeneralization.

While Donato's (1994) study investigated the effects of peer interaction on oral communication in a foreign language, other studies examined peer collaboration in essay writing. A study by de Guerrero and Villamil (1994) examines 40 paired oral interactions carried out during two peer revision sessions to investigate what types of interactions occur between peers as they revise their essays. They classify interactive episodes into three types: on-task, about-task, and off-task. Moreover, they code the episodes according to cognitive and social stages of regulation. Three cognitive stages of regulation are noted: *object-regulated* (controlled by the draft), *other-regulated* (guided by the peer), and *self-regulated* (independent problem-solving), while the social relationships are classified as *symmetrical* (both participants are self-, other-, or object-regulated) and *asymmetrical* (other- vs. self-regulated, other- vs. object-regulated, and object- vs. self-regulated). The study concludes that most interactions were on- task. Moreover, the students had 'continuous access' to lower or higher forms of regulation (object-regulation or self-regulation respectively) depending on several task factors, such as L2 knowledge or awareness of goals. However, the students were often self-regulated, which researchers attribute to the training these students had received prior to each revision session. Although de Guerrero and Villamil's (1994) study analyses peer interactions, it only describes the types of cognitive and social stages of regulation; it does not address the issue of whether peer-editing develops language skills or not.

Accordingly, it does not provide sociocultural evidence regarding the efficacy of peer-editing as a method of writing development.

Villamil and de Guerrero's 1996 study involves the same group examined in their 1994 study. However, this time they investigate the revision activities, the learning strategies, and the social behaviour peers engage in as they peer-edit each other's essays. An analysis of the recorded interactions and the peer-editing forms revealed that peer-editing involved the use of seven distinct social-cognitive revision activities, five different mediating strategies, and four aspects of social behaviour. However, like their 1994 study, this one does not address the issue of whether peer-editing develops language skills or not. Accordingly, it does not provide sociocultural evidence that peer-editing may lead to improved writing.

On the other hand, a third study by the same two researchers (de Guerrero and Villamil, 2000) examines oral interaction in a writing class between one pair of students, where the student whose essay demonstrated better writing skills served as editor of the weaker student's essay. The study, which traced the microgenesis of essay revision skills, revealed that the two learners supported each other. The writer became more independent in writing and revising, while the reader improved in writing, revising, and in giving assistance. The researchers concluded that 'in second language (L2) peer revision scaffolding may be mutual rather than unidirectional' (p.51). Although this study demonstrated better writing skills, it did not indicate whether those skills were retained over a long period of time. Moreover, the study traced the language development of only two students; hence its findings may not be generalized to all peer-editing activity.

Just like de Guerrero and Villamil, (1994, 2000) and Villamil and de Guerrero (1996), Ohta has carried out several studies examining the effects of peer interaction. Ohta (2000) studied the collaborative interactions within the ZPD that occurred between two Japanese learners working on a translation task. A microgenetic analysis showed that both learners 'improved dramatically' and were able to accomplish the translation task fluently and accurately. Hence, her results agree with those of de Guerrero and Villamil (2000). Still, this study has the same limitations as those of de Guerrero and Villamil (2000). It involved only two students, which does not allow generalization of results. Moreover, it did not involve a control group, so the students' reported improvement in producing certain grammatical structures may also be attributed to their earlier practice of these structures, and not to peer-

collaboration. The study also did not indicate whether the reported improvement will stand the test of time. In contrast, Ohta (2001) reports on a longitudinal study, which is uncommon in research involving a microgenetic analysis of oral peer interaction. The study traces the effects of peer interaction on seven students learning Japanese. In commenting on the students' language improvement, Ohta (2001) integrates sociological concepts with cognitive ones (limited working memory and selective attention), a new theoretical approach in such studies, and argues that peer mediation and interaction allows learners to notice and focus their attention on specific linguistic aspects of the language under study and to develop their language ability. However, the study involves only seven students, which limits its findings.

Another study monitoring the effects of peer response is one by Swain and Lapkin (2002). This study examines the effects of reformulation on the writing of two students attending a French immersion class. Reformulation is defined as ' having a native writer of the target language rewrite the learner's essay, preserving all the learner's ideas, making it sound as native-like as possible' (Cohen, 1983, p.4 in Swain and Lapkin, 2002, p.287). In Swain and Lapkin's (2002) study, the students are asked to compose a story based on a jigsaw puzzle and to write that story together. A native speaker reformulates the first draft to reflect native language use while retaining the original meaning. The students compare their first draft to the reformulated one, notice differences between the two drafts and reflect on the corrected language structures. After listening to a taped video showing their interactions as they compare the two drafts, the students are asked to rewrite the story individually. Analysis of the two revised student drafts revealed that the students were able to correctly resolve approximately 78% of the language-related episodes. Although the researchers conclude that reformulation 'is an effective technique for noticing and reflection on language' (p. 298), this study does not convincingly show that peer work results in improved language since the students did not arrive at the correct structures only through collaborating together but also through the seminal help of a native speaker. Instead, this study brought about language development that the students may have achieved had their teacher given them language feedback on their first draft and asked them to revise it in light of this feedback. Peer interaction may be considered effective in bringing about language development when it allows peers to construct correct language structures through intermental negotiation, without the help of an instructor's feedback.

To sum up, the above studies have drawn on major constructs in the sociocultural theory (scaffolding, ZPD, activity theory) to explain the effects of student-teacher or student-student interaction and collaboration on language development. However, they are generally small in scale and descriptive in nature. Subscribing to the qualitative method of inquiry, they mostly analyze student collaboration, and some of them assume that language development has taken place when, in a language related episode, the learners arrive at the correct form. However, these studies do not employ any method of measuring learning. They also do not include control groups that receive different treatments, so it is not clear whether the language development reported in these studies is the result of peer collaboration or teacher instruction and class practice. Hence, it would be premature to conclude that the improvement in language learning reported in the above studies has appeared as a result of peer mediation and interaction. Finally, the above studies are grounded in sociocultural theory, which does not explain the mental processes involved in acquiring a language. Accordingly, with the exception of Ohta (2001), these studies do not discuss which cognitive processes may be involved when peers receive assistance within their ZPD, how the exchanged information might be internalized, or what role attention and focusing play in collaborative learning. To better understand the mental processes and cognitive factors that bring about learning, I will discuss some cognitive theories of SLA below.

2.3 Cognitive Theories of Language Learning

Cognitive theories aim to explain the mental processes that are involved in second language acquisition. They describe information-processing frameworks that outline how new information is stored in short-term memory at first, then in long-term memory and how this information is processed, automatised and restructured with repeated activation (Mitchell and Myles, 2004). Information-processing frameworks hold that learning a language is a complex skill which, like any other cognitive skill, involves mental processes such as problem solving, and that the analysis of these mental processes is necessary to arrive at the way learners mentally represent language rules in order to use them in their L2 performance (Ellis, 1994). Two such cognitive models based on research in the fields of cognitive psychology and information-processing studies in computer science are those of Anderson (1983, 1985) and

McLaughlin (1987, 1990, McLaughlin et.al., 1983) respectively. Below I will discuss them and relate them to peer-editing.

2.3.1 Anderson's (1983, 1985) Adaptive Control of Thought (ACT*)

Anderson's (1983, 1985) Adaptive Control of Thought (ACT*) is an information processing theory of cognition and memory that aims to explain what goes on during the acquisition of a cognitive skill. Anderson deals with three types of memory: a working memory (short-term), and two long-term memories. He also distinguishes between two types of knowledge: *declarative* and *procedural* knowledge. Declarative knowledge represents 'static' information (rules, facts). On the other hand, procedural knowledge represents 'dynamic' information. It is the ability to apply the knowledge of rules or to understand and produce a language. Declarative and procedural knowledge are similar to explicit and implicit knowledge discussed in SLA research. Explicit knowledge refers to linguistic knowledge that learners can consciously describe, while implicit knowledge is one that learners know intuitively but are not able to express. It only appears in their performance (use) of the language (Ellis, 1994).

Anderson (1983, 1985) claims there is a common cognitive system for all complex mental processes requiring cognitive skill. He argues that the ACT* model may be used to explain how students can turn declarative knowledge into procedural knowledge by using facilitative procedures or *production sets*. A production set is composed of a '*condition*' and an '*action*'. The condition contains one or more clauses preceded by IF, and the action has one or more clauses preceded by THEN. These productions are first stored in declarative form but with repeated practice can form production sets and later on become automatic (see example below). In the ACT* model, turning declarative knowledge into procedural knowledge passes through three stages: the *cognitive*, the *associative* and the *autonomous* stages. In the first stage (cognitive stage), learners engage in conscious activity to acquire declarative knowledge about language, such as vocabulary or grammar rules, which consume a large part of the short-term memory. In the second stage (associative stage), students learn how to apply this declarative knowledge; they organise declarative information into production sets by combining several productions together or generalising a rule from them (Ellis, 1994), thus turning this declarative knowledge into procedural knowledge and freeing space in the short-term memory. Sufficient practice of this knowledge renders it automatic

and stores it in the procedural long-term memory (autonomous stage). The following example helps illustrate this procedure. At the cognitive stage, a student may have learned that 'played' is the past tense of 'play', and 'shouted' is the past tense of 'shout. Accordingly, at the associative stage, this student may form the following general rule: "*If* the goal is to form the past tense of a verb, *then* add 'ed' to that verb". At this stage, however, he/she may still produce erroneous structures, such as forming the past tense "buyed" from the verb 'buy'. In the third stage (autonomous stage) of the ACT* model, sufficient practice allows the student to realise the occasions where certain linguistic forms apply ('bought', instead of "buyed"). Practice also makes student performance automatic, thus freeing up short-term memory to acquire new language rules.

However, and in contrast to the claims made by the ACT* model, experienced teachers know that repeated practice of linguistic structures may not lead to their acquisition. Rather, factors such as a student's previous linguistic information and social interaction play a role in language acquisition, yet the ACT* model ignores them. Accordingly, Anderson's generalisation that the ACT* model may be applied to all complex mental processes involving cognitive skill is not necessarily true.

2.3.2 McLaughlin's Information-processing Model

Similar to Anderson's ACT* model, McLaughlin's (1987, 1990, McLaughlin et.al., 1983) information-processing model also considers language learning as the acquisition of a cognitive skill and focuses on processing limitations. According to McLaughlin, due to the constraints of their short-term memory, learners have a limited capacity to process the large amount of information they are bombarded with. As a result, they selectively attend to some of the input provided and maximize their processing ability by practicing a certain skill. At first, processing the skill requires controlled attention, but later on and after sufficient practice, the skill becomes routinised. It is processed automatically and stored in the long-term memory, thus freeing the short-term memory to allow more language learning. Moreover, McLaughlin argues that learners extend their learner capacity for information processing through *restructuring*. Restructuring is defined as the change in knowledge representation from 'exemplar-based to rule-based representation' (McLaughlin, 1990, p.118), which occurs as a result of the constant movement from controlled to automatic

processes. During the process of restructuring, students change their use of previously learnt structures, which may lead to the temporary production of language errors. However, repeated practice of the skill leads to its acquisition and automatic production. Similar to Anderson's ACT* model, this model is limited in that it only provides cognitive explanation to skill acquisition and ignores the role played by social interaction which triggers the cognitive processes.

However, models of skill acquisition, such as Anderson's ACT* model, may be useful frameworks to analyze the acquisition of language learning strategies as well as the acquisition of peer-editing skills (see *2.3.3* and *2.3.4* respectively).

2.3.3 Acquisition of Language Learning Strategies

Bremner (1998), Chamot and O'Malley (1996), Ehrman and Oxford (1995), Green and Oxford (1995), Nyikos and Oxford (1993), and Oxford and Nyikos (1989) found a strong relationship between students' language proficiency and the teaching of language learning strategies (LLS). LLS are defined as 'specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations' (Oxford, 1990, p. 8). However, Oxford and Nyikos (1989) found that students' use of learning strategies 'appeared to be suppressed by the traditional, academic environment of the classroom - a setting which promotes and rewards performance on discrete tasks rather than interactive, communicative efforts' and called for the development of 'a language program which takes into account learners' needs, including the need to gain self control and autonomy through strategy use' (p.297). Accordingly, Oxford (1990) recommended adopting a language program that incorporates an embedded approach to teaching LLS. It involves teaching students in specific learning contexts the use of multiple strategies that would help achieve the objectives of that language program. For example, when reading, students would learn to use learning strategies to understand a text, guess meaning from context, look for main ideas, and find the author's purpose; and when writing, students would use learning strategies to rephrase sentences so as to clarify the writer's intended meaning and to evaluate each other's essays. The embedded approach is said to help learners 'better understand how the strategies can be used in a significant meaningful context: meaningfulness makes it easier to remember the strategies' (Oxford, 1990; p. 206).

On the other hand, a study by Ehrman and Oxford (1995) concluded that the correlation between learning strategies and proficiency was low but attributed this finding to the possibility that 'the distribution of strategy use might have been non-linear', which 'might mean less strategy use by lower proficient students than middle proficiency ones, but higher proficiency students might have automised their strategy so that they were less aware of using them' (p.79). Bremner (1998) found that eleven out of fifty LLS were significantly associated with language proficiency, eight of them cognitive, but concluded that there is no evidence of causality in any one direction between strategy use and proficiency level and that the research conducted does not establish whether strategy use leads to higher proficiency or whether high proficiency level allows students to engage in more strategy use. Thus, he recommended that future research use 'an approach which investigates the effects of very specific strategies on localized aspects of proficiency in a specific context, over a period of time' (p.84).

O'Malley and Chamot (1990) apply Anderson's ACT* model to explain the acquisition of LLS. They contend that these strategies are 'a set of productions that are compiled and fine-tuned until they become procedural knowledge' (p. 43). To achieve proceduralisation and later on automatisation, LLS must first be represented in terms of production systems with a condition (IF) and one or more action (THEN) clauses. One example of such a production system for strategy application is the following:

> IF the goal is to comprehend an oral written text, and I am unable to identify a word's meaning, THEN I will infer the meaning from the text'
>
> (O'Malley and Chamot, 1990; p.52).

Moreover, O'Malley and Chamot consider that acquisition of LLS follows Anderson's cognitive, associative, and autonomous stages of learning. At first, acquisition of these strategies requires a great deal of attention and effort from the learner but with continued practice, they will be performed automatically. While the work of O'Malley and Chamot explains how students acquire learning strategies that facilitate language learning in general, it does not indicate how learners may apply these strategies to learn linguistic structures. Indeed, some linguistic structures may not be regulated into production systems.

2.3.4 Acquisition of Peer-Editing Skills

In an attempt to adopt a language program that incorporates an embedded approach to teaching LLS (Oxford, 1990), investigate the effects of certain strategies on localized aspects of proficiency (Bremner, 1998), and encourage students' autonomy in their learning process (Oxford and Nyikos, 1989), I introduced my students to LLS through the use of peer-editing. Peer-editing is an example of an embedded approach to the use of LLS since students learn to peer-edit essays by using and observing the application of particular LLS. Peer-editing (see *4.1.3*) involves the application of three types of learning strategies, namely cognitive, metacognitive, and social/affective strategies (see O'Malley and Chamot, 1990), which must be used in combination (Oxford, 1990; Ellis, 1995) and must be practiced (Nyikos and Oxford, 1993) in order to yield good results. Peer-editing allows students to plan the response process and focus on the writer's essay (metacognitve strategy); engage in critical reading and writing (cognitive strategy), practice speaking and listening skills (cognitive strategy), gain more ideas on a topic from a different perspective (cognitive strategy), experience less writing anxiety (affective strategy), evaluate each other's work (metacognitive strategy), become more supportive of each other (social strategy), show empathy towards their colleagues (social strategy) and adapt to people with different abilities and learning styles (social strategies).

Observing my students' acquisition of peer-editing skills suggests that, similar to the learning strategies embedded in peer-editing activity, peer-editing skills may be acquired according to Anderson's ACT* model (O'Malley and Chamot, 1990) and seem also to follow Anderson's cognitive, associative, and autonomous stages of learning. In the cognitive stage, the students exert a great deal of attention and effort to learn declarative knowledge (characteristics of good writing skills: grammar rules, organization skills, and social skills). In the associative stage, the students practice peer-editing. They change the declarative knowledge about peer-editing to procedural knowledge by turning language learning strategies into production sets (see O'Malley and Chamot, 1990). Finally, in the autonomous stage, practice allows the students to internalise peer-editing skills and perform them with little effort.

The following example helps illustrate the above process. A teacher teaches students how to engage in peer-editing. She explains that students need to collaborate together politely, read each other's essays, seek the writer's purpose, check whether the ideas in the essay serve that purpose, discuss organisation of ideas, comment on vague sentences, and propose suggestions where possible. The teacher may also instruct students how to fill an editing form that reflects the suggested changes. At first (the cognitive stage), learning all these peer-editing skills seems to require considerable effort and attention from the learners. They struggle to process and understand the instructions, remember them, and then apply them, all within a given time. However, repeated practice of peer-editing may allow students to understand the instructions; thus, remembering them would become easier and applying the steps would require less effort from them and less attention. At this point, these students may have reached the associative stage of skill acquisition and may have turned the declarative knowledge about peer-editing to procedural knowledge. However, students may still make mistakes in editing, like failing to notice problems in organisation or accepting an irrelevant idea. Finally, at the autonomous stage, students would probably have internalised peer-editing skills and may be able to apply them effortlessly. They may be able to help a colleague revise his/her essay.

However, Anderson's model of skill acquisition, which may be applied to the acquisition of peer-editing skills, does not explain how linguistic structures may be acquired nor why students acquire certain language structures earlier than others. This explanation is provided in Van Patten's (1996, 2002) Input Processing Theory, which proposes two major principles that have the potential to explain the way students process linguistic input (see 2.4 below).

2.4 Van Patten's Input Processing Theory

Van Patten (1996, 2002) has developed a model of input processing (IP) that describes the way learners *initially* [italics in original] understand input by making connections between its form and meaning. Van Patten contends that learners have a limited working memory, so they process part of the input during comprehension and turn it into intake, which is used for L2 acquisition. Due to the limitation in working memory, learners depend on content words to help them process the meaning of utterances. This reduces their focus on grammatical

markers and leads them sometimes to wrong processing. To explain how L2 learners process input, Van Patten (2002, p.241) proposes two major principles of input processing (IP) with their corollaries:

Principle 1: The Primacy of Meaning Principle Learners process input for meaning before they process it for form.

 1.a: The Primacy of Content Words Principle Learners process content words in the input before anything else.

 1.b: The Lexical Preference Principle Learners will tend to rely on lexical items as opposed to grammatical form to get meaning when both encode the semantic information.

 1.c: The preference for Non-redundancy Principle Learners are more likely to process non-redundant meaningful grammatical forms before non-meaningful forms irrespective of redundancy.

 1.d: The Meaning-before-non-meaning Principle Learners are more likely to process meaningful grammatical forms before non-meaningful forms irrespective of redundancy.

 1.e: The Availability of Resources Principle For learners to process either redundant meaningful grammatical forms or non-meaningful forms.

 1.f: The Sentence Location Principle Learners tend to process items in sentence initial position before those in final position and those in medial position.

Principle 2: The First Noun Principle Learners tend to process the first noun or pronoun they encounter in a sentence as a subject/agent.

 2.a: The Lexical Semantics Principle Learners may rely on lexical semantics, where possible, instead of word order to interpret sentences.

 2b: The Event Probabilities Principle Learners may rely on event probabilities, where possible, instead of word order to interpret sentences.

 2.c: The Contextual Constraint Principle Learners may rely less on the first noun principle if preceding context constrains the possible interpretation of a clause or sentence. (Van Patten, 2002, p.241)

An application of Van Patten's principles to the language errors in this overall research study may illuminate why student editors and writers find it difficult to correct some language errors. Thus, according to *Principle 1b*, one may hypothesise that student editors and writers would find it difficult to correct subject/verb agreement errors since students will not process the 's' in 3rd person singular verbs as they get its meaning from the singular subject preceding it (see Chapter Five).

In contrast to advocating either social or cognitive approaches to language acquisition, other researchers call for adopting a pluralistic explanation of SLA (see 2.5).

2.5 A Mixed Approach to understanding SLA

Ellis (1994) considers SLA as a 'complex multi-faceted phenomenon… [that offers] different perspectives on reality' (p. 667). Moreover, Firth and Wagner (1997) recommend:

> [a] reconceptualization of SLA as a more theoretically and methodologically balanced enterprise that endeavours to attend to, explicate, and explore, in more equal measures and, where possible, in integrated ways, both *social* and *cognitive* dimensions of S/FL use and acquisition (p.286) [italics in original].

Given their belief that 'cognitive structures are influenced and, indeed, developed through engagement in social activity' (p.92), they do not separate language use and language acquisition and consider the emphasis on the latter over the former as limiting to the understanding of how language functions. Accordingly, Firth and Wagner (1998) call for 'deconstructing such dichotomies as use versus acquisition, sociolinguistics versus psycholinguistics, and language use versus communicative act' (p. 93). Similarly, Thorne (2000) considers that 'it is critical to reinterpret "cognitive issues" as also historical, social, activity- and context-contingent issues. There is a continuum, then, from information/ cognitive processing attentions within SLA to those examining processes of second language interaction and negotiation' (p. 224). This concept of mixing of ideologies brings forth

constructivism in education (Kaufman, 2004), which is rooted in both cognition and social interactions.

2.6 Constructivism

In education, Kaufman (2004) argues that constructivism is a major paradigm that combines cognitive and social processes of learning. The cognitive aspect of constructivism is grounded in Piaget's developmental theory, which emphasizes cognitive development and the individual construction of knowledge. According to Piaget (1970), students construct their own learning based on previous learning experiences (in Kaufman, 2004) and cognitive conflict (Di Pardo and Freedman, 1988), i.e. discrepancy or contradiction between students' beliefs, ideas, and theories (see also Tocalli-Beller and Swain, 2005). This discrepancy pressures students to re-examine their points of view and/or justify their opinions (Di Pardo and Freedman, 1988), thus building knowledge. Hence, Piaget (1970 in Kaufman, 2004, p. 304) considers that learning occurs through reading, listening, and experience and involves three distinct but interrelated processes of *assimilation, accommodation, and equilibrium* [italics in original]. Experiences are 'assimilated and integrated into existing schema or into schema under construction through the process of accommodation' (Kaufman, 2004, p.304). Accommodation is the attempt to adapt to one's environment. As a result of the above processes, a learner gains 'equilibrium, the achievement of new understandings, coherence, and cognitive stability' (Kaufman, 2004, p.304). In other words, learners accommodate and interpret the new input according to their previous knowledge and in a way that is unique to their own learning experiences. Accordingly, two learners receiving the same information may interpret it differently.

Similarly, the cognitive constructs of noticing and focused attention discussed in ACT* also apply in a constructivist approach to learning. Students need to notice discrepancies between their input and the output of others before they can gain new knowledge. Noticing allows students to reflect on the discrepancies, seek to clarify and understand them, in order to restructure their previous knowledge and gain new information (Tocalli-Beller and Swain, 2005).

While the cognitive aspect of constructivism is grounded in Piaget's developmental theory, the social aspect of constructivism is rooted in Vygotsky's sociocultural theory. It considers that students' engagement in a given task and their negotiation of meaning is central to the learning outcome. Accordingly, constructivism advocates a change in teaching practice from a teacher-centered lecturing approach to a learner-centered task-based approach. Rather than passively receiving knowledge from their teacher, students take responsibility for their own learning and make use of social interaction with teachers, peers, and their own environment to build their knowledge. As such knowledge is no longer transmitted from an expert to a novice but rather created by learners according to their needs, their previous educational background and learning experiences. The classroom becomes a place where knowledge is generated instead of delivered. To sum up, a constructivist approach to learning stresses the importance of students' previous knowledge and beliefs, focuses on the learners' metacognitive and self-regulative skills, and emphasises negotiation of meaning.

Tynjälä (1999) who examines the effects of a constructivist approach to writing concludes that 'the more a writing task involves manipulation of the information to be studied, the better the learning outcomes are likely to be' (p.10). Thus, teachers may empower students to construct knowledge through the activities they ask their students to engage in (Tynjälä, 1999). One such activity that helps students reflect on their writing skills is peer-editing. Peer-editing is a hands-on activity that encourages students to interact socially and participate actively in analysing a colleague's essay through the application of metacognitive and cognitive strategies (Oxford, 1990). This activity may lead to learning good writing skills. Nyikos and Oxford (1993) emphasize this point: 'the modelling of strategies by teachers, accompanied by opportunities to practice applying these strategies while building toward communicative use, help students gain greater awareness of their personal learning needs and can help alter misconceptions that keep learners at low proficiency levels' (p. 20-21).

The above review indicates that the assumptions behind a peer-editing approach to writing instruction are essentially constructivist because both peer-editing and the constructivist approach to writing involve the use of social and cognitive processes to promote language acquisition. The social interaction that occurs during peer-editing triggers cognitive

processes such as cognitive conflict, criticism, clarification, and verification, and these processes develop learning. Below is a critical analysis of some studies that have employed peer-editing in the writing classroom in order to evaluate the efficacy of this method in bringing about an awareness of good writing skills.

2.7 Review of Studies on Peer-Editing

Research studies have reported that the use of peer-editing in the ESL classroom has yielded mixed degrees of success. Some researchers consider it ineffective and claim that students are unable to spot weaknesses in their colleagues' essays as they are weak themselves (Allaei and Connor, 1990) that students from certain cultures lack confidence in their editors' ability to edit (Carson and Nelson, 1996), that students have general preference for teachers' feedback over peer-editing (Connor and Asenavage, 1994), and that teachers lack the time necessary to train students in this activity (Leki, 1990). On the other hand, other researchers have recommended the use of peer-editing in the ESL classroom (see *2.7.1 & 2.7.2*) and considered it a cognitive, teachable, task-based skill that is 'invaluable in integrating learning strategies into language instruction' (Chamot, 2001; p. 39). Below is a review of the different peer-editing perspectives that researchers have tackled.

2.7.1 Studies Comparing Trained and Untrained Peer-Editing

One line of studies examining the effects of training on the success of peer-editing has revealed that trained peer feedback has a number of positive qualities that do not appear in untrained peer feedback (Berg, 1999; McGroarty & Zhu, 1997; Min, 2005; Stanely, 1992; Zhu, 1995, 2001). In a study comparing the two types of feedback, Berg (1999) has found that peers who were trained to comment on each other's L2 writing produced more meaning-based changes than those who did not receive training. Similar results appear in McGroarty & Zhu's (1997) L1 study. McGroarty & Zhu (1997) examine the peer feedback of two groups of students, one that has received training in peer-editing and another that has not received training. The study concludes that trained students engage more in turn-taking and have more detailed interactions. Another study that compares the comments of trained and untrained editors found that training in peer-editing results in a greater number of comments which are more relevant and more specific than those resulting from untrained feedback (Min, 2005).

Other studies have arrived at similar results. Stanley (1992) has studied two groups of students. The first group was given sufficient training in peer response, while the other group was just introduced to it. Upon checking the students' responses to their peer's essays, the responses of the well-trained group were found to be more specific than those of the briefly trained group.

Moreover, two studies by Zhu (1995, 2001) agree with those of Berg (1999) and Stanley (1992). Zhu (1995) shows the experimental and control groups a video demonstrating peer-editing, but meets only with the experimental group to train them in giving feedback and seeking clarifications. A comparison of the two groups' peer feedback reveals that the training in peer-editing via teacher conferencing has a significant positive influence on the experimental group's feedback. The conferences help students negotiate meaning and interact positively with each other. In another study, Zhu (2001) compares interaction and feedback in mixed student groups (native and ESL) and concludes that all students need training in peer-editing in order to learn what aspects of the writing to focus on and how to convey their feedback. Hence, the above researchers seem to agree that when students are trained in peer-editing, they provide better feedback in terms of quantity and quality; i.e. they give more comments which are more specific and relevant than those produced by untrained editors.

Another line of studies compared the effects of trained and untrained peer feedback on the number of revisions student writers made on their essays (Min, 2006; Stanely, 1992). In a study that traced the number of revisions resulting from trained and untrained peer feedback, Min (2006) reported that her students made revisions in response to 90% of trained peer review feedback compared to 68% response to untrained feedback. Similar to Min's (2006) findings, Stanley's (1992) above-mentioned study revealed that the first group of student writers, who had received training in peer-editing, reviewed their essays more in light of their editors' comments than did the writers of the second group, who had not received training in peer-editing.

2.7.2 Studies Examining Peer-Editing and Writing Quality

Other studies have examined the effects of trained peer response on the quality of the revised essays (Berg, 1999; McGroarty & Zhu, 1997; Min, 2006; Paulus, 1999; Schmid,

1999). Berg (1999) and McGroarty and Zhu (1997) have been mentioned above. In addition to comparing trained to untrained peer feedback, Berg (1999) also compares experimental and control groups to determine the effect of trained peer-editing on the quality of L2 essay revisions. Her study concludes that the quality of revisions made by the trained group is better than that by the untrained group. However, Berg did not reveal whether oral peer feedback or teacher instruction in editing was responsible for the improved revisions. By contrast, McGroarty and Zhu's (1997) previously-mentioned L1 study yielded different findings. Using an experimental and a control group, the study examines the short-term and long-term effects of trained versus untrained peer-editing on two sets of student essays. Analysis of the short-term effects involved examining two sets of essays revised in response to peer feedback, while the long-term analysis examined the students' portfolios, each of which includes four essays (a mid-term and final exam essays and two out-of class papers). The study concludes that 'training for peer revision did not greatly improve student writing, although a trend indicated that the experimental group had better cumulative writing development as assessed in portfolio grades' (p. 33).   Although this finding rejects the researchers' hypothesis regarding the positive effect of trained peer revision on essay quality, the results could be explained by the fact that McGroarty & Zhu studied peer-editing in an L1 context and have asked the students to focus on writer's audience, purpose, development of ideas, and organization, not language errors. Accordingly, the students may not have felt that their peers were more competent than them in these areas and hence did not make use of their feedback in revising their writings. However, in an L2 context, students may not feel confident about their writing ability and thus, may be more willing to consider their peers' suggestions.

On the other hand, in a study that examined the effect of trained peer feedback as well as of teacher feedback on students' essay revisions, Paulus (1999) found that students made changes in their content and language as a result of both peer and teacher feedback and that these changes significantly improved students' final draft. However, Paulus's (1999) study did not study the effects of each type of feedback separately nor did it trace the effects of self-editing on revised drafts. Thus, it is not clear whether peer, teacher, or self feedback is responsible for the improved revisions. Similarly, in an M.A. thesis examining the effects of trained peer-editing on students' essay revisions, Schmid (1999) found that essay revision in response to trained peer feedback had a positive impact on essay quality. However, Schmid's study did not include a control group, so results may also be attributed to editing practice and teacher instruction, not just peer feedback. Min's (2006) above-mentioned L2 study which

compares the effects of trained and untrained peer feedback on students' essay revisions also traces the number and source of essay revisions. The study concluded that trained peer-editing resulted in better essay quality since the 72% of the revisions made in response to trained peer feedback were superior in quality compared to the 13% of revisions made in response to untrained peer feedback. Hence, having traced the source of feedback and the revisions resulting from it, Min (2006) argues that trained peer feedback improves revised drafts.

Given the difference in research design and questions (L1/ L2 studies) and the vagueness of some of the above findings (Berg, 1999; Paulus, 1999, Schmid, 1999), it is not entirely clear whether or not trained peer feedback leads students to write better-quality drafts. One may interpret the improvement in essays revised in response to trained peer feedback to be the result of training in editing and revision rather than that of peer feedback itself.

However, Berg (1999) does not believe that the improvement in revised essays could be the result of training in editing and revision. Rather, she considers peer feedback 'an important learning tool in a writing course' (p.232) that helps students determine 'incongruities between a writer's intention and execution' (Sommers, 1980, p. 385 in Berg, 1999). Without the help of peers, students may not see these 'incongruities' (Berg, 1999). Peer feedback also helps them 'discover viable text alternatives to unclear aspects of their writing' (Berg, 1999, p. 232). Similarly, Min (2006) states that 'Revision instruction cannot effectively deal with … problems among inexperienced writers because it requires them to view their texts from an outsider's perspective and think of revision strategies alone' (p. 135). Nevertheless, the few studies that have traced the source of revision in students' second drafts (whether peer-based, teacher-based, or self-based) revealed another factor that may contribute to essay revision, namely self-editing (see below).

2.7.3 Peer-Editing Versus Self-Editing

Studies tracing the source of essay revisions have shown that students tend to make considerable revisions as a result of self-editing. Connor and Asenavage (1994) examined the fourth essay of two ESL student groups who were trained in peer-editing. The essay was written in three drafts: the second draft was written in response to peer feedback, while the third was in response to teacher feedback. Revisions on the second draft resulting from peer feedback were 4% in Group 1 and 12% in Group 2. Moreover, revisions on the third draft

resulting from teacher feedback were 37% in Group 1 and 35% in Group 2, those resulting from self/others were 57% in Group 1 and 64% in Group 2, while revisions resulting from direct group comments were 6% in Group 1 and 1% in Group 2. Hence, essay revisions resulting from self/other feedback were considerably more than those resulting from teacher or peer feedback for the two groups. However, the study included a small number of students (four students per group), so the results may not be generalisable. Also, it did not indicate whether the revised drafts improved in quality. The researchers suggested that 'future studies might investigate if peer reviews develop the students' ability to revise their own writing without receiving input from their peers or teachers (p.767).

In contrast, another study tracing the source of essay revisions arrived at different results (Mendonça & Johnson, 1994). The study examined the first essay written by 12 ESL students who were paired off to edit each other's first draft with the help of four guided questions; however, the students did not receive training in peer-editing. Analysis of the first and second drafts and the peer feedback indicated that 53% of essay revisions were peer generated, while 37% resulted from self revisions. The relatively small number of revisions resulting from self-editing (compared to that number in Connor and Assenavage's 1994 study) may be attributed to the fact that the students had not received training in peer-editing and thus were not confident of their ability to edit their essays.

Moreover, the previously-mentioned study by Paulus (1999) also traced the source of essay revisions. The study examined 11 students who wrote an essay in three drafts: the second draft in response to peer feedback, while the third was in response to teacher feedback. Results indicated that while peer feedback was the source of 32.3% of revisions in the second draft, 65.4% of the revisions were generated by self/other feedback. Moreover, in the third draft, 56.7% of revisions resulted from teacher feedback, while 42.3% resulted from self/other feedback. Hence, similar to the study of Connor and Asenavage (1994), a significant number of revisions resulted from self-editing although the students had been trained in peer-editing. However, as explained earlier, Paulus did not study the effect of each type of feedback separately (peer, teacher, self) nor did it analyse the effects of the self-editing on the quality of the revised drafts.

The above studies indicate that self-editing plays a considerable role in essay revision. Indeed, Ferris (2003) reviewed the work of many researchers on peer-editing and stated that 'the mere act of rereading and rewriting, even without feedback from peers or teacher, may lead not only to substantive changes but improved writing quality' (p. 82). Likewise, Hyland and Hyland (2006a) claim that students can revise their own writing and improve it significantly and agree with Connor and Asenavage (1994) that 'research into peer feedback and self-evaluation is likely to yield useful results in how response might lead to greater independence' (p. 96). Unfortunately, only a few research studies compare the effects of trained peer-editing with those of self-editing on improving revised essays (Berger, 1990; Graner, 1987) and on creating long-term awareness of good writing skills (Rothschild and Klingenberg, 1990). Below is a critical analysis of these studies.

To compare the effects of trained peer-editing to those of self-editing on revised essays, Berger (1990) examined essay revisions of two groups, each including 23 students. Both groups practiced the feedback technique they were asked to engage in. After one session of training, the first group peer-edited each other's essays, while the second group self-edited their essays. A comparison of the essay revisions made by the two groups revealed that 'The peer feedback groups did make more revisions than the self-feedback groups in every category except content' (p. 28), but it did not investigate the effect of type of feedback on essay quality. A similar study by Graner (1987) found that both groups (those who received peer-editing and those who engaged in self-editing) improved in writing, but there was no significant difference in writing ability between the peer-editing group and the self-editing one. This may be due to the fact that the two groups only had one training session in editing, which did not allow the students who engaged in peer-editing to develop a sense of audience awareness that may help them revise their essays from different perspectives.

On the other hand, a study by Rothschild and Klingenberg (1990) reported on an experiment that studied the effect of applying an evaluation scale to peer- and self- evaluation of essays. The study involved an experimental and a control group. In part one of the study, the students in the experimental group were trained throughout a term to evaluate their own as well as their peer's writing using a scale designed to suit the course objectives. Evaluation results of the training session revealed that 'the majority of students agreed with an acceptable range with each other and with the teacher' (p. 58). In a follow-up study with a higher-level

class, the same training resulted in 'a greater degree of conformity' in evaluation (p. 58). In part two of the study, the experimental group from the two classes, the untrained control group, and the teachers evaluated 14 compositions to test the hypothesis that trained students have a concept of good writing that is closer to that of their teachers than the control group. This time, neither group was provided with evaluation criteria. The two groups also wrote comments on the quality of the compositions they had evaluated. Results did not confirm the hypothesis as the correlation between student evaluation and teacher evaluation was mostly low. Still, a comparison of the comments written by both groups on the writing quality revealed that the experimental group had internalized some criteria of the evaluation scale since their comments were on similar lines as the teachers' comments. This finding may suggest that longer periods of training could allow students to fully internalize the evaluation scale and thus create long-term awareness of good writing skills. However, Rothschild and Klingenberg's study did not indicate whether or not students trained in the use of the scale were better able to evaluate their own compositions and improve them, but a study by Mittan (1989) focused on this issue. Mittan considered that giving feedback had positive effects on the reader's self-editing skills since 'by responding critically to their colleagues' writing, students exercise the critical thinking they must apply to their own work' (p. 210).

To sum up, the rather high percentage of self-based revisions mentioned in the above studies (Connor and Asenavage 1994; Mendonça & Johnson, 1994; Paulus, 1999) suggests that self-editing, promoted by trained peer-editing, deserves further investigation and hence this issue will be investigated in the third cycle of this overall study (see Chapter Four).

2.7.4 Peer-Editing and Language Proficiency

In addition to the scarcity of studies comparing the effects of peer-editing to those of self-editing on the quality of the revised drafts, another gap in the literature is presented by the scarcity of studies examining the long-term effects of trained peer-editing on improving students' language proficiency. It is easy to understand why some teachers and researchers may be skeptical about students' ability to peer-edit and possibly reduce their colleagues' language errors (Allaei & Connor, 1990; Connor & Asenavage, 1994; Leki, 1990) when the

benefit of teacher correction of such errors is still being questioned (Kepner, 1991; Leki, 1991; Truscott (1996; 1999, 2007). In a study carried out to determine whether teacher comments on content or grammar result in better student writing, Kepner (1991) concludes that students receiving message-related feedback write better than those who receive surface-error feedback. However, Kepner's (1991) students had simply received comments on their journals, and were not asked to revise and correct their entries in response to teacher feedback. Since no correction was required, one may not claim that error correction does not help students reduce language errors in subsequent writing.

Similarly, Leki (1991) disagrees with the value of form-focused error correction in improving students' writing. She argues that

> even under controlled conditions, in which a variety of correction techniques has been used consistently and systematically, evidence suggests no difference in degree of student improvement regardless of what types of responses to written errors (including ignoring errors) are employed (p. 204).

Furthermore, a series of review articles by Truscott (1996; 1999; 2004; 2007) call for abandoning error correction as a means of improving students' language ability. In fact, Truscott (1996) claims that teacher correction of language errors is tedious, futile, and ignores the instructional sequence of grammatical learning that students must pass through before acquiring a second language. Moreover, to back his claims, Truscott (1996) cites the results of several error correction studies. However, some of these studies are not really comparable since they differ in their research design as well as in the in the origins and L1 of the students involved in them. Moreover, Ferris (1999) argues that Truscott (1996) overemphasizes studies reporting negative results of error correction and ignores those contradicting his argument.

In contrast, other studies acknowledge the efficacy of teacher feedback on student language errors (Fathman & Whalley 1990; Ferris, 1997; and Ferris, 1999). In Fathman and Whalley (1990), all students who received only grammar feedback improved their grammatical accuracy. Moreover, Ferris (1997) concludes that among other teacher feedback,

'summary comments on grammar appear to lead to the most substantive revisions' (p. 328). Likewise, Ferris (1999) asserts that error correction that is systematic, selective, and clear can help students to improve their writing ability. However, these studies do not investigate the error correction methods that may lead students to short-term and/or long-term improvement of their language and do not examine which errors are easier to avoid than others (see Truscott, 1999).

Studies that have examined the effects of different kinds of error feedback on reducing specific language errors are those by Bitchener, Young and Cameron (2005), Chandler (2003), Ferris (2006), and Ferris and Roberts (2001). To start with, a study by Ferris and Roberts (2001) examined three student groups, each receiving a different feedback method. Errors made by the first group were coded, those made by the second group were only underlined, while those by the third group were given no feedback whatsoever. The errors examined are verbs, noun endings, articles, wrong word and sentence structure. Results show that the two groups that received feedback significantly outperformed the group that had no feedback. Moreover, 'error feedback had noticeably higher success ratios in the three "treatable" categories (verbs, noun endings, and articles) than in the "untreatable" word choice and sentence structure categories' (p. 172), but not much difference in editing success between the first (coded errors) and second (underlined errors) groups was reported.   The study suggests that the type of error addressed seems to influence language accuracy. It also argues for the success of error feedback in reducing language errors in revised drafts but does not trace improvement in accuracy over time.

Two studies by Chandler (2003) also discuss error correction. The first study, involving an experimental group and a control group, investigated whether error correction between assignments improves subsequent writing. Both the experimental and control groups received error feedback. However, the students in the experimental group were asked, after each of the five writing assignments, to correct *all* language errors underlined by the teacher before writing another essay, while the students in the control group revised their errors only after writing the five assignments. Chandler compared the first and fifth assignments for both groups and concluded that error correction on the students' drafts reduces language errors in subsequent writing when the students are required to correct their errors before writing

another assignment. However, according to Ferris (2004) and Truscott (2004, 2007), one main weakness of this study is that the control group, like the experimental group, had received error feedback. To prove the efficacy of a certain treatment, it should only be administered to the experimental group, but not the control group.

On the other hand, Chandler's second study examines different types of error feedback and their effects on revised drafts and new essays. Each student was given four types of error feedback, in different order, on four autobiographical writing assignments. The feedback types were as follows: (1) correction, (2) underlining with description, (3) only description of type of error, and (4) only underlining. All the students were required to correct their language errors before writing the next assignment. A comparison of the correction results of draft one of the first and last assignments revealed that 'both direct correction and simple underlining of errors are significantly superior to describing the type of error, even with underlining, for reducing long-term error' (p. 267). However, the two studies do not indicate whether certain types of feedback work better for specific kinds of language errors.

By contrast to Chandler's (2003) studies, which do not focus on specific language errors, a study by Bitchener et al (2005) has examined the effect of different types of feedback on reducing three types of errors: preposition, past simple tense, and the definite article in new pieces of writing over a 12-week period. Group 1 received direct written feedback with a 5 minute student-researcher conference and 20 hours of instruction/week; group 2 received direct written feedback alone and 10 hours of instruction/week; while group 3 received no feedback and 4 hours of instruction/week. Results revealed significant gains in accuracy for the first type of feedback, and only when correcting the past simple tense and the definite article, but no improvement when the three types of errors were measured together. The findings of this study corroborate those of Ferris and Roberts (2001) as they suggest that error type plays a role in whether or not students are able to produce correct language structures. Moreover, the study attributes the positive results of error correction accomplished by the first group in new essays to the type of feedback they had received since the amount of grammar instruction was the same for all the groups. However, the fact that the three groups were exposed to L2 for different lengths of time may also have contributed to the results. Group 1 were exposed to L2 the most, and this may have affected the findings of this study.

Finally, in a study investigating the short-term and long-term effects of error correction on reducing language errors, Ferris (2006) examined 15 types of language errors and analysed different types of error feedback. She found that the students have correctly edited their language errors 88% of the time in response to direct teacher feedback and 77% in response to indirect feedback. Hence, type of feedback did not greatly affect the accuracy of correction. However, error category did. In their third drafts, the students were able to reduce their errors by about 80% in all error categories marked by the teacher on the second drafts (short-term effect), with the exception of errors in idiom and subject/verb agreement categories, which constituted together less than five percent of the total number of errors marked. Moreover, the study analyses the long-term effects of error feedback by tracing the number of errors made on the second drafts of essay 1 (written at the beginning of the term) and essay 4 (written at the end of the term) and concludes that the students have shown 'significant progress over the semester' (p.90). This conclusion may be considered an over-generalisation as Ferris reports statistically significant improvement in only five major error categories out of the 15 categories examined in the study. Besides, the time span between essay 1 and essay 4 is not clear to allow one to define what is meant by 'long-term' effects of error correction. A clear definition of this term is needed to determine whether the reported improvement is indeed long-term or not. Several researchers (Van Patten, 2002; Truscott, 2007) have argued that students with time tend to forget what they had previously learnt.

The above studies have examined the effects of teacher feedback on error correction; however, one study by Khuwaileh (2001) has traced the effects of peer feedback on students' error correction. The study employed an experimental and a control group. Only the experimental group was trained in the use of a scale which included aspects of good essay writing, but not the control group. During the training period, the students were asked to evaluate each other's essays using the scale and to justify the grades they gave each other. After collecting the graded essays and the scale used to correct them, teachers looked for mismatches between the scale and the grade given and explained the mismatches to the students. At the end of the training period, a comparison of three essays written by the two groups revealed that the experimental group had significantly improved in writing compared to the control group, particularly in terms of organisation and grammar. Khuwaileh attributes this improvement to peer-interaction and the students' need to save face by getting good writing evaluations from their peers. However, another possible reason for the improvement

may be teacher instruction in the elements of good writing, which took place after every graded essay. Another limitation of this study is in the reliability of the reported results since the researcher was the only one to check the accuracy and reliability of the students' grading.

The above review of language studies shows that the issue is not whether language errors should or should not be corrected but rather how to engage in error correction in order to promote students' ability to self-edit their essays, and which errors to correct. Several studies in the field of composition have examined the types and frequency of language errors in students' essays. A historic example is a study by Hodges in 1938-1939 which investigated the pattern of language errors in 20,000 student papers. Results of the study revealed the top ten errors students made at the time (see Lunsford and Lunsford, 2008, p. 783). Another important study was carried out by Connors and Lunsford (1988) to investigate any shifts in students' language errors since Hodge's study. Connors and Lunsford's study examined the types of language errors in 3000 undergraduate student papers randomly selected from 21,500 student papers and released a list of the most frequent twenty errors (pp.161-163). They concluded that students in the 1980's were writing longer papers than they used to write in the 1930's. Moreover, error patterns had changed over the years, but students in the eighties were not making more language errors than they used to make in the thirties.

A later study by Lunsford and Lunsford (2008) replicated Connors and Lunsford's 1988 study to further monitor any changes in the types of student language errors in the past twenty years. This time the study examined language errors in 877 student papers. Once again, results revealed a dramatic increase in the length of papers and a change in student assignments which in turn led to a change in the types of errors made (p. 784, 792), but not in the number of errors (p. 800). A comparison of the above two studies revealed that errors in wrong words and pronoun agreement were very common in student essays; however, errors in subject/verb agreement disappeared in Lunsford and Lunsford's 2008 study, while errors in sentence structure surfaced. The authors considered the use of the 'grammar checker' feature as one reason for the disappearance of subject/verb agreement errors. On the other hand, the appearance of awkward sentence structures was attributed to the change in the genre of writing assignments since students these days are requested to write argumentative essays that require critical thinking, while in the past, they mainly wrote narratives. The findings of Lunsford and Lunsford's 2008 study regarding the frequency of certain errors give support to

Study Three of my action research (see research questions 6, 7, 8, 9, 10, and 11 in Chapter Four) which also examines argumentative essays written by my students in 2006-2007. Indeed, Study Three explores whether training my students to peer-edit or self-edit three of the common errors that appeared in Lunsford and Lunsford (2008), namely pronoun agreement (Pr. Agr), wrong words (W.W.), and awkward sentence structures (S.S.), in addition to subject/verb agreement errors (S/V Agr), enables them to correctly produce these language structures in their revised drafts as well as in their new essays, which do not receive peer feedback.

2.8 Chapter Summary

This chapter has provided a theoretical framework which will be used in Chapter Five to hopefully illuminate the analysis of the results of this overall study. Moreover, the chapter has conducted an extensive review of the studies carried out on peer-editing and revealed the mixed research results regarding the effects of peer-editing on students' writing quality. It has also pointed out some gaps in the research literature that will be addressed in Chapter Four, namely which type of treatment [peer-editing or self-editing] appears to produce greater *overall* improvement in revised and/or new essays and whether peer-editing or self-editing may help the students reduce certain language errors.

Next, Chapter Three describes the research design, discusses the advantages of carrying out action research, evaluates its trustworthiness and authenticity, and describes the mixed methods of data collection used to answer the research questions of the overall study.

CHAPTER 3. RESEARH DESIGN

3.1 Mixed Methods of Data Collection

Before embarking on my research to investigate several issues pertaining to peer-editing (see 1.5 for Research Aims and 1.6 for Research Questions), I needed to base my research in an educational paradigm. There are several research paradigms in social science, principally the positivist paradigm, the interpretive paradigm, the critical educational paradigm, and feminist research (Cohen, Manion, and Morrison, 2000). These paradigms have distinct epistemological and ontological beliefs as well as employ different research methods. For example, positivist researchers usually use quantitative methods of data collection, while interpretive researchers often use qualitative methods, which leads some researchers consider that these divergent methods of data collection should not be combined in the same study (Smith, 1983; Smith and Heshusius, 1986 in Bryman 2004). Other researchers disagree. They consider that these methods may usefully be fused together (Bryman, 2004; Hammersley, 1996). Bryman (2004) refers to this mixed approach as multi-strategy research. It is used when

> researchers want to gather two kinds of data: qualitative data that will allow them to gain access to the perspectives of the people they are studying; and quantitative data that will allow them to explore specific issues in which they are interested (p. 459).

A thorough study of each of the above paradigms led me to base my research in the interpretative paradigm whose characteristics are suitable for natural enquiry. However, in Study Three, I used a quasi-experiment because its research questions require comparison and quantitative measurement (see *4.3.2* for details). Thus I used both quantitative and qualitative research methods in my overall study due to the numerous advantages a multi-strategy approach holds (Bryman, 2004; Hammersley, 1996). To start with, multi-strategy research allows triangulation, where a quantitative method is used to corroborate the results yielded by a qualitative method or vice-versa. If similar results are gained by both methods, this would increase the reliability and the confidence level of the research findings. Moreover, in a multi-strategy approach, qualitative research may facilitate quantitative research since the wealth of

information the former provides may help the researcher form hypotheses that quantitative research can test. It may also aid the researcher in preparing questions for structured interviews and questionnaires (Bryman, 2004). Similarly, quantitative research may facilitate qualitative research by producing results that may suggest which people to interview or may explain research findings from the point of view of the participants (Bryman, 2004).

Hammersley (1992 in Richards, 2003) outlines the factors to consider when deciding on qualitative and/or quantitative methods:

> We are not faced, then, with a stark choice between words and numbers, or even between precise and imprecise data. Furthermore, our decision about what level of precision is appropriate in relation to any particular claim should depend on the nature of what we are trying to describe, on the likely accuracy of our descriptions, on our purposes, and on the resources available to us; not on ideological commitment to one methodological paradigm or another. (p.163)

Similarly, Richards (2003) considers that 'If occasionally more precise quantification has a contribution to make, it would be foolish to deny ourselves this source on ideological grounds' (p.11).

Given the above advantages of mixed-strategy research, this overall study has employed both qualitative and quantitative methods, depending on the purpose and the research questions of each of its three studies. Study One used graded essays and peer-editing forms (quantitative methods) to examine the effects of trained peer-editing on the students' revised and new essays; it also employed a questionnaire (quantitative method) to solicit the students' opinion of peer-editing as a method of essay revision. Study Two utilised observation (a qualitative method) to monitor the students' behaviour as they engaged in peer-editing, graded peer-editing forms, a questionnaire to determine the students' background, as well as interviews (a qualitative method) to seek the students' opinions of peer-editing. On the other hand, Study Three made use of experimentation in order to test hypotheses (see Stenhouse, 1979 in Hopkins, 1985, p. 22-31). It adopted a pre-test/post-test control group quasi-experiment (typically a quantitative method) to compare the effects of peer-editing and self-editing on the students' revised and new essays in terms of content, organization, and

language (see Chapter Four for details). It also used questionnaires to determine the students' background, document analysis of graded essays and editing forms (a qualitative method) as well as interviews to seek the students' opinions of peer-editing and self-editing (for details on data collection methods, see Chapter Four).

Below is a brief discussion of the characteristics of interpretive research, the characteristics of action research – one of the traditions of interpretive research - and why it fits the purposes of my overall study, a criticism of action research, its trustworthiness and authenticity, a description of the quasi-experiment in Study Three, and a discussion of the quantitative and qualitative methods used in the overall study.

3.2 Interpretive Research

Interpretive research considers social science as different from natural science and holds that the role of social science is to understand human behaviour in terms of individual description and interpretation of it rather than through formation of rules that confine human behaviour (Cohen, Manion, and Morrison, 2000). Interpretive research has several characteristics. To start with, its epistemological assumption is that knowledge is subjective, stemming from unique individual experiences and, therefore, not transferable. This view of knowledge is rooted in Weber's notion of Verstehen, the phenomenological tradition, and in symbolic interactionism. According to Weber (in Bryman, 2004), sociology is concerned with 'the interpretive understanding of social action in order to arrive at a causal explanation of its course and effects' (p.13). Thus, the researcher attempts to establish causality through understanding social action. Phenomenology, which Schutz (in Bryman, 2004) introduced to social science, considers social reality meaningful to humans who behave according to the meanings they attribute to this reality and to the actions of others. In a similar vein, symbolic interactionism founded by Mead (in Bryman, 2004) holds that the social context has a symbolic meaning, which humans constantly try to understand and interpret through their daily interactions.

The second defining characteristic of interpretive research is its ontological assumptions. It considers social reality to exist in the human consciousness, a product of the human mind (Cohen, Manion, and Morrison, 2000). Bryman (2004) refers to this position as

constructionism (see 2.6) for it holds that the social world is constructed by humans through their social interactions and is continuously shaped and reshaped by them. Every individual account of reality is considered acceptable. There is no one definite version of it. Reaffirming the ontological assumption is the third assumption regarding the individual's relation with the environment. This assumption asserts the individual's active role in society as well as his/her free will: voluntarism (Burrell and Morgan 1979 in Cohen, Manion, and Morrison, 2000). The characteristics of interpretive research suit my purpose of examining peer-editing as social interaction since interpretive research investigates the engagement of individuals in real life experiences and uses methods that examine how these individuals construct their own understanding of the activities they participate in. Thus, interpretive research allows me to examine my students in a real classroom as they interact to edit each other's essays; analyze authentic samples of their writing to determine the effect of peer-editing on their writing skills; and investigate their reactions to peer-editing through monitoring their behaviour and seeking their opinions of peer-editing . Hence, the knowledge I gain about these issues would stem from the students' own experiences and opinions of peer-editing, rather than from preconceived ideas about it.

Interpretive researchers differ from positivist researchers in the methodology they use to study the social world. Interpretive researchers follow phenomenological, ethnomethodical, or symbolic interactionism approaches to understand the individual's creation of the social world (Cohen, Manion, and Morrison, 2000). They employ observation, qualitative and quantitative measurement, non-directive interviews, personal accounts, and conversation analysis to achieve their objectives. Some of these methods, such as observation, qualitative and quantitative measurement, and non-directive interviews were used in this overall study as I considered them suitable for generating answers for my research questions. Observation allowed me to examine the students' behaviour as they engaged in peer-editing; qualitative and quantitative measurement enabled me to assess the effects of peer-editing on the students' writing ability; and student interviews revealed their opinions of peer-editing as a technique of essay revision (see 3.6 and 3.7 below).

In carrying out interpretative research, researchers usually follow the inductive approach, which 'seeks to derive general principles, theories, or "truths" from an investigation and documentation of single instances' (Nunan 1992, p.13) Researchers start by posing general research questions, collecting data, interpreting them, recording findings, and

generating a substantive-level theory, which may be subjected to further testing (Richards, 2003). The inductive approach to research allowed me to use different methods to compile data on my students' collaborative interactions, to look for a pattern that might emerge from this information, and to arrive at some inferences which might later on be grounded in SLA and general education theory.

To ensure its quality, interpretive research must fulfill certain criteria. While in positivist research, validity and reliability are the evaluation criteria, including the generalisability of results to other social settings, this is problematic for interpretative studies as they usually involve small groups of people whose perceptions may not be shared by other groups. The same applies to external reliability, i.e. the replicability of a study, which is hard to achieve using interpretative research, as no two situations are identical. Therefore, researchers like LeCompte and Goetz (1982), and Guba and Lincoln (1994 in Richards, 2003) reject the concepts of validity and reliability as unsuitable measures of the quality of interpretative research. Guba and Lincoln (1994) recommend replacing these criteria with those of trustworthiness and authenticity (see *3.4.2*) for details. Finally, interpretative research is concerned with ethical practices at all the stages of the research, starting with its design and ending with the dissemination of information. This is because interpretive research is interested in students as individual learners who have different teaching backgrounds, learning abilities, and personal opinions about what constitutes effective learning methods, so they should be respected as individuals by keeping their identities anonymous and their personal information confidential. Since the present overall study is interpretative, an evaluation of its trustworthiness and authenticity will determine its rigour and quality.

Bryman, however, (2004) is critical of several aspects of interpretive research. It is claimed that the data of interpretive research is too subjective and provides few explanations as to why attention is focused on one area and not another. Moreover, replication of such research is considered hard as it rarely follows standard procedures but frequently pursues the interests of the researchers and their interpretations. Another criticism is the difficulty to generalize the findings of interpretive research because of the small number of participants involved and the fact that it usually does not employ random sampling. Finally, it is claimed that data analysis of interpretive research lacks transparency as it often does not clarify how the conclusions were arrived at. Despite the above criticism, I consider that the characteristics of interpretive research stated above present a tight fit with my research purpose. As stated

earlier, interpretive research allowed me to interact with my students over a long period of time, examine their actual rather than perceived abilities, and seek their detailed opinions and interpretations of the activities in which they were engaged.

3.3 Research Design

Interpretative research includes several traditions, namely biographical studies, phenomenological studies, grounded theory studies, ethnographic studies, case studies, action research and conversation analysis. I opted to use action research because it allowed me to investigate a problem in my classroom in order to bring about change, which would empower the students and me. I wanted to gain an understanding of the issues involved in peer-editing by implementing changes in this activity and evaluating these changes in steps over a period of time. As action research is typically cyclical, this methodology was the best suited for my purposes. Below is a more detailed analysis of the advantages and disadvantages of action research.

3.4 Action Research

Cohen and Manion (1994) state that action research is 'appropriate whenever specific knowledge is required for a specific problem in a specific situation; or when a new approach is to be grafted on an existing system' (p. 194). In this overall study, the new approach was peer-editing and the existing system was the conventional teacher feedback on students' essays. Moreover, action research 'represents a move from a descriptive/ interpretive stance to an interventionist position, where a key aim of the research is to understand better some aspect of professional practice as means of bringing about improvement' (Richards, 2003, p. 24). Since my aim was to introduce peer-editing as a revision method of essay writing, conducting action research on this in class (a natural context) with my students as they engaged in peer-editing would hopefully give me a clear idea of its suitability for my students. It would demonstrate whether peer-editing enabled them to have relevant ideas in their essays, with proper organisation and improved grammatical accuracy. These are basic criteria of good writing skills that would be assessed before and after training in peer-editing to evaluate the efficacy of this method in developing students' essay writing.

Action research can have several advantages to students, teachers and the education practice. On the student level, it can address an issue they are concerned with or a problem they are suffering from. Moreover, it typically looks for ways to facilitate students' learning process by seeking their feedback and their reflections on their learning process and the techniques used to facilitate their learning. Hence, action research is participatory (Kemmis and Wilkinson, 1998). It empowers students to be involved in their own learning as it considers them major contributors to it. In the case of the present study, action research format gave the students the power to decide who to pair off with and how much time they needed to do proper peer-editing. Moreover, the interviews carried out during action research allowed me to evaluate the efficacy of peer-editing as a revision method as well as allowed the students to suggest new approaches that would motivate them and facilitate their learning.

On the teacher level, action research empowers teachers by allowing them to reflect on their practice and find personal solutions for specific problems that their students are facing (Kemmis and Wilkinson, 1998). In this respect, action research stems from teachers' own professional values; the teacher will be able 'to translate her ideas into action in her own classroom… and will integrate the practical and theoretical orientations within herself' (Cohen and Manion, 1994, p.189). Thus, the overall study I carried out in my classes allowed me to identify problems that my students were facing, decide on class activities and interventions, continuously reflect on these activities and interventions, analyse them, and assess their usefulness in bringing about the desired outcome, and then move on from there to modify these activities or plan others (Cohen, Manion, and Morrison, 2000; Kemmis and McTaggart, 1992). Indeed, this overall study helped me, through the use of qualitative and quantitative techniques, to conduct a close examination of my students' engagement in peer-editing, determine their reactions to it, examine how it affected essay revision, assess its merit as a revision technique, and then modify its application in class when the need arose. This cyclical process promotes teachers' professional growth (Winter, 1996 in Cohen, Manion, and Morrison, 2000) for it sharpens their problem-solving skills and furnishes them with the ability to evaluate the results of their own actions.

Moreover, action research can strengthen teachers' relationships with their students. Through action research, I was able to closely interact with my students at every step of the research. I was able to reflect on how each measure I take might affect my students, evaluate

each measure based on my students' reactions to it then decide to continue or discontinue it based on those reactions. Action research can also increase teachers' self-confidence by allowing them to give others a 'reasoned justification' of their educational practice and to provide them with evidence collected from their research and the results of their critical reflections (Kemmis and McTaggart, 1992). Hence, if results of this overall study encourage me to continue using peer-editing in my classes, I would be able to justify my decision with reference to the students' writing performance and their evaluation of peer-editing during interviews.

On the educational level, Kemmis (1999) argues that action research strengthens the ties between teaching experience and educational theory. First, action research allows teachers to 'theorise' about their practices (Kemmis and McTaggart, 1992) since they are involved in the problem that they tackle and hence are best suited to solve it (Morrison, 1998). Second, it has the potential to improve education by 'changing it and learning from these changes' (Kemmis and Mc Taggart (1992, p.22). Teachers who apply new teaching practices in their classrooms and find them successful will eventually make changes in their methods of teaching (Kemmis, 1999). Thus, action research may be responsible for innovative approaches to learning that could enhance teaching practice (Carr and Kemmis, 1986). This is particularly true when the action researcher is also the class teacher.

There are two concepts of action research (Kemmis, 1997). Some researchers (Stenhouse, 1975; Schön, 1983 in Cohen, Manion, and Morrison, 2000) consider action research as an individual activity, while others see it as a collective one (Carr and Kemmis, 1986) where teachers cooperate to study a certain issue and arrive at a decision that would bring about a change in educational practice. However, a collective view of action research may restrict it to situations where there is consensus and conformity among practitioners (Cohen, Manion, and Morrison, 2000; Kemmis, 1997). This does not serve the purpose of this study as other practitioners in the same context may find it difficult to collaborate given their different priorities and different views on writing and teaching. They may also not have time to carry out action research on their students. Hence, this study is an example of action research as individual practice carried out by a practitioner who is concerned about her students' learning and who involves them in it by soliciting their opinions of it. This view of action research still has the potential to forge a link between educational practice and theory provided several individual action research findings arrive at similar results concerning a

specific teaching practice. To sum up, action research has the potential to provide advantages for students, teachers, and the field of education.

3.4.1 Criticism of Action Research

Despite the above advantages of action research, it has some limitations. Action research has been criticized for having little control over its independent variables and using restrictive and unrepresentative samples (Cohen and Manion, 1994, p.193) since the sample is limited to the environment where the action research is carried out. Action research is therefore context-specific, and its findings are non-generalisable. Accordingly, the findings of my study apply only to my students. However, this does not really limit the efficacy of action research as a method of investigation for, as Cohen and Manion (1994) rightly say, 'The emphasis is not so much on obtaining generalisable scientific knowledge as on precise knowledge for a particular situation and purpose' (p.187). Nunan (1992) considers that the importance of establishing the validity of research depends on the purpose of that research. If the researcher is not concerned with establishing causality between variables, then internal validity becomes less problematic, and if the researcher is not interested in generalizing the research findings, then external validity will not be important. Richards (2003) agrees with Nunan and proposes three rules for assessing the quality of interpretive research to which action research belongs: whether it examines a typical sample, provides thick description, and connects to other situations or studies. Thus, if I, in my role as action researcher, carry out a study that meets the above criteria then the findings of my overall study may be considered credible. Moreover, if other researchers repeat this study in similar contexts and gain the same results then my findings may be generalized to students who have similar educational background and language ability as my students and who receive the same kind of training. As stated above (see 3.2), Lincoln and Guba (1985) therefore suggest replacing the positivist criteria of validity and reliability by more naturalistic ones, namely trustworthiness and authenticity (see below).

3.4.2 Trustworthiness and Authenticity of Action Research

Trustworthiness involves credibility and transferability of research [parallel to internal and external validity in positivist research], as well as its dependability [parallel to reliability] and confirmability [objectivity] (Lincoln and Guba, 1985 in Richards, 2003). Action

researchers may promote the credibility of their research by noting down every procedure in their research as well as employing triangulation; for example, using several methods of data collection, to test the accuracy of results. Moreover, a 'thick description' of the social world promotes transferability also since it enables other researchers to determine whether or not the findings of a particular study may be transferred to other contexts and situations. Hence, a detailed and accurate description of my students' engagement in and responses to peer-editing as well as the use of triangulated methods (questionnaires, observation, interviews, and document analysis) would enhance the credibility of my findings in this overall study and may allow transferability.

In addition, action researchers may achieve dependability and confirmability by analyzing the data, reflecting on it, and reporting the findings of the research to those who have participated in it as well as to colleagues so that they may confirm that the researchers have understood the situation under investigation and their results are justifiable. However, in this overall study, it was not possible to report the final results to the participants as the data was processed and analysed after the semester had ended; I was no longer teaching those students and had no access to them. Still, the findings of this study will be used to modify my teaching of other students who will be taking the same English language course with me in the future.

One last criterion to evaluate action research is authenticity. Action research may be considered authentic when researchers honestly report participants' views and offer participants a better understanding of their social context (Bryman, 2004). Participating in the action research by itself is likely to have enhanced student awareness because it allowed the participants to reflect on their experience with peer-editing and its effect on their writing skills and understanding of their small classroom culture.

3.5 Quasi-Experiments

As stated earlier (see 3.2), the overall study is grounded in the interpretive paradigm which understands human behaviour in terms of individual description and interpretation. However, in Study Three I employed experimentation to answer my research questions because the previous two cycles of action research made me ask research questions that

require comparison between a control and an experimental group as well as the use of quantitative measurement (see 3.1).

Experimental designs vary depending on the number of groups studied, the number of pre-tests and post-tests, the sampling procedure, the kind of intervention and the number of interventions carried out. Simple experimental designs may involve a post-test only with a control group or may include a pre-test/post-test given to just one group (de Vaus, 2001). The first type requires a large sample where students are randomly allocated to experimental and control groups. When groups are randomly allocated, the pre-test may be disregarded since 'any differences between control and experimental groups are random and will not account for group differences in outcome' (de Vaus, 2001; p.60). However, this design could not be used in Study Three because the sample was small and could not be randomly chosen as it was constituted of two existing English 3 classes.

Moreover, the one group pre-test/post-test design would also not have been useful in this study. If the experimental group had undergone an intervention and showed some change at the end of the experiment, I would not have been able to tell whether or not this change was the result of the intervention as there was no control group to compare it against. Accordingly, the changes might have been attributed to factors other than the intervention. Other experimental designs were also ruled out because they were not considered suitable to answer the research questions of this study.

One type of experimental design that allows comparison and quantitative measurement is the classical experiment or the pre-test/post-test control group design (Cohen, Manion, and Morrison, 2000). It examines two variables, the dependent and independent variables, and allows the researcher to 'remove the effects of any other variables so the effect of the intervention can be clearly seen' (de Vaus, 2001; p. 53). It involves a pre-test to measure students' abilities before the intervention, an intervention, and a post-test that measures students' abilities after the intervention. Moreover, it includes two groups: the experimental group and the control group which are formed by randomisation. The control group enables the researcher to measure the change, if any, between the two groups as a result of the intervention. This design would have been suitable if it were not for the fact that experiments take place in artificial environments (a laboratory), which are very different from

an educational setting (the classroom) and thus results of such an experiment may not be transferred to real-life settings. Moreover, it requires random selection of students which is not possible given the educational setting.

Rather, in educational settings, a modification of the pre-test/post-test control group experiment called the quasi-experiment is often employed since 'random allocation [of students] is not possible or practical' (Muijs, 2004; p.27) due to problems arising from reassigning students to an experimental or control group and rescheduling their timetables. In a quasi-experiment, students in an intact class serve as the experimental group and are matched according to certain characteristics with a parallel intact class which serves as the 'comparison' group. In quasi-experiments, a control group is referred to as a comparison group (rather than a control group) since it is not formed randomly (Muijs, 2004). Accordingly, a quasi-experimental design involving a pre-test/post-test control group was used in this study as it is the most suitable design to determine whether training in peer-editing can bring about improvement in writing and reduce certain language errors.

3.6 Qualitative Methods

The qualitative methods employed were semi-structured observation, document analysis of essays and editing forms, and semi-structured interviews as indicated below.

3.6.1 Observation

Observation may be classified into structured, unstructured, and semi-structured observation (Cohen, Manion, and Morrison, 2000; Moyles, 2002). Structured observation is quite systematic. It collects data at specific time intervals using an observation schedule (checklist) that lists a set of categories which the researcher plans to observe. Unlike structured observation, unstructured observation involves a thick description of the event and the people observed. It may take note of everything that happens in a certain place or look for nothing in particular (Richards, 2003). It may also focus on the interactions taking place between the observed (Bell, 2002). Observation may also be classified as participant/non-participant depending on the role played by the observer (Cohen, Manion, and Morrison,

2000; Moyles, 2002). Participant observation is one in which the observer takes part in the activity that is being observed, whereas in non-participant observation, the observer keeps a distance from what is being observed (Bell, 2002).

Study Two of this action research included informal, semi-structured participant observation as a method of data collection, where observation did not involve a checklist but focused on the students' attitude towards peer-editing and monitored their interactions while peer-editing. I noted the language used to exchange ideas, the time the students needed to finish peer-editing, and the difficulties they faced during this task. Being the researcher as well as the classroom teacher, I played the role of a participant observer. This role allowed me sufficient contact with my students to catch 'the dynamics of the situations, the people, the personalities, contexts, resources, roles etc' (Cohen, Manion, and Morrison, 2000, p.311) and to capture these in informal notes which I took in class at ten-minute intervals as the students engaged in peer-editing. Observation was carried out over six class periods. Hence, in terms of fitness for purpose, informal semi-structured participant observation allowed me to freely monitor the students' interactions while peer-editing and to describe the events and behaviour of the students without being confined to the categories listed on a given schedule.The method promised a good illumination of what went on between the students as they peer-edited essays (see Chapter Four for details).

One of the limitations of observation is, however, that it is 'subjective, biased, impressionistic, idiosyncratic and lacking in …precise quantifiable measures…' (Cohen, Manion, and Morrison, 2000, p.313). Thus, my observation may lack dependability since I was the only one to observe the students. To counteract this problem, I triangulated the results of my observations by interviewing some of my students to compare their opinions of peer-editing with inferences which I had formed by observing the students when editing. Another problem with observation is that it can make students ill at ease. However, in a student-teacher context, students expect their teacher to observe them as they work, so their initial discomfort usually wears off after a few hours of interaction with the teacher. This is what happened with my student whom I observed in Study Two for six class periods of the semester. Finally, observation that focuses on a specific issue, like student interaction, may overlook other important events in the classroom. I tried to keep this fact in mind in order not to ignore events that may have a bearing on the students' interaction. For example, I paid

attention to whether or not the number of students present in class decreased during practice peer-editing sessions, which may be an indication of the students' reaction to it.

One more consideration for researchers is the need to observe ethical conduct when observing students (Cohen, Manion, and Morrison, 2000; Richards, 2003). I debated seeking the students' informed consent before observing them (overt observation), which might negatively influence their engagement in peer-editing, as opposed to engaging in a covert observation. Since there was little possibility of causing harm to the students if their identity remained anonymous and their behaviour confidential, I decided to use covert observation so that the students' self-consciousness would not affect their true behaviour. To make up for covert observation, I resolved to maintain student anonymity when reporting results in order to protect the dignity of the observed students. However, after classroom observation, I told my students that I was working on a research project and that I needed their permission to report my observation about peer-editing in this classroom. Considering me as a 'fellow student' in need of help, my students readily gave me their consent. No permission was sought from the university to carry out this research as the university does not require it from its faculty.

3.6.2 Document Analysis of Essays and Editing Forms

Document analysis of first drafts, peer-editing forms, and second drafts of randomly chosen essays from Study Three was conducted to determine how writers reacted to peer and self feedback on their essays. Document analysis has several advantages (Placier, 1998). It can contribute to the triangulation of results generated by quantitative methods used in this case to determine essay writing, editing, and language abilities (see *3.7 below*). Moreover, document analysis is an unobtrusive method of collecting data since it does not involve the presence of the students as it is carried out. The texts, which are authentic and primary sources of information, are permanent. Their content is not influenced by the number of times they are analysed (Nunan, 1992). Finally, document analysis in this study could provide first-hand knowledge about what the students actually did when they edited and revised their essays as opposed to what, in the interviews, they thought or claimed they did. Hence, document analysis could help me enhance the credibility of my research by checking the students' actual abilities through their own writing and editing. It also facilitated checking the

accuracy of my interpretations by allowing me to ask a colleague to analyse a sample of the documents.

However, document analysis also has limitations. To start with, documents (essays, editing forms) may be incomplete, which would affect their analysis. To counteract this problem, the students were requested to submit complete work or else they would lose points for incomplete essays and editing forms. Moreover, documents are influenced by the writers' mood and context when writing them, so the document itself may not reflect the true editing or revision ability of the student. Unfortunately, this issue was out of my control. It is hoped that an analysis of several essays and editing forms per student has allowed me to accurately establish whether a student has benefited from peer-editing in revising his/her essays or not. Finally, to observe ethical practices, essays were photocopied, and the students' names were concealed before asking an experienced colleague to analyse them. This was thought to decrease the chance that my colleague might be influenced by my analyses of these documents and reduce bias. Moreover, the students' consent to anonymously publish their editing and essay revision abilities was sought and obtained.

3.6.3 Interviews

Another method of data collection used in this overall study was the interview. Researchers have used different terminologies to classify and label interviews. Wragg (2002) describes structured, unstructured, and semi-structured interviews, while Powney and Watts (1987) discuss respondent interviews (equivalent to structured) and participant interviews (equivalent to unstructured). Structured interviews include mostly close-ended questions given in a specific order, while unstructured interviews in general include open-ended questions that allow interviewees to fully express their opinions about a certain issue. On the other hand, a semi-structured interview allows the interviewer to conduct the interview as well as control it by creating the structure of the interview (the time, place, the schedule of questions to be covered), while at the same time giving the interviewees sufficient freedom to express subjective opinion at length (Wragg, 2002). Study Two and Study Three adopted the semi-structured participant interview because it includes both open-ended and close-ended questions and prompts and probes to help the interviewer gain a clear understanding of the interviewees' stance (Cohen, Manion, and Morrison, 2000). Hence, in terms of fitness for purpose, the semi-structured interview was the most suitable to answer research question 5 of

Study Two 'What are the students' opinions of trained peer-editing as a revision method of essay writing?; research question 12 of Study Three 'What are the students' opinions of trained peer-editing as a revision method of essay writing?; and research question 13 of Study Three 'What are the students' opinions of trained self-editing as a revision method of essay writing?'.

As with other methods of data collection, interviews have some shortcomings. Interviewees may not express what they really feel (Wragg, 2002), perhaps to avoid embarrassment, or they may provide answers which they think would please the interviewer (Cohen, Manion, and Morrison, 2000). Interviewees may also reply in terms of their perceived behaviour, not their actual one. Cohen, Manion, and Morrison (2000) state that

> interviewing procedures are based on the assumption that the person interviewed has insight into the cause of her behaviour. It has now come to be realized that insight of this kind is rarely achieved (p.124).

To make up for the above limitations and also to observe ethical conduct, an explanation was given prior to each interview. The students were encouraged to speak their minds freely. They were told that the purpose of the interview was to seek their assessment of peer- and self-editing as methods of essay revision and would determine whether or not I would in the future use peer- or self-editing as a method of essay revision. Explanation of the purpose of the interview may have encouraged the students to speak the truth since their responses would only affect my teaching practice, and not their course grades. Moreover, the students were told that their participation in the interviews was optional and their permission to report their responses was sought after promising them confidentiality. The interviews, carried out only with the students who volunteered from each group (15 students in Study Two, 11 students in the experimental group and 10 students in the comparison group of Study Three), took place in my office for an average of 10 to 15 minutes each. Every effort was made to relax the interviewees by offering them coffee and asking them whether or not they minded being tape-recorded. The responses of two students in Study Three who did not wish to be tape-recorded were written down as notes to make sure the students were comfortable, while the tape-recorded interviews were transcribed verbatim then coded and categorized. However, I did not share my transcriptions of the interviews with my students because they were made after the semester had ended. This fact may limit the credibility of my

interpretation of their responses (see chapter Four). However, a colleague's analysis (see *3.6.2* and *4.3.8)* of some student essays and editing forms in Study Three revealed the same editing benefits and difficulties that my students had mentioned in their interviews. This makes me consider the absence of cross-checking my interview transcriptions with these students as a minor limitation.

3.7 Quantitative Research Methods

The quantitative methods used were questionnaires, a graded editing form, a grading rubric to assess the students' performance on essays and a mathematical formula to compute language errors.

3.7.1 Questionnaires

The three studies in this overall study used questionnaires as a method of data collection; however, the type of questionnaire used in each study depended on the kind of information requested and its level of detail. Questionnaires are of three types: Structured, semi-structured, and unstructured. Study One, which was a pilot study, included a structured questionnaire (Appendix D) which requested specific and limited information about the students' reactions to peer-editing. The structured questionnaire is suitable for such a purpose as it usually includes well-focused close-ended questions. The information provided by the Study One questionnaire was pursued further in Study Two. However, in contrast to Study One, Study Two employed a semi-structured questionnaire (Appendix F) that combined the advantages of both the structured and unstructured questionnaires, while reducing their disadvantages. Unlike the structured questionnaire, it includes open-ended questions that allow respondents to give free responses and to elaborate their answers (Cohen, Manion, and Morrison, 2000). This was necessary in Study Two in order to allow the students to explain their small classroom culture, which was a main purpose of this study However, the questionnaire also included close-ended questions (multiple choice and rating scales). A main advantage of such questions is that they facilitate coding and they simplify data reduction; thus their analysis is less time-consuming (Cohen, Manion, and Morrison, 2000). These questions were used to solicit brief information about student's previous learning. In Study Three, another structured questionnaire (Appendix I) was used to determine the students'

educational background to see if the experimental and comparison groups of that study were similar or not. There was no need for open-ended questions in this case since detailed information about the students' reactions to peer-editing and self-editing were later on obtained from student interviews carried out towards the end of the semester.

However, questionnaires have some limitations. I had to carefully word my questions to avoid ambiguity, misunderstanding, and bias (Bell, 2002). To this end, I piloted the questionnaires by giving them to the students who were not part of this overall study. In addition, there is a danger that questions may be left unanswered, intentionally or unintentionally, which would make the data incomplete. Accordingly, I requested the students to write their names on the questionnaire so they may be contacted to supply vague or missing information if they had not purposely ignored it (Cohen, Manion, and Morrison, 2000). Asking for the students' names may infringe on their privacy and affect the trustworthiness of the information supplied. However, since they were not asked to reveal sensitive information, I felt that the advantage of tracing the students who had skipped some questions or whose responses were not clear outweighed that of keeping the questionnaires anonymous. Another limitation was that I could not verify whether the respondents were telling the truth or not. Accordingly, I tried to limit the likelihood of dishonest information by explaining to the students the purpose of my research and that their names were required just in case I needed to get back to them for clarifications. Nevertheless, some information may still be unreliable because the students may have forgotten the correct answer or because they wished to make a good impression on me, their teacher.

As with the other methods of data collection, I endeavoured to observe ethical conduct when administering the questionnaires. I myself distributed the questionnaire in class to make sure the students were informed that responding to it was optional and that it would be used in my doctoral thesis. Moreover, to make up for asking them to write their names on the questionnaire, the students were promised confidentiality.

3.7.2 Editing Form

The students' editing ability was evaluated by filling in an editing form designed by the teacher in Study One. However, in Study Two and Study Three, a modified version of the peer-editing form, adapted from Killgalon (1994), was used (see Appendix E and Appendix H

for the causal and the problem/solution peer editing forms respectively). The editing form, used by all groups to peer- and self-edit, measured the accuracy and specificity of the students' feedback. The form was rated in Study One and Study Three using a three-point scale adapted from McGraorty and Zhu (1997) where 3 points was the highest possible grade and 1 the lowest. A good editor (3 points) is one who spots and accurately expresses most of the merits and demerits of an essay and suggests specific ways of revising the weak parts. An average editor (2 points) spots some of the essay's strengths and weaknesses then gives rather general comments on how to revise the essay. On the other hand, a poor editor (1 point) cannot differentiate the good parts from the weak ones in an essay, often gives general or wrong suggestions on how to revise an essay and sometimes chooses not to comment at all. However, in Study Two, the peer-editing form was graded over 10 points (see *4.2.6*). To minimise the limitations caused by ambiguous wording in the editing form, the form was piloted and revised several times to address the difficulty some students faced in filling it in. It reached its final state in Study Three. Finally, to decrease bias in evaluating editing forms, I asked an experienced colleague to assess unmarked anonymous photocopies of editing forms. Our results were compared to monitor the credibility of my evaluation (see *4.2.6*).

3.7.3 Essay Writing Ability

In Study One and Study Three, the students' essay writing ability on the first and second drafts of Essay Two (the position argument) and Essay Three (the problem-solution argument), whose topics were related to readings discussed in class, was evaluated using a scoring rubric that adopts Hamp-Lyons' (1991) multiple trait approach (see Chapter Four). According to Hamp-Lyons, multiple trait scoring 'implies scoring any single essay on more than one facet or trait exhibited by the text' (p. 247). This method of evaluation focuses on the criteria considered most appropriate ('salient') in the evaluation of a particular writing assignment. I used the criteria of a well-written argumentative essay that is set in the students' course book by Seyler (2005) and designed a rubric that reflected these criteria (see Appendix A). The rubric was used by other teachers during essay evaluation sessions held by the Humanities Department at the University prior to this study, and its suitability as a measuring tool was accepted. Moreover, since credibility of grading is essential to arrive at unbiased conclusions and inferences in this overall study, I asked my colleague to grade several unmarked student essays which I had photocopied and we compared our results to check the

credibility of my essay evaluation (*see 4.3.8*). Essays given to my colleague were anonymous to protect the students and avoid bias.

3.7.4 Language Ability

To evaluate the students' language ability, four language errors that were common in my students' essays were selected (see also *2.7.4*, p. 42- 43 for research on common language errors). The frequency of language errors under study was calculated using the following formula adapted from Chandler (2003): The total number of errors under study per essay / the total number of words in that essay $\times$ 100. This formula was used to calculate the percentage of rule-based and non rule-based language errors per essay. Moreover, I was the only person involved in classifying and counting the language errors as well as counting the number of words per essay. To reduce the possibility of discrepancies in the identification and calculation of errors, I counted then double-checked the number of language errors and the number of words per essay (see Appendix L for coded essay samples).

The next chapter will discuss the present overall study comprised of three studies carried out over a period of four semesters, using different methods of data collection in order to answer the above-mentioned research questions (see 1.6).

CHAPTER 4. THE THREE STUDIES AND THEIR FINDINGS

4.1 Study One (Pilot Study)

4.1.1 Background of the Study

To examine the viability of peer-editing as an essay revision technique and to determine whether or not it promotes the students' self-editing skills and writing proficiency, I investigated the students' engagement in peer-editing and their use of cognitive, metacognitive, and social/affective strategies when providing peer feedback. I hypothesised that training students in peer-editing would improve their revised essays and allow them to write at the end of the semester new better quality essays that had not received peer feedback. To test my hypotheses, Study One (pilot study) examined the following research questions: Q1) Does the quality of trained peer feedback influence the quality of the revised draft? Q2) Does the engagement in trained peer-editing create student awareness of good writing and hence improve the students' ability to write new essays? Q3) What are the students' opinions of trained peer-editing as a revision method of essay writing?

4.1.2 Research Sample

This study involved an English 3 class composed of 24 students, who declared having had no previous experience with peer-editing. Four of the students ended up dropping the course, so the group whose work was actually examined was composed of 20 students, seven males and 13 females, who were between the ages of 18-23. Of the 20 students, 18 were Lebanese, one was Jordanian, and another was Syrian.

4.1.3 Method

In English 3, the students learnt, over a period of 15 weeks, critical analysis of argumentative texts and wrote argumentative essays. The class met three times a week for 50-minute class periods. The first class period was an introductory one, where the students met their colleagues and me, their teacher. I gave the students the course syllabus, which included a detailed description of course objectives, methodology, university attendance policy, class

readings and writing assignments, and the course grade distribution. The students also received the essay grading rubric (see below).

In the second class period, the students wrote a diagnostic essay, which was graded using the above-mentioned scoring rubric that adopts the multiple trait approach (Hamp-Lyons, 1991; see *3.7.3*). The rubric reflected the constituents of an argumentative essay (see Appendix A). However, the grades of the diagnostic essay were not disclosed to the students. They were only used for pairing them. Ferris (2003) recommends pairing students according to their writing ability, whereby a student with good writing skills is paired off with one who is rather weak in writing so that both students can benefit from peer-editing each other's work. The weak student gets to read a good paper that reflects well-developed ideas, proper organization and decent language, while the good student practices critical reading, which would enhance his/her writing ability and makes him/her more aware of the elements of good writing. Accordingly, the students in Study One were paired up in this way.

During three practice peer-editing sessions, the students learnt how to use a variety of learning strategies. For example, they practiced the cognitive strategy of reading their peers' essays twice, once to get the general idea and the second time to focus on content and organization. Another cognitive strategy used was analysing the ideas, then indicating to their colleagues whether or not the ideas were relevant, the organization was appropriate, the purpose was achieved and logical fallacies were avoided. The students also analysed sentences, asked for clarification of ambiguous ideas, and reviewed their comments on the peer-editing form to ensure their specificity and clarity.

In addition to cognitive strategies, the students practiced the metacognitive strategies of focusing on specific parts of an essay, selecting the ideas that needed to be added, revised or deleted, then evaluating the essay. They also learnt social/cognitive strategies, such as interacting positively with their peers and writing comments using a collaborative approach. This approach aimed to encourage the students not to own each other's essays but to be kind and polite in their remarks and clear in indicating the positive and negative points of an essay while keeping in mind the author's message and voice (Lockhart and Ng, 1995; Manglesdorf and Schlumberger, 1992; Stanely, 1992).

In each of the three class periods assigned for practice peer-editing, the instructor modelled for the students how to edit an essay by revising with the students an anonymous diagnostic essay written by a student from a previous semester. Previous essays were used to spare the students any embarrassment that may result from having their own essays scrutinized by the whole class. While revising these essays, the students practiced filling in a peer-editing form, which I had designed to focus the students' attention on the components of the argumentative essay that they needed to examine (Appendix B). The editing form included two sections: a checklist section and an open-ended one. In the checklist section, the students were instructed to put a tick next to the essay components that had been covered well in the draft, half a tick next to those that needed further work, and an 'x' next to those that were either wrong or missing. The open-ended section, solicited editors' opinions on the parts they liked in the essay and the parts they did not like. The positive comments were meant to give student writers confidence that there were positive areas in their essays, while the negative feedback was intended to point out the specific areas in the essay that needed improvement.

During the semester, the students wrote three argumentative essays: causal argument, position argument, and problem/ solution argument. Each of these essays was written in three drafts on themes discussed in class. For each graded essay the students were given two topics to choose from. In week six, the students wrote the first draft of the causal argument in one class period (50 minutes). In the next class period, they exchanged essays with their assigned peers and for 15 minutes reviewed each other's essays with the help of the peer-editing form mentioned above. The students used the same peer-editing form for the first two arguments; however, they used a modified version of the peer-editing form for the problem/solution argument (Appendix C) as it included extra components not required in the causal argument. After writing their feedback on the peer-editing form, they wrote the second draft of their essays in the remaining 35 minutes, and submitted it to the teacher, along with the first draft and the editor's response form. In week 15, the students filled out a structured questionnaire that solicited their feedback about peer-editing (Appendix D). Finally, at the end of the semester (week 16), they wrote a final exam essay, which was not peer-edited. Table 4 below summarises this process, which was followed for each of the three essays.

Table 4: Process Writing and Feedback Stages

Stage One	The students wrote the first draft in 50 minutes on one of two topics previously discussed in class.
Stage Two	Editors reviewed the first draft and filled in the peer-editing form (15 minutes). Writers wrote the second draft (35 minutes). Writers submitted drafts one and two and the peer-editing forms.
Stage Three	Instructor read the first draft and the peer-editor's comments on it, rated the editor's effort, gave feedback on the second draft, and graded it.
Stage Four	The students wrote a final exam essay, which was not peer-edited.

Throughout the semester, in addition to peer-editing essays, the students analysed the components of argumentative articles through critical discussion of arguments assigned from their textbook.

To answer the first research question (Does the quality of trained peer feedback influence the quality of the revised draft?), I read the first drafts, and the respective peer responses to them in order to check how helpful the editors' remarks were in getting the writers to review their essays. For motivation purposes, peer feedback written on the editing forms was rated using a three-point scale adapted from McGraorty and Zhu (1997) (see 3.7.2). After rating the editors' feedback, I read and graded the second draft using the previously-mentioned essay scoring rubric (see Appendix A). The whole process was repeated for the second and third essays in order to achieve data triangulation, but only the results of Essay One (causal argument) and Essay Three (problem/solution argument) are reported below. The final exam essay, which was self-edited, was also scored using the same essay grading rubric.

Students' peer-editing performance on Essays One and Three revealed that students differed in their ability to edit. Some students had acquired good editing skills, others had average ability, while others were poor in editing. The hypothesis that good editors help students revise their drafts well was tested by comparing the level of their respective editors on each essay with the students' grades on the second draft of the causal argument and the problem/solution argument. On the causal argument, the correlation between students' peer-editing ratings and their received scores on that essay was determined using the Pearson Product Moment correlation. Analysis of the result revealed that the relationship between peer editing quality and essay writing quality was not statistically significant at $p = 0.05$ alpha level, $r = 0.04$, $p = 0.84$. Similarly, the relationship between the peer-editing ratings on the problem/solution argument and the received scores on that essay revealed that the relationship between peer editing quality and essay writing quality was not statistically significant at $p =$

0.05 alpha level, r = 0.12, p = 0.61. Thus, my first hypothesis was proven wrong since good feedback did not result in well-revised essays, nor did poor feedback result in weak ones.

In order to answer the second research question (Does the engagement in trained peer-editing create student awareness of good writing and hence improve the students' ability to write new essays?), I compared the students' scores on their causal argument written in week six to their scores on the final exam essay written in week 16. The students' causal argument was chosen, not their diagnostic essay because unlike the diagnostic essay, the causal argument was written after the argumentative essay had been explained in class, so the students already knew its components. Hence, knowledge of the components of an argumentative essay was not a variable in this pilot study (Study One). A paired sample t-test was carried out comparing the difference in writing performance between the students' second draft of the first essay (causal argument), which was peer-edited, and their final exam essay (post-test), which was not peer-edited.

Table 5: Students' Scores on the Second Draft of the Causal and Final Exam Essays

Students	Causal Essay	Final Exam Essay
1	58	63
2	70	65
3	75	85
4	86	90
5	77	80
6	73	80
7	50	70
8	65	85
9	80	78
10	50	55
11	70	73
12	80	88
13	78	85
14	65	80
15	50	75
16	85	88
17	80	85
18	75	78
19	65	70
20	72	70

Results revealed a statistically significant difference in the students' performance on these two essays in favour of the post-test at p = 0.00 (t = -3.985); the mean score of the causal argument (pre-test) and the final exam essay (post-test) were 70.45 and 77.15 and the standard deviation (SD)11.11 and 9.42 respectively; d = 0.66. Accordingly, Study One revealed that trained peer-editing seemed to have a favourable effect on increasing students'

awareness of good writing skills since students at the end of the semester were able to write a new better quality final exam essay although they had not received peer feedback on it (see 5.1 for a detailed analysis of Study One results).

In order to answer the third research question (What are the students' opinions of trained peer-editing as a revision method of essay writing?), a structured questionnaire was distributed in class at the end of the semester to 13 students who volunteered to respond to it. The questionnaire asked the students about their experience with and opinion of peer-editing. The results of the questionnaire were as follows (see Table 6 below).

Table 6. Questionnaire Responses

Question Number	Yes	No	No Response
1. Have you ever engaged in peer-editing as part of a course requirement before?	3	10	
2. Has the process of peer-editing been well explained in this class?	13	0	
3. Are you aware of the rationale behind peer-editing?	9	4	
4. Has peer-editing helped you in fixing your essay **content**?	7	6	
5. Has peer-editing helped you in fixing the **organization** of ideas in your essay?	7	6	
6. Has peer-editing helped you in correcting the **language** mistakes in your essay?	6	7	
7. Have you reviewed your essays in response to your peer-editor's comments?	10	2	1
8. Which peer comments do you consider most helpful in assisting you to review your essays? Content, organization, language? (See Table 7 below)			
9. Do you consider peer-editing a successful revision methodology?	11	1	1
10. Are you able to self-edit your own essays now?	12	1	
11. Were you able to self-edit your own essays before you were taught to practice peer-editing?	2	11	
12. Do you think having the same peer-editor throughout the semester is a good idea?	4	9	
13. Are the peer response forms helpful in guiding students in peer-editing?	13		
14. Do you think that peer-editing is properly achieved when peer groups consist of two students?	11	1	1
15. Should group members be more than two?	11	2	
16. Would you like to engage in peer-editing in your other English writing courses?	8	5	
	Gender	Lang.	Both
17. Would you like to be grouped according to gender, language ability, or both?	1	7	4

Of the 13 who completed the questionnaire, only three students stated that they had previous experience with peer-editing (q.1). While all indicated that the process of peer-

editing was well explained in class (q.2), only nine students considered themselves aware of the rationale behind peer-editing (q.3). Moreover, in response to whether peer-editing helped students improve their essay content, organisation, and language, seven out of 13 students thought peer-editing helped them in essay content as well as organisation of ideas, while six felt it was helpful in correcting language mistakes (q. 4,5,6). On the other hand, ten students indicated that they had revised their essays in response to their peers' comments, two students said they did not, and one student did not respond to this question (q. 7). When asked to rate peer-editing on a scale from one to three to indicate what was most helpful in improving content, organisation, or language using (1) to refer to the most helpful comment and (3) the least helpful (q. 8), only four students rated content as most helpful, and 6 students rated it as second most helpful. Three students did not rate content. However, seven students rated organisation as most helpful, and four students rated it as second most helpful. Two students did not rate organisation. Only one student considered peer-editing as most helpful in improving language, while ten students considered it least helpful. Two students did not rate language. Hence, the students found peer-editing to help them most in organising their ideas in an essay (see Table 7 below).

Table 7. Response to Question 8 in Table 6

Q8. Peer-editing	Most Helpful (1)	Helpful (2)	Least Helpful (3)
Content	4	6	0
Organization	7	4	0
Language	1	0	10

Overall, when asked about the effectiveness of peer-editing as a revision method (q. 9), out of the 13 students who completed the questionnaire, 11 students thought peer-editing was a successful revision method, but one student did not respond to this question. Compared to 11 out of 13 students who admitted their inability to self-edit their essays before practicing peer-editing, after practicing peer-editing, 12 students indicated that they now could self-edit their essays (q. 10, 11). Thus, of the 13 students who completed the questionnaire, ten students perceived they had gained peer-editing skills. Furthermore, although only four students considered it a good idea to have the same peer-editor throughout the semester, all surveyed students thought peer response forms were helpful in guiding the students in peer-editing (q. 12, 13). Also, 11 students considered that peer-editing is properly achieved when editing essays in pairs, while one student disapproved and another did not respond (q. 14)]. Similarly, 11 students said groups should not include more than two peers, but one student suggested a group of three and another student suggested a group of four (q. 15). When asked

whether they would like to do peer-editing in other English courses, eight students answered 'Yes', while five answered 'No'. Finally, seven students preferred to be grouped according to language ability, while one student chose to be grouped by gender, and four students preferred to be grouped both by gender and language ability (q. 17). However, one student did not respond to this question.

To sum up, the results of this pilot study revealed that the students did not benefit much directly from their peer-editors' feedback. However, they seemed to benefit from the process of peer-editing as it empowered them to become better self-editors at the end of the semester. Moreover, the students' attitude towards peer-editing had improved.

4.1.4 Limitations of Study One

The study, however, has some limitations. I was the researcher as well as the class instructor, which may have influenced the objectivity of the research results since the students may have been conscious of their behaviour in class when peer-editing in order to please me.

Moreover, the editing form did not help the students much in giving proper feedback to their colleagues. To start with, some essay components were not included in the checklist part of the form. In other cases, the concept they should focus on was not clearly worded, which made the students respond randomly to it. For example, to check whether there were irrelevant ideas in the essay or not, the editing form had the following item: No irrelevant ideas _____. Some students put "x" meaning no, there were no irrelevant ideas, while others put a tick to mean yes, there were no irrelevant ideas. Responses to this section were mostly general or vague. Comments on the open-ended section were rather general, which made writers rarely benefit from it. When getting their essays back along with the peer-editing form, writers sometimes found out what components were missing in their essay, or which ones needed improvement but did not know how to go about improving their essays. For example, the editors would put a check mark next to the item on logical fallacies meaning that the essay included logical fallacies, but the writer did not know which sentence included the fallacy or how to correct it since no suggestions were offered. These problems with the editing form may have contributed to the result of this study; i.e. that peer feedback was not really successful in improving the students' essay writing. Thus, piloting the editing form

pointed out its weaknesses, allowed me to edit it before using the form in Study Two, in order to increase my confidence in its clarity for the students.

The students may also not have provided honest answers on the questionnaire since it included their names, or because they may have forgotten some information about their past learning (see Chapter Three). Moreover, at the beginning of the semester, I had given the students, a 'pep talk' on the advantages of peer-editing, so they were aware of my enthusiasm for this approach. Thus, it would not be surprising if in their questionnaire responses they were reluctant to give me negative feedback on peer-editing. That is one reason for assuming that non-committal responses on the questionnaire might in fact be negative (see responses to questions 7, 9, 14, 17 in Table 6 and question 8 in Table 7).

A further limitation is that I was the only one to grade the essays and the peer-editing forms in this pilot study, which limits the reliability of the findings. Finally, since there was also no control group that received teacher instruction in peer-editing (like the group under study) but no peer feedback, the findings of question 2 in this study might also be attributed to teacher instruction, and not to peer-editing.

Despite these limitations, this study was useful in pointing out a rather neglected advantage of peer-editing, which is empowering the students to subsequently self-edit their own essays.

4.2 Study Two

4.2.1 Background of the Study

Study Two was brought about by the results of Study One, which revealed that the students did not benefit much from their colleagues' feedback in improving their second drafts. Intrigued by this finding, and knowing the mixed opinions researchers have about the effectiveness of peer-editing as an essay revision method, I embarked on Study Two looking for possible explanations. Holliday (1994) considers that a teacher may arrive at the appropriate teaching methodology after carefully studying students' small culture. A small culture refers to 'the composite of cohesive behaviour within any social grouping, and not to

the differentiating features of prescribed ethnic, national and international entities' (Holliday, 1999, p.247). Thus, in a company, for example, one may study the small culture of employees involved in evaluating projects; in a neighborhood, a small culture could be formed by residents of a certain building who meet to discuss mutual building concerns, while in an academic institution, a small culture could be that of the classroom, where students from different backgrounds and abilities carry out a certain task. In this case, the small culture of the classroom 'includes commonalities of educational, classroom, collegial and peer experience from all these contexts' (Holliday, 1999, p.249). Considering a small culture approach to study a given situation facilitates understanding its dynamics as it focuses on factors leading to group cohesion and how they work together to address a certain task. Thus, to understand the possible reasons for my students' lack of success with peer-editing in Study One, I examined in Study Two the following research questions: Q.4) How does the students' small classroom culture influence their engagement in giving and receiving peer feedback? Q.5) What are the students' opinions of trained peer-editing as a revision method of essay writing? To answer these questions, the study included several data collection methods discussed below.

4.2.2 Research Sample

Study Two examined another class of English 3 taught at the same university where Study One took place. The class (Group 2) included 24 students: 15 males and 9 females (see *4.2.5 Questionnaire*).

4.2.3 Method

The class met for a 50-minute class period three times a week. In the first class period, the students were given the course syllabus, which included a detailed description of course objectives, methodology, university attendance policy, class readings and writing assignments, and the course grade distribution. In addition, the students received the essay grading rubric, which was the same as the one used in Study One.

Procedures for process essay writing and grading were explained. The students were told they would be writing three graded argumentative essays: causal argument, position argument, and a problem/ solution argument. Each of these essays would be written in three

drafts on themes related to class readings and for each graded essay, the students would be given two topics to choose from. The students would write the first draft of each essay in one class period (50 minutes). First drafts would not be graded. In the next class period, the students would exchange essays with their assigned peers and spend 15 minutes (initially thought sufficient) reviewing each other's essays using the peer-editing form mentioned above. After peer-editing for 15 minutes, the students would take back their own papers and write the second draft of their essays in response to their peers' comments, then they would submit it along with the first draft and the peer- editing form. The students were also told that I would read the first drafts and the respective peer-editing forms in order to check (but not grade) how helpful the editors' remarks were in getting the writers to review their essays. Then I would read and grade the second draft and ask the students to write at home a third draft in response to my comments on their second draft (see Table 8). Results of third drafts are not included in this study. At the end of the term, students would write a final exam essay, which is not peer-edited. Table 8 summarises this process.

Table 8: Process Writing and Feedback Stages

Stage One	Students wrote the first draft in 50 minutes on one of two topics previously discussed in class.
Stage Two	Editors reviewed the first draft and filled in the peer-editing form (15 minutes). Writers wrote the second draft (35 minutes). Writers submitted drafts one and two and the peer-editing forms.
Stage Three	Instructor read first draft and the peer-editor's comments on it, checked the editor's effort, gave feedback on the second draft, and graded it.
Stage Four	Students wrote a final exam essay, which was not peer-edited.

In the first week of the semester, the peer-editing procedure was explained. The students were told that they would be paired off according to language ability, which would be determined by a diagnostic essay written during the first week of the semester. Thus, a student with good language ability would be paired off with a student with weak ability and the same student pairs would edit each other's essays throughout the semester with the help of the modified teacher-designed peer-editing form (Appendix E). The students were also taught the use of cognitive, metacognitive, and social strategies when editing (see *4.1.3).*

The improved peer-editing form also included a checklist and solicited open-ended comments. However, the new checklist included more detailed components of the argumentative essay than the old one, while the open-ended section included four clear editing instructions, namely Add, Delete, Keep, Change, adapted from Killgalon (1994). To

fill in this section properly, the students were asked to number the lines, not sentences of the drafts they edited. Numbering sentences is not a good practice since the students may write very long sentences, which would make error identification rather difficult for the writer. The students were asked to read each essay twice, once to know its general content and another time to edit it. In the second reading, the editor would write on the editing form what needed to be added, deleted, kept, or changed in the essay, would state the line number, justify his/her opinion, and offer suggestions for improving the essay, where possible.

After explaining the procedure and rationale of peer-editing, I gave the students an anonymous student essay from a previous semester and proceeded to edit it in class with the students, using the peer-editing form mentioned above. Two additional peer-editing exercises were done in class and three more were assigned as homework during the next two weeks of the semester. All practice peer-editing exercises were corrected in class to ensure that the students understood how to peer-edit essays. In addition to peer-editing essays, the students analysed throughout the semester the components of argumentative articles through critical discussion of arguments assigned from their textbook. It was assumed that critical discussion of arguments would sharpen student awareness of the components of the argumentative essay, which also appear on the peer-editing form.

4.2.4 Data Collection

In order to identify my students' small classroom culture, I looked for 'a discernible set of behaviours and understandings connected with group cohesion' (Holiday, 1999, p. 248) and the techniques the students used to solve the problems they faced when peer-editing. Thus, I started with classroom observation. Over six 50-minute class periods, I carefully observed my students as they edited essays written by students from a previous semester. The purpose of the observation was to monitor their behavior as they engaged in peer-editing, determine their reaction to it, and look for any difficulties they may encounter when practicing it. Observation did not involve an observation schedule (checklist), but was informal, used as 'an exploratory way, to gain insights that can be tested by other techniques' (Johnson, 1994, p. 52). I acted as a participant observer as I was also the class teacher. Monitoring student pairs as they peer-edited essays, I looked at the peer-editing form they were trying to fill in and listened to the comments they made while editing. During the three

practice editing sessions that took place in class, I sat down behind my desk every 10 minutes and discretely jotted brief notes about my observation. This was possible since no 'formal' teaching took place during the practice peer-editing sessions although I answered occasional questions regarding filling in the form or provided help with vocabulary. I sometimes developed my class notes immediately after class, adding to them my interpretations of the events that I had observed. Student observation was used as a general guide to determining this group's initial reactions to peer-editing.

Bauman (1996 in Holliday, 1999) states that although small cultures may form quickly, 'cultures, even in their most individualized practices, result also from validations of a past. Culture-making is not an *ex tempore* improvisation, but a project of social continuity placed within, and contending with, moments of social change (p.31)'. Hence, I gave the students at the end of observation, a semi-structured questionnaire (Appendix F), adapted from Liebman (1992) to gain some insight into their previous experiences with L2 writing that might shed light on their classroom behaviour when peer-editing and to see if they shared common expectations and beliefs about good learning. The class observations were used to decide what areas in the students' educational background needed clarification and thus what questions to include in the questionnaire (see below). The students were asked to write their names on the questionnaire in order to allow me to seek information about some vague answers or neglected questions as well as to further discuss the responses of some students through one to one interviews.

Between weeks 6 and 12, the students wrote three graded essays, each in three drafts. All first drafts were peer-edited in class. At the end of the semester, the students wrote, in two drafts, a final exam essay, which was not peer-edited. However, the results of the students' essay writing performance are not within the scope of this study.

Towards the end of the semester (week 14), I carried out 15-minute semi-structured interviews with 15 students who had volunteered (see Appendix G for interview questions). The interviews, which took place in my office over a period of one week, were carried out as previously described in Study One.

4.2.5 Results

- *Observation:*

When student pairs were asked to practice editing in class using the peer-editing form, a few started chatting together in Arabic ignoring the assignment, while the majority worked on filling in the first page of the peer-editing form, which involved ticking the available essay components and putting an 'X' next to the missing ones. While monitoring the students, I noticed that most of them wrote few specific remarks in the 'add or 'change' sections of the peer-editing form and often left the 'keep' section blank. Most students took around 40-50 minutes, instead of the allotted 15 minutes, to peer-edit an essay. Moreover, several students enquired whether the forms were to be graded and looked relieved when told the forms would be checked in class but would not be graded. Some merely requested writers to include the components included in the checklist; for example, 'add supporting details', or 'avoid irrelevant ideas'. Moreover, they often conversed in Arabic when they were seeking or giving clarifications. A few students sometimes checked with me before writing a comment to assure themselves that their comments were valid or to convince their peer writers that they were. However, in general, the students did not take peer-editing seriously. Some said they could not find weaknesses in an essay; others appeared unconcerned how well- written their colleague's paper was. Accordingly, their comments were either general or vague.

The students' disinterest in peer-editing was disappointing and the difficulty they faced in commenting on each other's essays spurred me to pursue the matter further. In order to motivate editors to take this activity seriously, I decided to grade the peer-editing form out of ten (see Appendix E). Moreover, I circulated the above-mentioned semi-structured questionnaire which enquired about the students' educational background and culture of learning (as part of the classroom's small culture) in the hope of finding explanations in their background that would shed light on the difficulties they were facing in peer-editing (see the students' responses below).

- *Questionnaire:*

Twenty-four students filled the questionnaire (see Appendix F) in class and wrote their names on it. The questionnaire revealed their national cultures and native languages. The

students belonged to five nationalities: 20 Lebanese, 1 Qatari, 1 Jordanian, 1 Syrian, and 1 Canadian, and they spoke Arabic and English as their native languages. They had attended different schools and studied conventions of English writing from a minimum of three years to a maximum of 15 years, depending on whether English was their L1, L2, or L3. Three students did not indicate how long they had studied English. Of the 24 students, 12 students had attended Lebanese schools that offer the Lebanese Baccalaureate system and teach English as L2 and French as L3. The Lebanese educational program follows a collectionist professional academic culture. A collectionist culture is one where academic subjects have 'strong boundaries' and teachers follow 'a didactic approach' to learning, with minimum student involvement in class activities (Holliday, 1994; pp.72-73). Moreover, seven students attended schools that offer the Lebanese as well as the French Baccalaureate systems and teach French as L2 and English as L3. The French educational program that these students had pursued is modeled after the state education program in France and was brought to Lebanon during the colonisation period. It also followed a collectionist academic culture. Another two students attended American schools that offer the American high school program, which encourages critical thinking and inter-disciplinary learning; i.e. what Holliday (1994) labels as an integrationist approach to learning. The American school teaches English as L1, Arabic as L2 and optional French as L3. On the other hand, two students followed the educational systems of their own native countries, Qatar and Syria, which also follow a didactic approach to learning, and one student followed a Canadian system of education in Canada. Thus, the collectionist approach to learning that most of these students have followed may have shaped their cultures of learning and hence their questionnaire responses below.

The questionnaire sought information about the students' previous experiences with L2. Results of question '1' and question '3' indicated that the students, in general, were used to writing on assigned topics, and these topics were often related to the readings discussed in class (see Table 9).

Table 9. Prior Experience - Questionnaire Responses to Questions One, Three, and Nine

Question	Always	Usually	Sometimes	Never	Blank
Q1. Were essay topics in L2 assigned?	33.3%	25%	29.2%	8.3%	4.2%
Q3. Were essay topics in L2 related to class readings?	8.3%	41.7%	45.8%	4.2%	0%
Q9. Did you rewrite essays?	4.2%	12.5%	54.2%	29.2%	0%

Although over 70% of the students used to rewrite their essays at school at least sometimes (question 9, Table 9), responses to question 10, to which some students provided more than one answer, reveal that when the students rewrote their essays, most of the changes they made were in order to correct their language errors (see Table 10).

Table 10: Prior Experience - Changes Made on the Second Draft of an Essay

Q.10 Changes	% of respondents
a- Correct language errors (grammar, diction, spelling)	70.8%
b- Work on organization	16.7%
c- Work on ideas	16.7%
d- Shorten the essay	4.2%

According to question 2, in which the students were allowed to circle more than one technique, the students' former teachers had employed several techniques to teach them writing (see Table 11).

Table 11: Prior Experience - Techniques Teachers Used to Teach Writing at School

Q.2 Writing techniques*	% of respondents
e- We wrote in class.	91.7%
o- We studied grammar and did grammar exercises.	75%
a- We read and imitated examples of famous writers.	58.3%
h- We learned patterns of organization.	45.8%
d- The teacher lectured.	41.7%
l- We wrote research papers.	41.7%
f- We discussed writing.	37.5%
i- We practiced our handwriting.	33.3%
k- We wrote letters to other people.	25%
q- We gave speeches.	25%
n- We wrote journals or diaries.	20.8%
p- We memorized writing done by famous people.	20.8%
g- We read a book about writing.	12.5%
m- We read our papers out loud.	12.5%
b- We read and imitated examples of student writers.	8.3%
j- We peer edited each other's essays.	8.3%
r-(i) Other techniques: Summarizing texts	8.3%
r-(ii) Other techniques: Working on poem	4.2%
c- We copied examples.	0%

*The writing techniques are placed in decreasing order of use.

Table 11 shows that twenty-two students wrote in class, 18 students studied grammar, 14 read and imitated examples of famous writers, 11 learned patterns of organization, 10 said the teacher lectured, and 10 wrote research papers. Each of the remaining responses involved less than nine students who learnt to write by discussing writing, practicing handwriting, writing letters, giving speeches, writing journals, memorising writing done by famous people, reading their papers out loud, and imitating examples of student writers. Only two students said they used to peer-edit each other's essays. No student copied examples. Other techniques included working on poems to improve writing (one student) and summarising texts (two students). Responses to question 2 explained the students' initial frustration with peer-editing. Placing essay evaluation in the students' hands involved a 'redefinition of authority' (Shamim, 1996) to which the students were not accustomed. The students were not used to having peers edit their essays before submitting them to the teacher for evaluation (item j), which may explain why they were reluctant to accept their peers' comments. Moreover, they were unused to trusting student authority, as appears in the few responses to items 'b' and 'm'.

Question 4, which sometimes included more than one answer per student, solicited the ways in which teachers helped their students before an assignment was due (see Table 12).

Table 12: Prior Experience - Teacher's Help Before An Assignment

Q.4 Teacher Techniques	% of respondents
a- Explaining topics	25%
b- Providing students with ideas	16.7%
c- Helping students with examples	16.7%
d- Reading texts	12.5%
e- Asking students to watch organization	12.5%
f- Using essay checklists or outlines	12.5%
g- Pointing out mistakes	8.3%
h- Teachers did not help	8.3%
i- Correcting grammar mistakes	4.2%
j- Extending deadlines	4.2%

Responses to question 4 indicated that teachers helped the students before an assignment by explaining the topics (six students), providing the students with ideas (four students), helping them with examples (four students), reading texts (three students), asking them to watch organization (three students), using a checklist (three students), pointing out mistakes (two students), correcting grammar (one student), and extending deadlines (one student). Two students said their teachers did not help them at all. These results suggest that these students,

whose majority was exposed to a traditional approach to writing, did not get much help from their teachers before writing their essays. Teachers simply assigned writing topics and expected the students to write on them.

Question 5 investigated the techniques the students were taught to use in order to convince their audience of their arguments (see Table 13).

Table 13: Prior Experience - Techniques Students Used to Convince their Audience

Q.5 Techniques	**% of respondents**
a- No response	25%
b- Used logical ideas and facts	20.8%
c- Used argumentative writing	16.7%
d- Used examples	12.5%
e- Used evidence	8.3%
f- Used logical organization	8.3%
g- Used humour	4.2%
h- Avoided logical fallacies	4.2%

Six out of the 13 surveyed students did not respond to this question. Five students reported using logical ideas and facts; four students used argumentative writing; three students used examples; two students used evidence; two students used logical organization; one student used humour; and one student avoided logical fallacies. Responses to this question, like those to question 4, also indicate that teachers also did not provide these students with much instruction on persuasive methods to use in argumentative essay writing.

Question 6 enquired about the methods of organization, which the students used to arrange their ideas in their essays (see Table 14).

Table 14: Prior Experience - Methods of Organization Taught

Q.6 Organization of ideas	**% of respondents**
a- Three essay parts: introduction, body, and conclusion	83.3%
b- No response	8.3%
c- Cause/ Effect; Problem/ Solution	4.2%
d- Order of Importance	4.2%
e- Chronological method of organization	0%
f- Spatial method of organization	0%

Responses to question 6 revealed that the majority (20 students) was taught to organise their essay into three parts: introduction, body, and conclusion. One student was taught to organize ideas according to cause/effect or problem/solution order. Another student arranged ideas

according to their importance. There was no mention of chronological or spatial methods of organization. Two students did not respond. Here too, student responses show that teacher instruction was limited since most students were mainly taught to organize their ideas in an essay according to the three basic essay parts. Only two students were taught how to arrange their ideas within the body paragraphs of an essay (see responses to items c and d in Table 14).

Question 7 investigated the criteria teachers emphasised when grading student essays (see Table 15). The students were allowed to tick as many options as they wanted.

Table 15: Prior Experience - Teacher Emphasis When Grading Essays

Q.7 Emphasized Criteria	% of respondents
b- Clarity of main idea	91.7%
c- Correct grammar and spelling	79.2%
h- Organization	79.2%
l- Use of examples and details	79.2%
f- Neatness and handwriting	45.8%
a- Beauty of language	41.7%
g- Originality and imagination	41.7%
j- Quoting experts and other sources	29.2%
i- Persuasiveness	25%
e- Length of paper	16.7%
d- Expressing student's true feelings honestly	8.3%
k- Truth of student's ideas	8.3%
m- Other	4.2%

In response to question 7, the majority of students said their teachers, when grading essays, emphasised clarity of main idea (22 students), correct grammar and spelling (19 students), organisation (19 students), and the use of examples and details (19 students). Each of the remaining responses involved less than 10 students. Responses to this question were rich compared to student responses to questions 4, 5, and 6 above. Teachers seemed to be more interested in grading student essays, according to specific criteria (see responses to question 8 below), than in teaching the students how to write these essays. This is fairly typical of the traditional approach to teaching.

Question 8 asked the students to include in order of importance three criteria that their teachers most emphasized (see Table 16).

Table 16. Prior Experience - Three Most Emphasized Criteria in Order of Importance

Q.8 Teacher's order of importance when grading	% of respondents
h- Organization	37.5%
b- Clarity of main idea	33.3%
g- Originality and imagination	16.7%
c- Grammar and spelling	12.5%

In response to question 8, nine students said their teachers considered organisation to be the most important characteristic when grading, while eight students said it was clarity of main ideas, four students chose originality and imagination, and three chose grammar and spelling. Although the students considered organization to be the most important criteria teachers used in grading their essays, organization for the majority of these students as indicated in their responses to question 6 above, meant having an introduction, body paragraph(s), and a conclusion in their essays.

Moreover, responses to question 10 revealed that the students were not used to processing writing in the real sense of the term. They used to write one draft then a fair copy of this draft after correcting their own errors, mostly language errors (see Table 10, item a). This meant that they produced no second draft and were not given teacher feedback on how to improve their essays, which in turn may have made it difficult for them in my study to give feedback on their colleagues' essays. Furthermore, the students were not accustomed to comparing their essays against outlines or checklists (see Table 12) and thus found it rather hard to fill out the peer-editing form, which outlined essay components. In any case, peer-editing is a demanding activity that requires good command of cognitive and meta-cognitive strategies, which the students might not have acquired yet, despite the training they had in learning strategies at the beginning of the term.

Thus, the difficulties encountered in getting the students to react positively to peer-editing may best be summarized by Shamim (1996) who argues that one reason for student resistance to a new methodology could be 'the disjunction between the beliefs and assumptions of the learners derived from the culture of the wider community and the specific 'culture' of the innovation' (p. 110). In this case, there was a disjunction between the students' previous collectionist academic culture and peer-editing - which assumes an integrationist academic culture - that employs critical thinking and learner centered approaches.

To counteract learning difficulties arising from the use of new educational methodologies, Cortazzi and Jin (1996) call for cultural synergy: 'convergence of cultures of learning' (p. 27), while Holliday (1996) calls for a 'new *paradigm* of educational awareness' (p. 100 italics in original) which makes the best use of available classroom resources. Moreover, Holliday (1996) believes that insiders to the students' small cultures are better able to employ this new paradigm. They would make use of both the traditional protocols of the language classroom and the new teaching methodology to develop a method that suits students' expectations and their small (classroom) culture. This is what I attempted to do after gaining insight into the reasons for my students' reluctance to engage in peer-editing.

4.2.6 Intervention: Modification of the Peer-Editing Technique

I am an insider to my students' culture of learning. I share with the majority of students the Lebanese nationality. I have also followed a collectionist academic culture and a reproductive attitude to learning, where students are not used to 'extend in their own independent individual fashion the ideas, findings and theories of others' (Ballard, 1996; p. 161). Being an insider to the classroom culture made it rather easy for me to empathise with my students; 'Empathy enables an individual to understand the minds of others and to feel his/her connection with them' (Chen, 2003; p.261). It has also allowed 'shared assumptions about the nature of reality resulting from known behaviour patterns and shared values, which facilitate understanding' (Shah, 2004; p.553).

Accordingly, I made use of my local educational background and my newly emerging understanding of the classroom culture to 'mediate' and modify the technique of peer-editing to suit my students' cultural expectations. Having noticed the difficulty my students had in peer-editing, I spent an additional two class periods practicing peer-editing with them to make them approach this activity more confidently. Moreover, I capitalized on their observed concern for good grades and announced to them that the peer-editing forms would be graded over 10 points and that peer-editing would receive 5% of their course grade. Another change involved the peer-editing time. Having observed the long time it took the students to peer-edit each other's essays during the initial practice sessions, I increased the graded peer-editing time from 15 to 50 minutes in order to allow the students sufficient time to comment on the

essays. Furthermore, to show the students how peer-editing had helped anonymous students from a previous semester to spot their essay weaknesses, I displayed, on the overhead projector, Draft One of an essay then the peer-editor's comments and finally Draft Two, revised in response to the editor's comments. The students were also given hard copies of the two drafts and the completed peer-editing form to review at home. Changes in peer-editing practice took place in weeks four and five.

In week 6, the students wrote their first graded essay in three drafts. The first draft was written in one class period (50 minutes). The next class period, the students took 50 minutes to peer-edit each other's essays, and in the third class period, they took back their own essays and revised them in response to peer feedback then submitted the two drafts and the peer-editing form to me. Analysis of their first drafts and peer-editing forms revealed another problem. Some students had written incomplete first drafts. Unfortunately, incomplete first drafts often made editors unable to fill in the peer-editing form, thus defeating the purpose of peer-editing. One explanation for incomplete drafts could be that they were not graded, so the students did not feel obliged to write whole drafts, knowing that they would have another chance to write them in another period. Another explanation could be that the students suffered from a writer's block. To counteract this difficulty, the students who did not write a complete first draft of Essay One and those who were absent for it (but wrote it later on in my office) lost 10 points out of 100 on their second draft. This little measure resulted in only one student writing an incomplete first draft of Essay Two compared to four incomplete first drafts of Essay One. No student wrote an incomplete first draft of Essay Three.

Nevertheless, after correcting the peer-editing forms and the second draft of Essay One, I felt the students still needed more practice in peer-editing as they demonstrated difficulty in giving specific feedback. Accordingly, I included two additional peer-editing practices, one before Essay Two and another before Essay Three. When the students had edited and rewritten all three essays in response to their peers' feedback, I compared the students' peer-editing results on the three essays to evaluate the effect of the intervention on the students' feedback performance (see Table 17). To ensure the reliability of my grades, I trained my teaching assistant in grading peer-editing forms (see Appendix E) and asked her to grade five forms for each of Essay One, Two, and Three. Inter-rater reliability between my grades and those of my assistant was 0.810 where $p<0.01$.

- *Results of Intervention:*

Three paired-sample t-tests were conducted to test the level of significance of students' peer-editing performance on Essay One and Essay Two (PE1- PE2); Essay One and Three (PE1- PE3); and Essay Two and Essay Three (PE2 - PE3).

Table 17. Students' Performance on Three Peer-editing Forms (1, 2, 3)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	9	5	10	5	6	6.5	7	7.5	7	8	7	5	8	9	9	6	6	4.5	6	9	7	6	8	8.5
2	10	5	8	8	5	7	7	3	8	8	6	8	6	8	9	8	7	7	6	7	8	8	7	6
3	9	6	8	8	5	8	6	6	10	9	6	7	7	6	9	4	8	8	6	9	8	7	8	8

Results revealed no statistically significant difference between the three sets of peer-editing, where (PE1- PE2): t (23) = 0.00, p = 1.00; the mean score 7.08 for PE1 and 7.08 for PE2, and the standard deviation (SD) = 1.52 for PE1 and SD = 1.47 for PE2, d = 0.00; PE1- PE3: t (23) = -0.72 , p = 0.47 ; the mean score 7.08 for PE1 and 7.33 for PE3, and the standard deviation (SD) = 1.52 for PE1 and SD = 1.46 for PE3, d = 0.16; PE2 - PE3: t (23) = -0.82, p = 0.47; the mean score 7.08 for PE2 and 7.33 for PE3, and the standard deviation (SD) = 1.47 for PE2 and SD = 1.46 for PE3, d = 0.17.

However, when the peer-editing performance of individual students was considered, a different picture emerged (see Table 17 where the letters on the horizontal axis represent the 24 students). As stated earlier, students' peer editing performance was graded over 10 points, with an inter-rater reliability score of 0.810 where p<0.01 (see *4.2.6* above *Results of Intervention*). The grade 7 over 10 was chosen as the cut off score since it is the stage where a student starts to demonstrate proper understanding of the criteria of good argumentative essay writing, spots most of the essay's available or missing components, and suggests some content-specific modifications (see Appendix E for the peer editing rubric). An analysis of students' peer-editing performance revealed that in Essay One, ten students had scored above the cut off score 7/10 on their peer-editing form and ten students scored below it; in Essay Two, 11 students had scored above 7/10 compared to seven students who scored below it: while in Essay Three, after more practice of peer-editing skills, 13 students scored above 7/10 compared to eight students who scored below it (see Table 17).

Compared to students' overall reluctance to engage in peer-editing at the beginning of the semester (*see 4.2.5* /observation), by week 12, 13 students (or over 54%) seemed to have

benefited from their training in peer-editing (Table 17). It could be argued that the 13 students had better editing skills to start with than the other students who did not develop in editing. However, Table 11 (*see 4.2.5* /Questionnaire, p.79) indicates that only two students had practiced peer editing before taking this course. Moreover, given the numerous research studies favouring trained over untrained peer-editing (see *2.7.1*), there is a very small chance that the students could have peer-edited essays well had it not been for the training they received during the intervention. Hence, the possibility that these students had developed good editing skills as a result of the intervention is a more likely interpretation of the above data.

4.2.7 Interview Results and Discussion

The above-mentioned intervention managed to change some students' attitudes towards peer-editing, as is apparent in the interview responses discussed below (see Appendix G, interview schedule). Fifteen students volunteered to be interviewed in my office. In response to question (1), all the interviewed students replied that peer-editing was well explained in class. Moreover, the majority of the students gave favourable responses to question 2 (Do you think peer-editing is applicable at this institution?). One student considered that peer-editing was applicable at this institution because it is 'an open cultural setting'. She felt that peer-editing allowed 'more communication, more involvement of students, so it is more interesting … not boring'. However, another considered peer-editing to be applicable but felt 'it is not for our mentality'. When asked to explain what she meant by 'our mentality', she said, 'students believe peers don't know much'. A third felt that peer-editing may be applied but not at 'all academic institutions in the Arab world' because 'students are weak…. They cannot find each other's mistakes.' However, the student felt this problem could be resolved 'if schools prepare students ahead of time'. Another student also considered peer-editing applicable but suggested starting it at school because 'it needs a longer period, a whole year for students to learn it well'.

In response to question 3 (Do you consider peer-editing a successful or unsuccessful revision method?), 14 out of 15 students considered peer-editing a successful revision method. They said it allowed them to spot weaknesses in their colleagues' essays and thus helped them avoid having these problems in their own essays. One student said, 'It helped me

have a clear idea about what I'm writing… helped me improve the organization of my ideas.' Another student felt that peer-editing allowed the students to develop friendships and help each other write better essays as some students 'have a block with the teacher'. One student said, 'It reminds me of the components of each essay point. Checklists alone aren't effective'. Another student thought it was especially helpful for those who don't write well, 'Two people working on the same essay are better than one'. Another said 'it is the process that matters, not like in other courses where there is just an exam that sees what they [the students] have learnt'. On the other hand, one student felt that peer-editing is 'too rigid and structured. One gets fed up.' However, the students' positive responses to questions 1-3 may be influenced by the fact that the students were aware of my enthusiasm for peer-editing as stated earlier (see *4.1.4*), so they may have been eager to please me.

While the majority of the students considered peer-editing a useful revision technique, many indicated lack of trust in their colleagues' abilities to edit. In response to question 4 (Do you trust your peer-editor's comments and respond to them in your writing?), five students said they trusted their colleagues and always responded to them because the comments were 'interesting, and they 'helped find mistakes and correct those'. The rest, however, said they sometimes responded to their editors' comments either because the editors were weak so the student writers were not sure whether 'the comments are correct or not', or because the student writers did not agree with the editors' suggestions. One student said his editor 'was more interested in editing her own paper and paid little attention to mine. She only wrote comments to fill out the form.' Another student said she did not pay attention to her editor's comments because she wanted to 'wait for the teacher's comments'.

Similarly, some students did not consider their own comments very helpful in improving their colleagues' essays. In response to question 5 (Do you feel your comments helped your colleague improve his/her essay?), eight students were confident that they were able to help the writers, while three students said the usefulness of their comments depended on the writer's personality. If the writer was willing to take these comments seriously, then the comments would be helpful in improving the writer's essay. Two students felt their comments were sometimes helpful as they could only spot some of the mistakes in their peers' essays. One considered her comments helpful only in improving the organisation of ideas in her colleague's essay as the colleague disagreed with her on the relevance of some of his ideas and thus would not accept to change them. Another student felt his comments on the

first essay were not helpful because he 'did not know what was wrong with it', but that later on 'the third essay was easy [to edit]'. The students' lack of confidence in their editing abilities may be due to the fact that they were not used to editing essays at school (see Table 11) and to their need for more practice in peer-editing. The above comments point to two other factors that may affect the efficacy of peer-editing as a revision method. One is personality. A student writer may not accept that another student comments on his/her essay. He/she may feel that accepting a colleague's feedback may be a recognition on his/her part that the other student is a better writer than he/she is and thus would put that student at an advantage over him/her. Radecki and Swales (1988) classified students into three groups according to their personalities: Receptors, semi-resistors and resistors depending on their readiness/reluctance to accept feedback and review their drafts. In general, receptors and semi-resistors welcome feedback and respond to it unlike resistors. Not only the writer's personality but also that of the editor may play a role in the writer's reaction to feedback. For example, the editor may lack interpersonal skills, which may discourage the writer from adopting his/her suggestions. Another factor may be the type of comment an editor makes; i.e. whether it is on content, organization, or language (see responses to question 6 below).

In response to question 6, (What aspect(s) of peer-editing do you have difficulty in? Why?), six students said they had difficulty in spotting logical fallacies, as they had not learnt logical reasoning nor were they taught to avoid logical fallacies at school. The students said their teachers used to ask them to change an idea because 'it is not relevant' or 'it does not make sense'. In other cases, teachers simply asked the students to rewrite or change a certain idea without explaining what was wrong with it. On the other hand, five students had difficulty completing the second page of the form because they did not know what to 'add' and what to 'delete'. Another student considered the peer-editing form too specific and 'could not find mistakes' in the writer's paper. However, when this student was asked whether it was better to ask for open comments, he said 'peer-editing without the form wouldn't be useful'. Moreover, two students had difficulty reading the students' hand writing, so they could not comment much. Only one student said she had no difficulty filling out the form. She was one of the two students who had practiced peer-editing at school (see Table 11). Hence, the main difficulties were in spotting logical flaws in reasoning as well as in writing specific comments.

In response to question 7 (Is having the same peer-editor throughout the semester a good or bad idea?) six students said they preferred having the same peer because they could get used to his/her way of thinking and therefore would not feel ill at ease sharing their essays. On the other hand, nine students preferred changing the peer for every essay so as 'to get feedback from different perspectives' and 'get new ideas'. Another advantage of changing peers according to one student is that, 'One puts his best effort forward with a new editor. After that, he relaxes and gets bored if same editor'.

The majority of the students responded to question 8 (Would you like to be grouped according to language ability or friendship?) by preferring to be grouped according to language ability (12 students) rather than friendship (three students). Their response may have been influenced by the fact that the teacher at the beginning of the semester had pointed out the advantages of pairing students off according to language ability.

In response to question 9, (What can the instructor do to motivate you to take peer-editing seriously?), all students said that grading the peer-editing form was the best motivation for them. In addition to the graded peer-editing forms, four students said they were motivated by their peers' comments which helped them improve their essays. Another four students mentioned that finding mistakes in their colleagues' papers helped them avoid making such mistakes in their own papers. One student indicated that changing the peer for every essay would motivate the editor to do serious peer-editing in order to leave a good impression on the writer, while another felt that having the same peer would allow the editor to understand the writer better and therefore work harder at peer-editing his/her essay.

Finally, in response to question 10 (How can peer-editing forms be improved?), eight students thought the peer-editing forms were fine and did not need improvement, while two students suggested removing the 'keep' section from the second page of the peer-editing form as they felt it was not useful in improving the essay. Another two students suggested writing free comments instead of filling out the second page with ideas to 'add' or 'delete'. Two students felt the peer-editing form was not very helpful but did not suggest ways to improve it. Rather they said that a longer practice period might help them know what to look for in an essay. One student suggested rearranging items according to paragraphs rather than according to Content, Organisation, and Credibility (see Appendix E).

4.2.8 Limitations of Study Two

Limitations of this study arise from its data collection methods. To start with, observation may lack dependability when the researcher is the only one to observe the students as was the case in this study. The researcher may be biased or see the things he/she is looking for. To counteract this problem, I triangulated my observations with the information obtained from the students' responses to the semi-structured questionnaire, and I triangulated the students' written feedback on the peer-editing form, and their responses during the semi-structured interviews. Similar to observation, questionnaire responses have their limitations since they may provide only what the students consider to be the methods their teachers had followed in class, not what the teachers actually used. The students may have forgotten some of the ways they were taught to write in English and confuse these methods with those of learning to write in Arabic or another language. Furthermore, the students' responses to my interview questions may not have revealed the whole truth. Being the researcher as well as the instructor, I may have intimidated the students and influenced the objectivity of their interview responses. Also, the fact that I interviewed the students in my office put me in a position of power over them. They might have wanted to please me with their answers, which would have negatively influenced the results of this study. To reduce this possible negative effect, the students were informed that their answers, whether positive or negative, would be very helpful for my research as they would enlighten me about the actual efficacy of peer-editing as an essay revision method and would help me decide whether or not to continue using it in the future in my writing classes (see *3.6.3*).

4.2.9 Ethical Considerations

Ethical guidelines were honored while carefully weighing the consequences of my observation decisions on the credibility of my observation results. I decided against getting the students' consent to observe them while they engaged in peer-editing as the observation does not put them at risk. On the contrary, I considered that informing the students of the observation would make them self-conscious and thus affect their performance (see *3.6.1*). Moreover, although the questionnaires were not anonymous, there was little likelihood of receiving false responses on the questionnaire since the information sought is not sensitive or embarrassing (see *3.7.1* for ethical considerations of questionnaires). On the other hand, the students' consent to use their essays and peer-editing forms for research was sought and

obtained. They were also informed that their interview responses would be used as part of a study on peer-editing and were promised confidentiality (see *3.6.3*).

4.3 Study Three

4.3.1 Background of the Study

The following findings led to Study Three: 1) There was no significant correlation between peer feedback and the quality of revised essays (Study One, q.1); 2) the students who practiced peer-editing have improved their writing skills in new final exam essays, which had not received peer feedback (Study One, q.2) (see *4.1.4*); 3) some peer-editors had improved their peer-editing skills after practicing the modified technique of peer-editing (Study Two, q.1). The findings of the two previous studies made me wonder whether or not the students' improved writing in their new final exam essay as well as the development in the peer-editing skills of some students was more the result of teacher instruction in editing, and student practice in giving feedback, rather than the result of peer feedback, given the distrust some students manifested towards peer responses. I hypothesized that this improvement may be due to the students' internalization of the components of the argumentative essay, which are stated on the peer-editing form. Hence, Study Three examined whether the students could be taught to improve their revised drafts through self-editing; whether teacher instruction in editing would develop the students' ability to produce well-written new essays at the end of the semester, and whether the students could self-edit and reduce the incidence of specific rule-based and non rule-based language errors in their essays. Study Three attempted to answer six research questions, stated earlier (see 1.6) but repeated here for convenience:

Q6) Do the students improve the overall quality of their revised drafts due to teacher instruction in essay revision and editing or to trained peer feedback on their essays?

Q.7) Is trained peer-editing or trained self-editing more successful in reducing the percentage of rule-based language errors in revised drafts?

Q.8) Is trained peer-editing or trained self-editing more successful in reducing the percentage of non rule-based language errors in revised drafts?

Q9) Does trained peer-editing or trained self-editing enable the students to improve the overall quality of new essays that have not received any teacher or peer feedback?

Q.10) Is trained peer-editing or trained self-editing more successful in reducing the percentage of rule-based language errors in new essays?

Q.11) Is trained peer-editing or trained self-editing more successful in reducing the percentage of non rule-based language errors in new essays?

Q.12) What are the students' opinions of trained peer-editing as a revision method of essay writing?

Q.13) What are the students' opinions of trained self-editing as a revision method of essay writing?

4.3.2 Research Design

Study Three employed a quasi-experiment and different quantitative measurements (see 3.1) to answer research questions 6, 7, 8, 9, 10, 11, 12, and 13 stated above. Quantitative measurement 'provides the basis for more precise estimates of the degree of relationship between concepts' (Bryman, 2004; p.66). Although quantitative measurement has often been criticised for failing to create a link between research and daily life and for creating a static view of society (Bryman, 2004), this does not apply in this quasi-experiment because real-life classroom data was collected in order to monitor any changes in student performance as a result of the intervention.

During the quasi-experiment, the experimental group engaged in peer-editing, while the comparison group engaged in self-editing. The design involved the collection of data at several points in time in order to determine whether peer-editing or self-editing improves the students' writing ability in revised and new essays and whether it reduces their language errors in these essays. Since the two groups were not formed randomly, it was essential to 'make the comparison group as similar to the experimental group as possible on all factors except for the treatment [intervention] (Muijs, 2004; p.32) although I was aware that complete parity would not be possible in a classroom context (see *4.3.4*).

4.3.3 Research Sample

The student sample comprised two classes of English 3: a comparison and an experimental group. The comparison group included 18 students, while the experimental group included 22. According to Muijs (2004), using a parallel class as the comparison group

'should ensure that the groups are comparable, as students are usually assigned to classes in a random manner' (p. 28). Still, the equivalence of the two groups may be strengthened by matching. Matching students' characteristics can strengthen the similarity of the two groups before the intervention and reduces the chances of alternative explanations of the experiments' results. To match students, knowledge of the possible factors that may affect the outcome of the quasi-experiment is required (Cohen, Manion, and Morrison, 2000; de Vaus, 2001; Muijs, 2004). These data were obtained through two instruments: a questionnaire and a diagnostic essay described below (see *4.3.4*). The sample, which was composed of 43 students, is large enough according to Borg and Gall (1979 in Cohen, Manion, and Morrison, 2000) who consider sufficient a sample of not less than 30 cases for correlational research and not less than 15 cases for experimental methodologies.

4.3.4 Method

The students in the comparison and experimental groups attended different classes of English 3. In both classes, I was the instructor and the researcher. The students met three times a week for 15 weeks. In the first week of the semester and before introducing editing (the intervention), all students wrote a diagnostic essay in two drafts over two 50-minute class periods. Moreover, they all filled in a structured questionnaire (see Appendix I) to determine their educational background. The students were requested to fill in the questionnaire in class. They were also requested to write their names in order to facilitate seeking clarification of some vague responses. The results of the questionnaire were used along with the results of the diagnostic essay to determine whether or not the two groups were equivalent. If they were equivalent, any change in language performance between them after the peer-editing intervention could be considered the result of the intervention. The comparison I carried out between the two groups' performance on the diagnostic essay revealed some difference in the students' writing ability in favour of the experimental group. This may have been due to the different writing exposure they had at school (see discussion of Tables 19-26 below). Accordingly, to ensure that the students in the two groups would have rather similar essay writing background, I considered as pre-test (T_1), the first draft of Essay One (causal argument), instead of the diagnostic essay which I had initially planned to use. The first draft of the causal argument was written before getting peer feedback but after receiving training in editing content, organisation, and grammar. A comparison carried out on the two groups' scores on the first draft of the causal argument showed that they had similar writing ability.

Between the second and fifth week of the semester, both student groups were taught the components of the argumentative essay. In addition, they were given explicit grammar instruction in how to correct the specific rule -based and non rule-based language errors. Students practiced editing for content, organisation, and language errors in four 50-minute class periods using sample essays written by anonymous students from a previous semester (see *4.3.5*). During the training sessions, I modelled to the students how to edit argumentative essays. Previous essays that included weak content, weak organisation, and the language errors under study were put on transparencies. With my help, the students collectively identified vague or irrelevant content and faulty organisation of ideas as well as pointed out the four types of errors under study. I modelled to the students how to handle language errors by underlining them on the first draft and writing their codes since Ferris and Roberts (2001) report that the students' 'most popular feedback choice (48%) was for the teacher to mark the error and label it with an error code' (p. 174). When the errors had been identified, they were copied on the editing form along with their line number in the first draft and then they were corrected. The students were urged to correct language errors because in Chandler's (2003) study, error correction resulted in 'the largest increase in accuracy both for revision and for subsequent writing' (p. 293).

The students in both groups were asked to write in class three graded essays in week six, eight, and ten respectively. Moreover, before the first draft of each essay was written in class, both groups were given an additional practice editing session so as to help the students remember what they were taught in terms of essay content, organisation, and language. Both groups wrote their graded essays in three class periods (first draft, editing, second draft).

After the first draft was written, the students in the experimental group engaged in peer-editing each other's essays. Unlike the case in Study One and Study Two, and to cater for the students' preferences (as expressed in the interviews carried out in Study Two), the students in Study Three were asked to choose a different peer to edit each essay. When the first draft of Essay One had been written, peer-editors swapped papers in the next class period and edited each other's content, organisation, and language errors for a whole class period. In the third class period, the students took back their first draft with the respective peer-editing form and proceeded to revise their essays in response to their peers' feedback and according to the knowledge they had gained from teacher instruction in editing argumentative essays. At

the end of the third class period, the students in the experimental group submitted their second drafts along with their first drafts and the peer- editing forms.

On the other hand, the students in the comparison group followed the same procedure as that of the experimental group except that they engaged in self-editing the content, organisation of ideas, and language errors in their essays in light of teacher instruction in editing argumentative essays, which they had received early in the semester. The students submitted both drafts and the self-editing form at the end of the third class period.

In weeks eight and ten, the same procedure was repeated by each group for Essay Two and Essay Three respectively. In week 16 of the semester, the two groups were asked to write a two-draft final exam essay (T_2) in two hours. This time, both groups self-edited the first draft of T_2 in order to test whether or not being engaged in peer-editing or self-editing had improved their writing ability at the end of the semester (see Table 18 for a summary of the intervention).

Table 18: The Intervention

Pre-test stage	Writing the diagnostic essay; filling in the questionnaire
Intervention stage 1	Four sessions of practice editing and grammar instruction for both groups using an editing form and grammar exercises
Intervention stage 2	Three essays, each written in two drafts over two class periods; the experimental group engages in peer-editing first drafts of the three essays; the comparison group self-edits the first drafts of the three essays.
Post-test stage (T_2)	A final exam essay written in two drafts by both groups; both the experimental and comparison groups self-edit their first draft of the final exam essay.

4.3.5 Quantitative Instruments of Data Collection

Four quantitative instruments were used, namely a questionnaire, an essay grading rubric, an editing rubric, and a formula to calculate language errors. To account for variables that may be responsible for changes in the students' language ability, a structured questionnaire was distributed early in the semester to generate specific information about the students in a short period of time. Adapted from Leibman (1992), the questionnaire (see Appendix I), was administered to all the students in the second week of the semester in order to identify differences in their age, gender, personality, language ability, and the methods they were exposed to when learning English. Great care was taken in wording the questionnaire in

order to avoid ambiguity and leading questions. Moreover, the questions were arranged from simple to complex to motivate participants to answer the questions.

To answer questions 6 and 9 (Q.6: Do the students improve the quality of their revised drafts due to teacher instruction in essay revision and editing or to trained peer feedback on their essays? And (Q.9: Does trained peer-editing or trained self-editing better enable the students to improve the overall quality of new essays that have not received any teacher or peer feedback?), the student essays were graded using the multiple trait scoring rubric adapted from Hamp-Lyons (Appendix A). Moreover, since Study Three is re-investigating the research questions examined in Study One, the peer- and self-editing forms in Study Three were rated using the 3-point editing scale (see *3.7.2*) adapted from McGroarty and Zhu (1997) that was utilised in Study One. In order to motivate the students to edit essays to the best of their ability, editing was allotted 5% of the course grade. However, peer-editing grades are not reported in this study. On the other hand, and as stated earlier, Study Three involved the examination of specific language errors to see if the students would be able to reduce error frequency in writing as a result of peer or self-editing. Thus, in Study Three, a new section that addresses language errors was added to the editing form used in Study Two (Appendix H).

Another quantitative method of data collection was used to determine whether or not peer-editing or self-editing intervention reduces certain types of language error in the students' essays. Hence, the students' written language ability was measured by calculating the number of specific error types (rule-based and non rule-based), found in 100 words using the following formula: total number of errors under study /total number of words per essay $\times$ 100 (Chandler, 2003). The specific language errors under investigation were subject/verb agreement errors (coded S/V Agr.); pronoun agreement errors (coded Pr. Agr.); wrong word choice errors (coded W. W.); and awkward sentence structure errors (coded S. S.). A sentence was considered awkward when it was poorly written, yet grammatical (not a sentence fragment or a run-on sentence). These four errors were selected because they usually recur in student essays. The first two errors were labelled rule-based errors (errors that may be corrected by applying grammar rules) and the other two were non rule-based (errors that may not be corrected by applying grammar rules). (See Appendix L for essay samples of coded error).

All the instruments had been piloted and evaluated with students who were not part of this study in order to ensure the instruments' simplicity and efficacy and to avoid ambiguity (Bell, 1987; Fogelman, 2002). Moreover, my evaluation of essays and editing forms was compared against that done by an experienced teacher in order to check for reliability (*see 4.3.8*).

4.3.6 Qualitative Instruments of Data Collection

In order to establish the students' opinions of peer and self-editing as methods of essay revision, interviews were carried out in my office with 11 students from the experimental group and 10 from the comparison group. Other qualitative instruments of data collection are the document analyses of the revised drafts and of peer- and self-feedback of the experimental and comparison groups.

4.3.7 Data Collection and Results

- *Data Collection*

The questionnaire responses were coded to facilitate data analysis and transferred to summary sheets which included each participant's name and coded answers. For example, in question 1 of the questionnaire, if a student had studied English for a period of 5-8 years, the response was coded (b) (see Appendix I). Moreover, the students' first and second drafts of each essay (diagnostic, Essays 1, 2, and 3, and final exam essay) were graded for both groups using a rubric that follows the previously-mentioned Hamp-Lyons multiple trait approach (see Appendix A). The grades of first drafts were not disclosed to the students as they were corrected and graded for research purposes only at the end of the semester. Also, language errors found in each draft of each essay were calculated according to the above-mentioned formula *(see 4.3.5)*. Moreover, the students' feedback on the editing forms and the revisions they made on their second drafts were compared and analysed (see below).

- *Questionnaire Results*

The results of the questionnaire revealed that the number of years that the students had studied English was similar in the two groups, with 14 out of 22 students (0.63%) from the experimental group studying English more than 8 years, compared to 11 out of 18 students (0.61%) from the comparison group. However, there were some differences between the experimental and comparison groups in terms of essay writing (see Table 19 below).

Table 19. Techniques Teachers Used to Teach Writing at School

Q2. What techniques did your teacher use to teach you writing in English? (Circle as many as apply.)	N = 22 Exp. Group Responses	N= 18 Comp. Group Responses
e- We wrote in class.	21 (95%)	17 (94%)
o- We studied grammar and did grammar exercises.*	17 (77%)	17 (94%)
f- We discussed writing.*	17 (77%)	16 (89%)
h- We learned patterns of organization.*	16 (73%)	15 (83%)
l- We wrote research papers.	14 (64%)	12 (67%)
d- The teacher lectured.	13 (59%)	12 (67%)
n- We wrote journals or diaries.	13 (59%)	9 (50%)
j- We peer-edited each other's essays.*	13 (59%)	15 (83%)
a- We read and imitated examples of famous writers.*	11 (50%)	4 (22%)
k- We wrote letters to other people.	9 (41%)	9 (50%)
i- We practiced our handwriting.	8 (36%)	6 (33%)
m- We read our papers out loud.	6 (27%)	6 (33%)
q-We gave speeches.	5 (23%)	5 (28%)
g- We read a book about writing.	4 (18%)	7 (39%)
b- We read and imitated examples of student writers.	4 (18%)	2 (11%)
c- We re-copied examples.	2 (9%)	1 (6%)
p- We memorized writing done by famous people.	0 (0%)	1 (6%)

* refers to differences of 10% or more between the two groups.

Items (a), (f), (h), (j), and (o) of Table 19 show that the two groups had different exposure to writing. The experimental group had been more involved in reading and imitating examples of famous writers, more engaged in discussing writing, more exposed to patterns of organisation, more involved in peer editing, and in grammar exercises than the comparison group.

Another difference appeared in teachers' emphases when grading the students' essays (see Table 20 below).

Table 20. Teacher Emphasis When Grading Essays

Q3. Which three things from the list below did your teachers emphasize when they graded your essays? (Circle as many as apply.)	Exp.	Comp.
b- Emphasize clarity of main idea	19 (86%)	16 (89%)
h- Organization	19 (86%)	15 (83%)
c- Correct grammar and spelling	18 (82%)	15 (83%)
l- Use of examples and details*	15 (68%)	16 (89%)
a- Beauty of language*	8 (36%)	9 (50%)
g- Originality and imagination*	7 (32%)	8 (44%)
i- Persuasiveness	7 (32%)	7 (39%)
e- Length of paper	4 (18%)	2 (11%)
f- Neatness and handwriting*	3 (14%)	9 (50%)
j- Quoting experts and other sources	2 (9%)	2 (11%)
d- Express student's true feelings honestly	2 (9%)	3 (17%)
k- Truth of student's ideas	1 (5%)	2 (11%)
m- Other	0 (0%)	0 (0%)

Teachers of the comparison group focused more on the use of examples and details (l), beauty of language (a), originality and imagination (g), and neatness and handwriting (f) than did teachers of the experimental group. Moreover, students in the comparison group rated organisation as the criterion most emphasised by their teachers when grading, followed by grammar and spelling as the second most emphasised, and good examples and details as the third most emphasised criterion. However, students in the experimental group rated organisation as the criterion most emphasised by their teachers when grading, followed by clarity of main idea as the second most emphasised, and correct grammar and spelling as the third most emphasised criterion.

 Moreover, the two student groups differed in how often they rewrote essays (see Table 21 below).

Table 21: Rewriting Essays

Question 4	Always		Usually		Sometimes		Never	
	Exp.	Comp.	Exp.	Comp.	Exp.	Comp.	Exp.	Comp.
Q4. At high school, did you rewrite your English essays? (Circle one.)	6 (27%)	2 (11%)	4 (18%)	1 (6%)	10 (45%)	8 (44%)	2 (9%)	7 (39%)

The experimental group tended to re-write their essays more often than the comparison group. Moreover, the kind of changes they made when they rewrote their essays showed major discrepancy between the two groups (see Table 22 below).

Table 22. Changes Made on the Second Draft of an Essay

Q5. When you rewrote essays, what sort of changes did you make? (Circle all that apply).	Exp.	Comp.
c- Changes in language*	15 (68%)	10 (56%)
a- Changes in Content*	11 (50%)	5 (28%)
b- Changes in organization*	8 (36%)	3 (17%)
d- None	0 (0%)	0 (0%)
e- No response	0 (0%)	2 (11%)

* refers to differences of 10% or more between the two groups.

Responses to question 5 reveal that the students of the experimental group worked more on correcting errors in language, content, and organisation than did the students of the comparison group. Other differences between the two groups appeared in terms of their attitudes to peer-editing (q. 6).

Table 23. Attitude Towards Editing

Q6. If you were asked to evaluate a student's essay, how would this practice make you feel?	Always		Usually		Sometimes		Never		No Response	
	Exp.	Comp	Exp.	Comp	Exp.	Comp	Exp.	Comp	Exp.	Comp
i) Worried about offending the writer*	4 (18%)	1 (6%)	5 (23%)	2 (11%)	7 (32%)	10 (56%)	6 (27%)	4 (22%)	0	1 (6%)
ii) Eager to please the writer with kind word	3 (14%)	0	3 (14%)	3 (17%)	11 (50%)	9 (50%)	5 (23%)	5 (28%)	0	1 (6%)
iii) Confident of your ability to point out the essay's strength and weakness*	8 (36%)	3 (17%)	8 (36%)	9 (50%)	6 (27%)	6 (33%)	0	0	0	0
iv) Unsure of your ability to peer-edit*	1 (5%)	0	3 (14%)	4 (22%)	11 (50%)	10 ((56%)	7 (32%)	3 (17%)	0	1 (6%)

* refers to differences of 10% or more between the two groups.

The two groups' responses to question 6 revealed that they had different attitudes regarding peer-editing. More students in the experimental group than in the comparison group were 'always' or 'usually' worried about offending writers with their comments and hence were more eager to please writers with kind comments than were members of the comparison group. In contrast, the students of the comparison group appeared less confident and less sure of their ability to peer-edit (see Table 23, items iii and iv).

With respect to question 7, the two groups showed little difference in terms of trust in their peers' ability to edit their essays (see Table 24 below).

Table 24. Trust in Editors

Question 7	Always		Usually		Sometimes		Never	
	Exp.	**Comp.**	**Exp.**	**Comp.**	**Exp.**	**Comp.**	**Exp.**	**Comp.**
Q7. Do you trust a colleague's comments about your writing?	2 (9%)	0	7 (32%)	7 (39%)	13 (59%)	11 (61%)	0	0

In general, both groups seemed to trust each other's feedback more often than not. Likewise, similar results appeared in the students' evaluation of trained peer-editing ability (see Table 25 below).

Table 25. Editors' Language-editing Ability

Question 8	Strongly Agree		Agree		Disagree		Strongly Disagree	
	Exp.	**Comp.**	**Exp.**	**Comp**	**Exp.**	**Comp**	**Exp.**	**Comp.**
Q8. Peer-editors, when properly trained, may correct each other's language errors.	3 (14%)	2 (11%)	19 (86%)	15 (83%)	0	1 (6%)	0	0

Both groups seemed to agree that the students are able to edit properly when trained in peer-editing (question 8). On the other hand, the two groups differed in the source they sought for help to improve their language (see Table 26 below).

Table 26. Help in Editing

Question 9 (More than one answer were circled.)	Teacher's Help		Colleague's Help		Grammar Book		Yourself	
	Exp.	**Comp**	**Exp.**	**Comp.**	**Exp.**	**Comp.**	**Exp.**	**Comp.**
Q9. To improve your language ability, you depend on:*	16 (73%)	9 (50%)	4 (18%)	0	1 (5%)	1 (6%)	5 (23%)	12 (67%)

In response to question 9, most students of the experimental group favoured seeking teacher's help to improve their language over any other source, unlike the students of the comparison group who preferred to depend on self-editing. Moreover, a few students of the experimental group sought linguistic help from a colleague, no member of the comparison group did.

Finally, there were little differences in the students' evaluation of their own language ability (see Table 27 below).

Table 27. Writers' language Ability

Question 10	No response		Excellent		Good		Average		Poor	
	Exp.	Comp	Exp.	Comp.	Exp.	Comp.	Exp.	Comp	Exp.	Comp.
Q10. Rate your language ability	1 (5%)	0	0	2 (9%)	15 (68%)	11 (61%)	6 (27%)	5 (28%)	0	0

The majority of the students in the two groups considered their language ability to be good, while some evaluated it as average (question 10).

- *Results of the Quasi-experiment*

In order to address question 6, (Do the students develop the overall quality of their revised drafts due to teacher instruction and their revision of the students' essays or to peer feedback on their essays?), a multivariate analysis of covariance (MANCOVA) test was conducted. The treatment conditions (comparison versus experimental) were used as an independent variable, the students results on the first and second drafts of the position argument essay as dependent variables. The causal argument (T_1) was used as covariate. The experimental group revised their essays in response to peer feedback while the comparison group self-edited their essays. However, both groups had received teacher instruction in editing. The results showed that there was no significant difference between the two groups on the first draft, $F (1, 37) = 1.66$, $p = 0.204$; the mean score and the standard deviation (SD) of the comparison group and the experimental group were 57.88, SD = 8.51 and 59.59, SD = 10.96 respectively. However, there was a statistically significant difference between the comparison and experimental group in favour of the experimental group on the second draft (written after the treatment) at $p < 0.1$ alpha level: $F (1, 37) = 3.12$, $p = 0.08$ ($\eta_p^2 = 0.08$). The mean score and the standard deviation (SD) of the comparison group and the experimental group were 64.16, SD = 11.71 and 67.22, SD = 10.80 respectively.

To answer question 7, (Is trained peer-editing or trained self-editing more successful in reducing the percentage of rule-based language errors in revised drafts?), the second draft of the position argument and the first draft of the causal argument (T_1) were compared and the

difference in the percentage of rule-based errors of the comparison and experimental groups was calculated. The percentage of rule-based errors which the comparison and the experimental groups made on the second draft of the position argument was measured according to the following formula: the number of rule-based errors divided by the total number of words per essay x 100. The percentage of rule-based language errors that the students of the comparison group made on the position argument were as follows (see Table 28 below):

Table 28. Percentage of Rule-Based Language Errors of the Comparison Group (Position argument)

Student	Position Argument (Draft 1)			Position Argument (Draft 2)		
	# errors	# words	% error	# errors	# words	% error
1	2	410	0.49%	1	799	0.13%
2	0	379	0.00%	1	523	0.19%
3	4	353	1.13%	2	481	0.42%
4	4	239	1.67%	2	399	0.50%
5	1	472	0.21%	1	790	0.13%
6	0	297	0.00%	1	576	0.17%
7	4	499	0.80%	2	474	0.42%
8	0	286	0.00%	2	690	0.29%
9	0	254	0.00%	2	347	0.58%
10	10	509	1.96%	9	749	1.20%
11	2	283	0.71%	3	301	1.00%
12	1	481	0.21%	0	595	0.00%
13	2	240	0.83%	2	347	0.58%
14	4	403	0.99%	2	703	0.28%
15	0	239	0.00%	2	617	0.32%
16	5	436	1.15%	5	602	0.83%
17	2	278	0.72%	2	260	0.77%
18	4	408	0.98%	6	435	1.38%

Results for the experimental group made on drafts 1 and 2 of the position argument are shown in Table 29 below:

Table 29. Percentage of Rule-Based Language Errors of the Experimental Group (Position argument)

Student	Position 1			Position 2		
	# errors	# words	% error	# errors	# words	% error
1	1	252	0.40%	3	460	0.65%
2	4	400	1.00%	2	485	0.41%
3	2	329	0.61%	2	836	0.24%
4	5	525	0.95%	4	614	0.65%
5	0	154	0.00%	0	598	0.00%
6	7	481	1.46%	4	544	0.74%
7	1	309	0.32%	2	605	0.33%
8	4	311	1.29%	6	555	1.08%
9	0	379	0.00%	0	934	0.00%
10	1	226	0.44%	0	496	0.00%
11	0	362	0.00%	0	642	0.00%
12	5	266	1.88%	4	420	0.95%
13	2	413	0.48%	0	958	0.00%
14	0	312	0.00%	0	446	0.00%
15	5	357	1.40%	3	403	0.74%
16	2	328	0.61%	0	387	0.00%
17	2	392	0.51%	1	407	0.25%
18	1	346	0.29%	4	401	1.00%
19	1	497	0.20%	1	892	0.11%
20	0	320	0.00%	1	462	0.22%
21	1	386	0.26%	3	472	0.64%
22	0	328	0.00%	0	517	0.00%

A univariate analysis of covariance (ANCOVA) was conducted. The treatment conditions (comparison versus experimental) were used as an independent variable and the students' percentage of rule-based errors on the second draft of the position argument as dependent variable, and the students' percentage of rule-based errors on the causal argument (T_1) as covariate. Results showed that there was a statistically significant difference between the comparison and experimental groups in favour of the experimental group for rule-based language errors made on the second draft of the position argument at an alpha level of 0.1 : F (1, 37) = 2.0, p = 0.16 (η_p^2 = 0.05) . The mean score and the standard deviation (SD) of the comparison group and the experimental group were 0.51, SD = 0.38 and 0.36, SD = 0.37 respectively.

Similarly, to answer question 8, (Is trained peer-editing or trained self-editing more successful in reducing the percentage of non rule-based language errors in revised drafts?), the percentage of non rule-based errors which the comparison and the experimental groups made on the second draft of the position argument was also measured according to the above formula. Results of the comparison group were as follows (see Table 30 below):

Table 30. Percentage of Non Rule-Based Language Errors of the Comparison Group (Position argument)

Student	Position/draft1			Position/draft 2		
	# errors	# words	% error	# errors	# words	% error
1	9	410	2.20%	23	799	2.88%
2	5	379	1.32%	8	523	1.53%
3	11	353	3.12%	20	481	4.16%
4	3	239	1.26%	8	399	2.01%
5	2	472	0.42%	14	790	1.77%
6	5	297	1.68%	7	576	1.22%
7	5	499	1.00%	5	474	1.05%
8	6	286	2.10%	13	690	1.88%
9	7	254	2.76%	1	347	0.29%
10	11	509	2.16%	12	749	1.60%
11	13	283	4.59%	9	301	2.99%
12	8	481	1.66%	8	595	1.34%
13	4	240	1.67%	13	347	3.75%
14	3	403	0.74%	19	703	2.70%
15	3	239	1.26%	10	617	1.62%
16	11	436	2.52%	10	602	1.66%
17	12	540	2.22%	7	350	2.00%
18	7	389	1.80%	13	433	3.00%

On the other hand, results for the experimental group made on the position argument are shown in Table 31 below.

Table 31. Percentage of Non Rule-Based Language Errors of the Experimental Group (Position argument)

Student	Position 1			Position 2		
	# errors	# words	% error	# errors	# words	% error
1	2	252	0.79%	2	460	0.43%
2	2	400	0.50%	6	485	1.24%
3	11	329	3.34%	13	836	1.56%
4	9	525	1.71%	11	614	1.79%
5	2	154	1.30%	9	598	1.51%
6	12	481	2.49%	11	544	2.02%
7	4	309	1.29%	9	605	1.49%
8	24	311	7.72%	21	555	3.78%
9	2	379	0.53%	6	934	0.64%
10	0	226	0.00%	5	496	1.01%
11	5	362	1.38%	8	642	1.25%
12	5	266	1.88%	4	420	0.95%
13	11	413	2.66%	11	958	1.15%
14	6	312	1.92%	8	446	1.79%
15	3	357	0.84%	4	403	0.99%
16	7	328	2.13%	5	387	1.29%
17	14	392	3.57%	22	407	5.41%
18	11	346	3.18%	9	401	2.24%
19	3	497	0.60%	3	892	0.34%
20	2	320	0.63%	5	462	1.08%
21	2	386	0.52%	9	472	1.91%
22	14	328	4.27%	17	517	3.29%

The results show no statistically significant difference between the comparison and experimental groups in terms of the non rule-based errors made on the position argument: $F(1, 37) = 1.32$, $p = 0.25$, ($\eta_p^2 = 0.03$). The mean score and the standard deviation (SD) of the comparison group and the experimental group were 2.08, SD =0.98 and 1.65, SD = 1.19 respectively.

Furthermore, to triangulate the results of questions 6, 7 and 8 obtained from comparing the position argument written by the two groups, the same tests were repeated for the problem/solution argument. Hence, another MANCOVA test was carried out for the problem/solution essay (written in week 10) to determine the overall essay quality. A statistically significant difference was found between the comparison and experimental group in favour of the experimental group on the first draft at $p < 0.05$ alpha level: $F(1, 37) = 4.14$, $p = 0.04$. The mean score and the standard deviation (SD) of the comparison group and the experimental group were 55.77, SD = 9.34 and 60.77, SD = 7.47 respectively. However, there was no statistically significant difference on the second draft of the problem/solution essay, $F(1, 37) = 0.04$, $p = 0.83$, ($\eta_p^2 = 0.13$). The mean score and the standard deviation (SD) of the

comparison group and the experimental group were 66.55, SD = 11.16 and 66.13, SD = 8.02 respectively.

Also, to determine whether there was statistically significant improvement on the rule-based and non rule-based language errors between the second draft of the problem/solution argument and the first draft of the causal argument (T_1), the difference in the percentage of rule-based errors of the two groups was calculated in the second draft of the problem/solution argument according to the above-mentioned formula. Results for the comparison group made on the problem/solution argument were as follows (see Table 32 below):

Table 32. Percentage of Rule-Based Language Errors of the Comparison Group (Problem/solution argument)

Student	Prob. Solution 1			Prob. Solution 2		
	# errors	# words	% error	# errors	# words	% error
1	1	369	0.27%	0	858	0.00%
2	1	489	0.20%	1	602	0.17%
3	6	435	1.38%	6	595	1.01%
4	1	194	0.52%	3	406	0.74%
5	1	503	0.20%	0	693	0.00%
6	0	70	0.00%	1	499	0.20%
7	3	263	1.14%	5	464	1.08%
8	2	296	0.68%	2	338	0.59%
9	0	297	0.00%	3	615	0.49%
10	12	398	3.02%	15	717	2.09%
11	14	305	4.59%	10	339	2.95%
12	3	512	0.59%	2	492	0.41%
13	6	454	1.32%	3	468	0.64%
14	1	354	0.28%	4	633	0.63%
15	1	260	0.38%	1	674	0.15%
16	6	279	2.15%	6	667	0.90%
17	4	554	0.72%	5	649	0.77%
18	4	407	0.98%	6	434	1.38%

The experimental group showed the following results (see Table 33 below):

Table 33. Percentage of Rule-Based Language Errors of the Experimental Group (Problem/solution argument)

Student	Prob. Solution (Draft 1)			Prob. Solution (Draft 2)		
	# errors	# words	% error	# errors	# words	% error
1	0	273	0.00%	0	399	0.00%
2	3	367	0.82%	0	433	0.00%
3	1	345	0.29%	0	592	0.00%
4	3	465	0.65%	2	581	0.34%
5	1	278	0.36%	0	718	0.00%
6	8	467	1.71%	11	492	2.24%
7	4	467	0.86%	1	643	0.16%
8	4	274	1.46%	5	666	0.75%
9	0	303	0.00%	8	471	1.70%
10	2	117	1.71%	4	443	0.90%
11	0	360	0.00%	0	576	0.00%
12	1	402	0.25%	2	546	0.37%
13	0	365	0.00%	1	1001	0.10%
14	3	386	0.78%	2	407	0.49%
15	5	329	1.52%	4	477	0.84%
16	6	301	1.99%	6	343	1.75%
17	0	290	0.00%	1	375	0.27%
18	1	397	0.25%	5	593	0.84%
19	1	358	0.28%	0	741	0.00%
20	1	333	0.30%	4	502	0.80%
21	0	363	0.00%	2	616	0.32%
22	0	344	0.00%	0	500	0.00%

A univariate analysis of covariance (ANCOVA) was conducted. The treatment conditions (comparison versus experimental) were used as an independent variable and the students' percentage of rule-based errors on the second draft of the problem/solution argument as dependent variable. The students' percentage of rule-based errors on the causal argument (T_1) was used as covariate. Results showed that there was a statistically significant difference between the comparison and experimental groups in favour of the experimental group in terms of the percentage of rule-based language errors at alpha level of 0.1: $F (1, 37) = 2.16$, $p = 0.15$ ($\eta_p^2 = 0.05$). The mean score and the standard deviation (SD) of the comparison group and the experimental group were 0.82, SD=0.86 and 0.53, SD= 0.64 respectively.

Similarly, the percentage of non rule-based errors which the two groups made on the second draft of the problem/solution argument was also measured according to the above formula. The comparison group had the following proportion of errors (see Table 34 below):

Table 34. Percentage of Non Rule-Based Language Errors of the Comparison Group (Problem/solution argument)

Student	Prob. Solution 1			Prob. Solution 2		
	# errors	# words	% error	# errors	# words	% error
1	13	369	3.52%	15	858	1.75%
2	14	489	2.86%	5	602	0.83%
3	14	435	3.22%	14	595	2.35%
4	7	194	3.61%	7	406	1.72%
5	9	503	1.79%	12	693	1.73%
6	0	70	0.00%	7	499	1.40%
7	7	263	2.66%	9	464	1.94%
8	4	296	1.35%	7	338	2.07%
9	10	297	3.37%	17	615	2.76%
10	12	398	3.02%	14	717	1.95%
11	12	334	3.59%	13	362	3.59
12	5	512	0.98%	5	492	1.02%
13	16	454	3.52%	13	468	2.78%
14	10	354	2.82%	19	633	3.00%
15	2	260	0.77%	8	674	1.19%
16	7	279	2.51%	21	667	3.15%
17	15	554	2.71%	13	649	2.00%
18	7	407	1.72%	13	434	3.00%

On the other hand, results for the experimental group are shown in Table 35 below:

Table 35. Percentage of Non Rule-Based Language Errors of the Experimental Group (Problem/solution argument)

Student	Prob. Solution 1			Prob. Solution 2		
	# errors	# words	% error	# errors	# words	% error
1	7	273	2.56%	6	399	1.50%
2	19	367	5.18%	5	433	1.15%
3	10	345	2.90%	3	592	0.51%
4	8	465	1.72%	6	581	1.03%
5	2	278	0.72%	3	718	0.42%
6	15	467	3.21%	12	492	2.44%
7	9	467	1.93%	10	643	1.56%
8	15	274	5.47%	12	666	1.80%
9	12	303	3.96%	9	471	1.91%
10	3	117	2.56%	7	443	1.58%
11	4	360	1.11%	5	575	0.87%
12	13	402	3.23%	8	546	1.47%
13	9	365	2.47%	12	1001	1.20%
14	20	386	5.18%	11	407	2.70%
15	7	329	2.13%	11	477	2.31%
16	10	301	3.32%	10	343	2.92%
17	17	290	5.86%	16	379	4.22%
18	19	397	4.79%	12	593	2.02%
19	4	358	1.12%	9	741	1.21%
20	7	333	2.10%	9	502	1.79%
21	9	363	2.48%	9	616	1.46%
22	20	344	5.81%	29	500	5.80%

The above results reveal no statistically significant difference between the comparison and experimental groups in terms of the non rule-based errors made on the problem/solution argument: $F (1, 37) = 0.69$, $p = 0.41$, $(\eta_p^2 = 0.01)$. The mean score and the standard deviation of the comparison group and the experimental group were 2.08, SD =0.72 and 1.90, SD =1.21 respectively.

The above results reveal that students who engaged in peer-editing were able to improve the content and the organization of ideas in their revised drafts. They also reduced the number of rule-based errors under study, but not the non rule-based errors.

To answer question 9, (Does peer-editing or self-editing enable the students to improve the overall quality of new essays written at the end of the term and that have not received any teacher or peer feedback?), a univariate analysis of covariance (ANCOVA) was conducted. The treatment conditions (comparison versus experimental) were used as an independent variable, the students results on the final exam essay (post-test T_2) as dependent variable, and the students' results on the first draft of causal argument (pre-test T_1) as covariate. There was a statistically significant difference between the comparison and experimental group in favour of the experimental group at $p < 0.01$ alpha level: $F (1, 37) = 6.96$, $p = 0.01$, $(\eta_p^2 = 0.15)$. The mean score and the standard deviation of the comparison group and the experimental group were 64.27, SD =13.19 and 71.95, SD = 8.55 respectively.

To answer question 10, (Is peer-editing or self-editing more successful in reducing the percentage of rule-based errors made in new essays written at the end of the term), a univariate analysis of covariance (ANCOVA) was conducted. The treatment conditions (comparison versus experimental) were used as an independent variable, the students' percentages of rule-based errors on the post-test (T_2) as dependent variable, and the students' percentages of rule-based errors on the pre-test (T_1) as covariate. The percentage of rule-based language errors that the students of the comparison group made on the post-test (T_2) were as follows (see Table 36 below):

Table 36. Percentage of Rule-Based Language Errors of the Comparison Group (T2)

Student	T1			T2		
	# errors	# words	% error	# errors	# words	% error
1	0	476	0.00%	2	902	0.22%
2	1	380	0.26%	0	564	0.00%
3	2	452	0.44%	2	523	0.38%
4	3	389	0.77%	2	421	0.48%
5	1	541	0.18%	1	654	0.15%
6	2	288	0.69%	5	414	1.21%
7	0	361	0.00%	0	375	0.00%
8	2	307	0.65%	2	397	0.50%
9	4	361	1.11%	2	375	0.53%
10	4	539	0.74%	10	733	1.36%
11	1	295	0.34%	2	363	0.55%
12	1	552	0.18%	1	677	0.15%
13	0	376	0.00%	0	494	0.00%
14	3	525	0.57%	3	534	0.56%
15	1	267	0.37%	0	499	0.00%
16	8	392	2.04%	5	620	0.81%
17	1	422	0.24%	1	618	0.16%
18	1	188	0.53%	1	272	0.37%

The percentage of rule-based language errors that the students of the experimental group made on the post-test (T_2) were as follows (see Table 37 below):

Table 37. Percentage of Rule-Based Language Errors of the Experimental Group (T2)

Student	T1			T2		
	# errors	# words	% error	# errors	# words	% error
1	3	122	2.46%	6	618	0.97%
2	4	278	1.44%	1	286	0.35%
3	1	332	0.30%	6	833	0.72%
4	3	340	0.88%	3	538	0.56%
5	2	368	0.54%	2	596	0.34%
6	6	300	2.00%	5	439	1.14%
7	1	458	0.22%	0	580	0.00%
8	3	245	1.22%	9	654	1.38%
9	5	298	1.68%	10	458	2.18%
10	1	271	0.37%	1	424	0.24%
11	4	395	1.01%	5	523	0.96%
12	0	353	0.00%	2	624	0.32%
13	1	328	0.30%	0	718	0.00%
14	3	322	0.93%	2	454	0.44%
15	2	400	0.50%	1	458	0.22%
16	4	281	1.42%	6	396	1.52%
17	4	356	1.12%	1	397	0.25%
18	0	286	0.00%	0	412	0.00%
19	1	252	0.40%	0	807	0.00%
20	0	267	0.00%	1	415	0.24%
21	2	637	0.31%	2	694	0.29%
22	0	297	0.00%	4	372	1.08%

There was no statistically significant difference between the comparison and experimental groups with respect to reducing the percentage of rule-based errors in the post-test (T_2). The results were F (1, 37) = 0.33, p=0.56 (η_p^2 = 0.00); the mean score and the standard deviation (0.31, SD=0.21) for the comparison group, and (0.41, SD=0.36) for the experimental group respectively.

To answer question 11, (Is peer-editing or self-editing more successful in reducing the percentage of non rule-based errors in new essays written at the end of the semester), a univariate analysis of covariance (ANCOVA) was also conducted. The treatment conditions (comparison versus experimental) were used as an independent variable, the students' percentages of non rule-based errors on the post-test (T_2) as dependent variable, and the students' percentages of non rule-based errors on the pre-test (T_1) as covariate. The percentage of non rule-based language errors that the students of the comparison group made on the post-test (T_2) were as follows (see Table 38 below):

Table 38. Percentage of Non Rule-Based Language Errors of the Comparison Group (T2)

Student	T1			T2		
	# errors	# words	% error	# errors	# words	% error
1	4	476	0.84%	7	902	0.78%
2	5	380	1.32%	3	564	0.53%
3	8	452	1.77%	6	523	1.15%
4	7	389	1.80%	9	421	2.14%
5	6	541	1.11%	8	654	1.22%
6	4	288	1.39%	3	414	0.72%
7	3	361	0.83%	2	375	0.53%
8	4	307	1.30%	5	397	1.26%
9	5	361	1.39%	8	375	2.13%
10	10	539	1.86%	14	733	1.91%
11	7	295	2.37%	10	363	2.75%
12	7	552	1.27%	6	677	0.89%
13	5	376	1.33%	10	494	2.02%
14	19	525	3.62%	19	534	3.56%
15	9	267	3.37%	9	499	1.80%
16	4	392	1.02%	13	620	2.10%
17	4	422	0.95%	7	618	1.13%
18	0	188	0.00%	1	272	0.37%

The percentage of non rule-based language errors that the students of the experimental group made on the post-test (T2) were as follows (see Table 39 below):

Table 39. Percentage of Non Rule-Based Language Errors of the Experimental Group (T2)

Student	# errors	# words	% error	# errors	# words	% error
		T1			T2	
1	5	122	4.10%	12	618	1.94%
2	8	278	2.88%	0	286	0.00%
3	7	332	2.11%	10	833	1.20%
4	2	340	0.59%	5	538	0.93%
5	2	368	0.54%	2	596	0.34%
6	11	300	3.67%	6	439	1.37%
7	6	458	1.31%	5	580	0.86%
8	7	245	2.86%	6	654	0.92%
9	8	298	2.68%	1	458	0.22%
10	5	271	1.85%	6	424	1.42%
11	7	395	1.77%	7	523	1.34%
12	7	353	1.98%	13	624	2.08%
13	5	328	1.52%	15	718	2.09%
14	7	322	2.17%	12	454	2.64%
15	9	400	2.25%	7	458	1.53%
16	9	281	3.20%	10	396	2.53%
17	8	356	2.25%	9	397	2.27%
18	8	286	2.80%	5	412	1.21%
19	3	252	1.19%	5	807	0.62%
20	4	267	1.50%	2	415	0.48%
21	1	637	0.16%	2	694	0.29%
22	2	297	0.67%	7	372	1.88%

There was no statistically significant difference between the comparison and experimental groups with respect to reducing the percentage of non rule-based errors in the post-test (T_2). The results were $F (1, 37) = 0.06$, $p = 0.80$ ($\eta_p^2 = 0.00$); the mean score and the standard deviation 1.54, $SD = 0.78$ for the comparison group, and 1.67, $SD = 0.84$ for the experimental group respectively. Hence, the treatment produced no effects with respect to reducing rule-based and non rule-based errors in the students' new essays written at the end of the semester.

The above results reveal that students who engaged in peer-editing were able to improve the content and the organization of ideas in their new essays but could not reduce the number of rule-based and non rule-based language errors in these essays (see *5.3*, pp.138-142 for analysis and discussion of these results).

Finally, 11 students of the experimental group and ten of the comparison group agreed to be interviewed and recorded in my office. Responses to the interviews were transcribed verbatim.

- *Interview Results of the Experimental Group*

Eleven students of the experimental group responded to interview questions (see Appendix J). Responses of the experimental group were as follows: All students agreed that the process and rationale of peer-editing was well explained in class (question 1). However, responses varied to question 2. Seven students considered peer-editing applicable at the university, two thought it was applicable but very time-consuming, and another two students thought it was not applicable at the university because it was not taken seriously. One of these students said,

> Maybe some are shy to express bad things in order not to hurt others, especially in friendship. If the peer-editor is a friend of you, he tries to tell you but may be some people, I think, they are shy to tell you that there is a problem and not to make you sad. Probably it applies everywhere, but here in our culture it is more because of our beliefs like true friendship and things like that. We don't like to hurt others. Relationships are so important in our culture.

In answer to question 3, the majority considered peer-editing a successful revision method, but two of them seemed to disagree about who benefits more from peer-editing. One student considered the writer benefits more than the editor while another student thought the contrary. However, two others thought the success of peer-editing depends on the students' mood and ability. Another considered it only partially successful ('50-50').

With respect to the matter of trust (question 4), eight students said trust depended on the kind of peer a writer has. For example, one of them said,

> It depends on who the peer is. I accept the peer-editing comments but sometimes, I feel that it's not right so I ignore it. If I'm convinced I apply them and most of the time I am convinced.

Another student responded to the question of trust by saying, 'It depends on who is correcting it. If it is someone smart, then yes. I can know if he is smart from his grades and depending on the comments he gives me.' On the other hand, two students stated that they do not trust their peers. One of them said, 'I do not trust a lot the editor…. They are not honest and they do not know how to make it good'. Only one student affirmed that he did trust his peers.

However, when asked whether they felt their comments had helped their colleagues improve their essays (question 5), six students answered positively. One of them felt her comments improved her colleague's essay because 'I comment not for the sake of commenting. I talk to him while he is peer-editing and we tell each other what our mistakes are, so that next time he understand what I wrote'. Two said they helped their colleagues 'sometimes'; one of them explained by saying,

> 'In some cases you can't help others because we only had one period for peer-editing; it was too short. Usually we feel a rush at the end where we should put the other kinds of mistakes: wrong words or subject/verb agreement. But sometimes I felt it kind of useless because of the handwriting of the student and the organization of the paper. Sometimes I need more time to understand the essay, and it takes more than one period to do it'.

Other students were 'not sure' they have been helpful, and one said she had not been able to help her colleague. She said, 'I don't know how to pick up the mistakes one by one. To point them out specifically, I cannot do it. What assures me if he has a claim? I am not confident'.

In terms of peer-editing difficulty (question 6), most students found it hard to find and/or correct logical fallacies as well as language errors, especially awkward sentence structure. In the case of logical fallacies, one student said, 'I should search for them well; it needs time. I don't pay attention to logical fallacy. It is something new to us'. As for correcting language errors, a student complained that

> the correcting of the awkward sentences is the most difficult because they are vague and I don't understand them…Maybe if they were my ideas I would be

able to correct them but they are not mine. I think it is embarrassing and I will avoid it.

Another said, 'The last part [language] was a bit hard because you have to go sentence by sentence, paragraph by paragraph, to look where are the awkward sentences and think how you can replace them and it takes time'. Moreover, one student said, 'I can tell the sentence is awkward but I cannot correct the mistake'. Other students had difficulty filling in the 'change' section on the second page of the editing form because they could not think of an alternative idea or sentence to replace the original one.

When asked about their preference regarding keeping the same peer or changing him/her (question 7), eight students preferred to change the peer so they could get feedback from different perspectives and work with students of different abilities to increase their chances of improving their essays. Two students preferred to keep the same peer while one thought there are advantages in both keeping and changing the peer. Moreover, 9 students preferred to pair off with a peer who has good writing ability than work with a friend in editing an essay (question 8). In response to question 9 regarding motivating the students to take peer-editing seriously, the majority considered grading editing forms to be the best motivation, two students suggested giving more time as well as grading the form, and one student could not suggest any method to motivate the students to do peer-editing.

When asked for their suggestions regarding improving the editing form (question 10) some found the form clear and did not suggest ways to improve it. However, two students preferred to write free comments about the essay instead of having specific instructions like 'add', 'delete', 'keep', and 'change'. Others addressed the language section of the form. One student suggested requesting editors to point out and correct on the form spelling errors instead of sentence structure errors. Three students preferred editing more language errors than the assigned four. Only one student suggested doing the editing immediately on the essay instead of filling in the form in order to facilitate the task for the editor. On the other hand, when asked whether peer-editing or self-editing helps them improve their essay writing (question 11), only two students preferred self-editing, while the rest of the students said they would rather do peer-editing because as one student said, 'I could learn from my friend's mistake and avoid it'. Another student said, 'You make a mistake because you don't know it is a mistake, so you need a person to draw your attention to that and any type of mistakes, so

the peer-editing is better'. Finally, when asked whether or not I should continue using peer-editing in my writing classes (question 12), the majority recommended that I continue teaching my students to peer-edit. One student said,

> I advise you to continue. It has helped me a lot, both if I notice where my mistakes are and help me not to repeat them again. For the long run, I will learn for the future. I remember what I have to put, everything on the peer-editing form, and I take it into consideration.

However, two students were not enthusiastic about peer-editing. One of them said 'I think it's good but if there is something better, why not try it? You should try self-editing this time… then you can compare and find which is better', while another stated that peer-editing is good but 'I trust the teacher more. Peer-editors sometimes point out mistakes and they [the peers] would not correct them'.

- *Results of Analysed Editing Forms and Peer-edited Essays (the Experimental Group)*

Ten randomly chosen essays written by the experimental group were analysed. Five essays were position arguments (Essay Two), while the other five were problem/ solution arguments (Essay Three). Each analysed essay included the first draft, the peer-editing form, and the second draft revised in response to the peer's feedback. Essay grades varied as did the editing ability with second draft essays receiving grades ranging between 40% and 85% and peer-editing forms ranging from good, to average, to poor.

Analysis of the peer-editing forms revealed that the editors had little difficulty filling in the first page of the editing form (particularly of the problem /solution essay), had some trouble with the 'change' section of the second page, and faced the most difficulty in noting language errors on the third page. Page one entailed determining whether the essay components were there or not and whether there were any problems with organisation or logic. The main difficulty for the students was in determining the appropriateness of the claim and the existence of a counter argument and refutation as well as logical fallacies. For example, in some cases, the claim was correct, but the editor thought it needed revision; in other cases it was not adequate, but the editor thought it was. Also, refutations were often irrelevant as they did not address the counter arguments but discussed different issues;

however, the editors were rarely able to realise this fact. Also, the students sometimes indicated the existence of logical fallacies but did not mention their line numbers in the essay or their types.

With respect to page two of the editing form, the problems in the 'add' section involved missing some of the components that needed to be added. In the 'change' section, editors often asked writers to change a certain idea, example, or statement without explaining why it needed to be changed and without offering a suggestion as to how to change it. Similarly, the students did not indicate in the 'keep' section all the ideas and paragraphs that should be kept. Most importantly, the editors seemed to have difficulty giving specific comments on the second page of the editing form when the topic they had written on differed from that chosen by the writer. In this case, filling in the first page of the editing form was easy, but they had difficulty writing feedback on the second page. In such cases, editors in general did not write specific comments pertaining to the subject matter of the writers' essays, but rather commented on essay components. They tended to ask writers to add a claim, a topic sentence, and/or supporting details, instead of suggesting a suitable claim, a topic sentence, or supporting details that related to the discussed topic. For example, if the essay discussed the disadvantages of smoking and one paragraph lacked a topic sentence, the peer-editor would merely state the need for a topic sentence, which is a general comment that may not help the writer, instead of suggesting one disadvantage of smoking to serve as a topic sentence. Hence, the feedback merely reiterated the missing components of the argumentative essay which they had marked on the checklist part of the editing form, instead of tailor-making the comments to address the essay content. In one case the editor did not even realise that his colleague's essay was off topic as he himself had written on a different topic.

However, the hardest part of all seemed to be editing the language. Out of the ten essays analysed, only two students attempted to correct the four types of error. In general, the students misidentified some errors and considered them S/V Agr when they were actually number agreement errors (for example, 'coats' instead of 'coat') or labelled them W.W. when they were errors of tense or word form. Sentence structure errors were the most difficult. Of the above-mentioned two students, only one was able to spot and correct a couple of sentence structure errors, while missing the rest. The other student corrected one sentence, but it stayed awkward. However, most students were able to correct S/V Agr. and Pr. Agr. errors. Other difficulties in editing were due to the first draft. For example, one essay out of the ten

turned out to include an incomplete first draft, which made it difficult for the editor to edit it. Another was totally off topic; however, the editor did not spot the problem and so the second draft ended up also being off topic.

On the other hand, analysis of second drafts revealed that irrespective of whether the essay was a position or problem solution argument, the editors tended to respond to most of their peer's feedback adding ideas, deleting others, or incorporating changes in content, organisation, and language, as indicated by their peers. In few cases, writers responded to wrong feedback which resulted in poor essay revision. However, sometimes the writers did not abide by their editor's suggestions either because they were not specific or clear enough as in the case of the comments written in the 'change' section, so they did not know how to respond to them, or perhaps because the students were not convinced of the change requested. At other times, the requested changes were wrong as stated earlier. Also, in some cases, the suggested changes required the writer to do more research and seek more information as in the case of the problem/solution argument, where students sometimes suggested adding a method of implementing the best solution. As a result, the writers tended to ignore such requests and kept their original sentences. This observation coincides with Conrad and Goldstein's (1999) finding that often the type of comment determines whether or not a writer addresses it.

- *Interview Results of the Comparison Group*

Ten students of the comparison group also responded to interview questions (see Appendix K). Most students felt that the process and rationale of editing were well-explained in class (question 1). One student said 'It made me too much improve from first to second draft by knowing what I should add and what I should delete'. Two students said they were a bit confused about the procedure when they attempted to self-edit their first essay; however, one felt more confident when he proceeded to self-edit the second essay, while the other improved his self-editing in the third essay. A fourth student said she did not believe in self-editing at first, but when she attempted to write the second draft of her first essay, she felt that the self-editing form helped her a great deal. Moreover, most students also found self-editing a successful revision method (question 2) that helped them improve their second drafts (question 3). When asked whether or not they consulted their comments on the editing form, they answered positively. However, one student said it only helped her in the first and second

essays, but her third essay was off topic, and she did not notice, so self-editing did not help her in that case. Another said her self-editing skills improved in her second and third essays, but not the first because she could not self-edit her language errors. On the other hand, two students said that self-editing had not helped them improve their second drafts, except in correcting some language errors. When asked why, one student said, 'I cannot detect 100% what's correct and what's incorrect because it's me who wrote it'. Both students stated that when self-editing, they mostly focused on the language errors they had spotted and tried to correct them.

In response to question 4, most students said they had difficulty in editing language errors and detecting logical fallacies. Only two students found it hard to self-edit the second page. One of them found the 'keep' section hard as he 'can't say keep everything', while the other found the 'add' and 'delete' sections difficult. All but two students preferred self-editing over peer-editing (question 5). One student said, 'When I edit my paper, I do it better than anyone else'. Another two said the peers may not understand their ideas but the writers themselves know what they had written so they can fill in the form quickly. Three others felt that self-editing is better because fifty minutes are not enough for a peer to read and comment on a writer's essay. Two students felt peer-editing can be helpful only if the peer-editor had better language ability that would enable him/her to spot language errors. Another student stated that 'peers may help writers with organisation of ideas, but it is the writer who knows what he wants to say'. He suggested using both self-editing and peer-editing in order to 'gain a general idea about what needs to be changed from different perspectives'. One of the two students who preferred peer-editing over self-editing felt that 'a peer may spot them [errors] even if he's the same level of competence'.

On the other hand, most students suggested giving more weighting factor to the graded editing form in order to motivate the students to take editing seriously (question 6). Rating the form on a scale of three did not provide much motivation for the students to put hard effort into completing the form. They did not feel the weighting factor was high enough although the editing forms actually received 5% of the course grade. One student suggested adding a bonus grade to the essay of the student who did good editing. Two others suggested pointing out to the students how their first drafts had been improved as a result of self-editing. In response to question 7, most students said the editing form was clear and did not need any improvement. Only three students gave suggestions to improve it. One was to remove the

'keep' section and ask the students to indicate which paragraph they liked best in an essay. Another suggested removing the language page, while a third student suggested removing the second page ('add', 'delete', 'keep', 'change') as well as the third page (language errors), except for the sentence structure errors since he considered the students can spot them. He felt the editing form was too long to complete in 50 minutes.

Finally, in response to question 8, the majority of the students recommended that I continue teaching self-editing in the future rather than try peer-editing. One of them said, 'Self-editing is better than peer-editing. Who is the peer to tell me what to do? Peers don't care.'

- *Results of Analysed Editing Forms and Peer-edited Essays (the Comparison Group)*

Ten randomly chosen essays written by the comparison group were analysed. Five essays were position arguments (Essay Two), while the other five were problem/ solution arguments (Essay Three). Each analysed essay included the first draft, the self-editing form, and the second draft revised in response to self-editing. Essay grades varied as did the editing ability with second draft essays receiving grades ranging between 40% and 82% and self-editing forms ranging from good, to average to poor. Analysis of the self-editing forms revealed that the students had little difficulty filling in the checklist (page 1), but seldom did well on the 'add', 'delete', 'keep', 'change' sections (page 2). They merely wrote the missing essay components that should be added. Hence, their responses were merely a repetition of what they had stated on the checklist. The students also were rarely able to spot their language errors, especially sentence structure errors. In the position argument, one student corrected an awkward sentence while another rewrote an already acceptable sentence which had a pronoun agreement mistake, but which the student did not notice. Moreover, only three of many W.W. errors were corrected in the essays. In the problem/solution essay, a few spotted awkward sentence structures but provided equally faulty corrections of them. Only one student corrected an awkward sentence, while another improved an acceptable sentence. Also, only one student spotted and corrected S/V Agr. errors.

Analysis of the second drafts revealed that the students generally supplied the parts that were missing from their essays. For example, in both essay types, the students had added a counter argument and/or a refutation, a conclusion, cited sources to back up their arguments,

and added a list of references. In some cases, the students had also added supporting details. However, overall, they were not able to spot redundant or irrelevant ideas and had difficulty spotting logical fallacies, except for overgeneralisations. Moreover, in the problem/solution essay, the students were unable to suggest a method to implement the best solution they had suggested in order to solve the problem they were discussing.

4.3.8 Reliability

Certain factors enhanced the reliability of the results. To start with, the same instructor taught both the comparison and experimental groups and used the same instruments to evaluate the students' editing and writing performance. Moreover, all the essays evaluated were authentic. Also, inter-rater reliability of essay grading was demonstrated by asking an ESL teacher to grade ten essays chosen randomly from each of Essays Two, and Three. The students' names were replaced with codes to ensure student confidentiality. The results of our essay grades were compared. Inter-rater reliability was very high (r = 0.82 , p = 0.007). The same procedure was used to establish inter-rater reliability on the graded peer-editing forms. Inter-rater reliability was 0.77 where p<0.01.

4.3.9 Validity

Study Three generally meets the internal validity requirements of quantitative research in terms of research design, sampling, and data collection. In terms of research design, De Vaus (2001) considers that 'The more the structure of a study eliminates these alternative interpretations, the stronger the internal validity of the study' (p.28). Hence, to increase validity of the research design, the quasi-experiment involved a pre-test to measure the writing performance of the comparison and experimental groups before the intervention (peer feedback) and a post-test to measure their performance after the intervention. The design avoided alternative explanations of the results of the experiment by checking for the comparison and experimental groups' equivalence in writing ability - determined by the students' performance on the diagnostic essay - and in educational background using the students' responses on a structured questionnaire. The comparison of the two groups' writing ability on the diagnostic essay had revealed that they were not equivalent as stated earlier (see *4.3.4.*). Accordingly, the first draft of Essay One - written after instruction in argumentative essays and before receiving peer feedback - was used as a covariate instead of the diagnostic

essay to ensure that both groups have had similar training in writing since a comparison of the two groups' performance on the first draft of the causal argument revealed that they had similar writing ability. Also, the design displays ecological validity as it was implemented in a natural educational setting.

Moreover, the fact that the students involved attended different classes of the same course contributes to the validity of the research results. The students in the experimental group changed their peers for every essay they wrote, which increased the chance that each student may have been paired off with a competent or a weak editor.

On the other hand, the piloting of questionnaires (see *3.7.1*) and editing forms (see *3.7.2*) helped increase their efficacy and achieve face validity (Bell, 1987).

Finally, according to Cohen, Manion, and Morrison (2000), triangulation promotes the validity of results. The use of triangulated methods in Study Three to assess the students' ability to revise and improve the quality of their essays has probably increased the validity of this study's results. Thus, similar data (from the same sample using the same essay and editing rubrics) were obtained at different time intervals (week 8 for position argument and week 10 for problem/ solution argument), using different methods: 1. analysis of the students' overall revised position argument and problem/ solution argument; 2. analysis of peer and self-editing forms of both essays to determine the students' ability to write specific and relevant comments, 3. the students' ability to correct specific language errors in the above two essays; and 4. the students' interview responses. These triangulated methods have revealed similar student strengths and weaknesses with respect to peer-editing, essay revision, and the students' improved writing ability in new essays for the experimental group. Likewise, the results of tests carried out to answer questions 6, 7, 8, 9, 10, and 11 corroborate the findings of the qualitative analyses with respect to the experimental group's acquired ability to peer-edit and self-edit essays and the difficulty they face correcting language errors.

4.3.10 Limitations of Study Three

Despite the researcher's attempt to increase the reliability of her findings by comparing her essay and editing grades against those of another rater and gaining high inter-

rater reliability (see 4.3.8), the results of Study Three may not be generalised for several reasons. First, the sample was not representative of the wider population and second, the researcher was the only person to mark unanonymous student essays and editing forms and the sole person to classify the language errors found in the student essays. This minimises the design's external validity. Still, should repetition of this study yield similar findings with other ESL university student groups of the same level then the results may be generalised to these ESL students.

Also, as in Study Two, questionnaire responses regarding the students' past learning experiences may provide only what the students consider to be the methods their teachers had followed in class, not the methods that the teachers had actually used. The students may have forgotten some of the ways they were taught to write in English and confuse these methods with those of learning to write in Arabic or French, for example.

Furthermore, there may be characteristics/factors other than the intervention that may have lead to the reported change in the experimental group's writing performance. For example, the students' different personalities and learning styles could not be controlled by the experiment. De Vaus (2001) states that this should not pose a problem '*if both the experimental and control groups are equally exposed to these other influences*' (p. 58) [italics in original]. However, if one of the groups is exposed to external factors more than the other, this will influence the results of the experiment. One example is the possibility that some students may have sought additional help with their essays outside the classroom. Although all essays were written in class, the students may have discussed essay content, organisation, and /or language with colleagues outside class and made some changes to their essays accordingly. Unfortunately, in a quasi-experiment such as this one, it is difficult to ascertain whether or not one of the groups may have been more influenced than the other by external factors occurring between revised essay drafts or between T_1 (first draft of the causal argument) and T_2 (the final exam essay).

A further limitation of this study that also applies to the other two studies is that the instructor is also the researcher, which may influence the analysis of data and affect the neutrality of the results. Moreover, some students may have been absent for the training in peer-editing and/or for grammar instruction, which could also influence the results of this quasi-experiment.

4.3.11 Ethical Considerations

The study addressed some ethical concerns. I sought the students' consent to keep their original essays or copies of them with me in order to carry out research on them at the end of the semester. Another ethical concern is that the questionnaire administered to the students was not anonymous and this might have influenced student responses (Cohen, Manion, and Morrison, 2000; Busher, 2002). This deprived the students of their right to anonymity; however, since the students were not required to reveal sensitive information, there may have been little cause for them to hide or distort information. Moreover, to make up for loss of anonymity, the students were promised confidentiality of results (see Fogelman, 2002).

Overall, the research design, sampling, methods of data collection and the instruments used indicate that Study Three may be considered valid and reliable within the constraints of classroom-based research. It also follows some rules of ethical research despite some acknowledged limitations.

To conclude, Chapter Four has reported the results of the three studies carried out in this action research:

Study One

- There was no significant correlation between peer-editing and the quality of revised essays.
- The peer-editing experience seemed to significantly improve the quality of the end-of-term essay (the non peer-edited post-test).

Study Two

- The effect of peer-editing might be determined by the students' previous culture of learning.
- Some students improved their peer-editing ability.

Study Three

- Peer-editing improved content and organization of revised and new essays more than self-editing.

- Peer-editing reduced rule-based errors in revised drafts but not in new essays.
- Peer-editing did not reduce non rule-based errors in either revised drafts or new essays.

Thus, Study One and Study Three revealed that peer-editing leads the students to internalise good writing skills, which allows them to write new (non peer-edited), better quality essays at the end of the term. However, one point worth noting is the contradiction in the findings of the above studies with respect to the effects of peer-editing on revised essays. In Study One, there was no significant correlation between the students' performance on revised essays and the feedback they received on it, suggesting that student writers did not benefit from their editors' feedback (see *4.1.3*). In Study Two, however, some students showed improvement in their peer-editing skills (see *4.2.6*) and in Study Three, triangulated data collection methods revealed that the students who engaged in peer-editing had significantly improved their writing skills in revised and new essays. This suggests that since the students registered in English 3 have more or less similar writing ability, the students in Study One and Study Two may not have been well-trained in peer-editing as the students in Study Three (see 5.3 for a possible interpretation of these results).

In Chapter five, I will discuss and analyse the findings of each of these three studies.

CHAPTER 5. ANALYSIS, SYNTHESIS AND DISCUSSION

5.1 Analysis of Study One Results

In Study One (question1), the students did not benefit from their peer's feedback in improving their revised drafts; i.e. there was no significant correlation between good feedback and good essay revision. This may have been due to several reasons related to 1) the student writers, 2) the editors, and 3) the editing task itself.

To start with, student writers could be responsible for unsuccessful essay revision. From a cognitive perspective, whether student writers learn good writing skills or not depends on their attention to feedback, cognitive ability to process it, learning strategies, and limited linguistic ability to revise their essays. SLA research has repeatedly shown that attention to input is necessary for learning to occur (Anderson, 1983, 1985; McLaughlin, 1987, 1990, McLaughlin et.al., 1983; Van Lier, 1991, Van Patten, 1996, Schmidt, 2001). Schmidt (2001) argues that 'retrieval is an obligatory consequence of attention at the time of retrieval' (p.9), which means that attention is also required to get the language information stored in memory. Thus, if the students pay little attention to feedback, they will only encode part of it, which would result in incomplete revision. Hence, poor attention may affect both encoding and retrieval, thus resulting in production errors.

Another factor that may explain unsuccessful essay revision is that student writers may not have the mental ability to process the feedback they are given because it is above their developmental level. Accordingly, they will not be able to apply it to their writing.

Alternatively, insufficient practice of learning strategies may have left the students incapable of applying them when revising their essays since they had not had the chance to internalize these skills and move them from the declarative to the procedural stage of skill acquisition (see *2.3.1*).

Another possible explanation could be that the writer may have been unable to express the changes he/she would like to make in a text due to limited language ability, resulting in poor output. Hence, the student 'may know what revision strategies are available to improve

the text' but may 'lack ... ways to make meaning' due to insufficient level of 'linguistic maturity' with which to express the required changes (Sengupta, 1998, p.128).

From a sociocultural perspective, Activity Theory states that 'the motive of the individual … determines how actions will be constructed, as well as their functional significance' (Donato, 1994, p.37). Thus, the students interpret tasks the way they understand them. Similarly, Lantolf (2000) considers that 'as agents of their own learning activity, the students alter rigidly constrained classroom tasks' (p.42). They bring 'their own goals, actions, cultural background, and beliefs (i.e. their agency) into tasks and thus transform them' (Lantof, 2000; p. 44). This means that the same task may yield different results depending on how the students perceive it and engage in it and on whether students choose to learn and improve or not, for 'wanting to learn is necessary for learning' (Van Patten, 2002). Likewise, Swain (2000) considers that 'what one intends to teach may only indirectly, if at all, be related to what is learned. Students set their own agendas' (p.112). Thus, no matter how good peer feedback is, unless the student writer decides to address it and respond to it, peer feedback will not have much impact on the student writer's revised essay.

The lack of competence of peer-editors could also lead to a failure of peer-editing to improve the students' revised drafts. Editors who lack competence may, for example, deliver assistance beyond the writers' ZPD. According to Vygotsky (1978), mediation should occur between a learner and a person who is "more capable" (p.86), so that this person can determine the learner's ZPD (see 2.2) and deliver assistance that is developmentally appropriate, 'graduate and contingent' (Aljaafreh and Lantolf, 1994). As stated earlier, the terms 'graduate' and 'contingent' indicate that peer feedback should be offered gradually and be tailor-made to learners' exhibited need. Thus, peer-editors should not help writers if they feel, through interacting with them, that they are not yet ready for that level of assistance since such assistance may frustrate writers. Likewise, editors must withdraw assistance when it is not needed in order not to encourage learner dependence (Tynjälä, 1999). Ohta's (2000) study concluded that 'the provision of developmentally appropriate assistance is … dependent upon … sensitivity to the partner's readiness for help, which is communicated through subtle interactional cues' (p. 53). Hence, in Study One, the fact that student writers did not benefit from their editors' comments may suggest that the editors may have delivered assistance beyond the writers' ZPD. Also, editors may not have been more competent than the student writers in terms of determining relevant ideas and proper organisation although Forman and

Cazden (1985 in Di Pardo and Freedman) state that students accomplish together what one of them cannot do alone, as if they have been assisted by a "more capable" peer (p.133). Also, feedback may be more helpful in improving organisation of ideas in an essay than content (see *4.1.e*).

Moreover, since most students were not used to peer-editing at school, they may have needed more training in the complex skills of giving feedback and more time in editing each essay. The application of the language learning strategies embedded in peer-editing is initially time-consuming, and they need considerable practice before they become automatised (Anderson, 1983, 1985; McLaughlin, 1987, 1990, McLaughlin et.al., 1983). Also, as mentioned earlier, editors need practice in assessing their colleagues' ZPD in order to tailor-make their feedback to the student writers' needs. Hence, the time-consuming nature of this task may have contributed to the above results.

To sum up, factors which might be responsible for unsuccessful peer-editing are 1) the writers' attentiveness, processing ability, learning strategies, linguistic abilities, and agency; 2) the editor's lack of expertise in providing effective assistance within the learners' ZPD; and 3) the editing task itself.

With respect to the second question of Study One (Does the engagement in trained peer-editing create student awareness of good writing and hence improve the students' ability to write new essays?), results indicated that the students showed a significant improvement in writing new essays that did not receive peer feedback. This may be because the students had been trained in peer-editing and had engaged in giving and receiving peer feedback throughout a semester, having served as editors and writers. As editors, having repeatedly asked writers to include all the components of the argumentative essay in their drafts, the students seemed to have internalized these components and thus performed much better on their own final exam essay compared to their previous essays.

Cognitive theories of language acquisition support this explanation (Anderson 1983, 1985; McLaughlin 1987, 1990, McLaughlin et.al., 1983; Schmidt, 2001). As stated earlier, cognitive theories posit that learning a language requires attention to input. At first, a great deal of attention is required to learn new information as declarative knowledge and store it in the short-term memory, which has limited capacity. However, repeated exposure and

processing of this information through practice allows students to restructure it and transform it into procedural knowledge. Procedural knowledge is stored in the long-term memory, thus freeing some space in the short-term memory to allow new learning to occur. Once information is stored in the long-term memory, little attention is required to retrieve it. Attention is now focused on learning new information. Hence, the repeated attention to and critical reflection on argumentative writing skills during the semester may have allowed the students to store these skills in their long-term memory and access them easily at the end of the semester when writing the final exam essay.

The positive role peer-editing plays in promoting autonomous writing may be further explained from a sociocultural perspective. Swain's (2000) study discusses the collaborative dialogue between two students that allowed them to collectively provide alternative solutions to linguistic problems and build knowledge. She concludes that this dialogue 'may become a tool for their individual use of their second language' (2000, p. 104). Other studies that explain this improvement from a sociocultural perspective are those of de Guerrero and Villamil (1994, 2000), Donato (2000) and Ohta (2000) who consider that communication with peers develops an individual's ability to write better.

With respect to question 3 of Study One, the students felt that peer-editing empowered them to self-edit their essays. The students' questionnaire responses also indicated that the advantage of peer-editing lies in promoting self-editing skills (see *4.1.4*: Table 6, questions 10 and 11; Table 6, questions 4-6).

It seems clear that the results of Study One may be explained with reference to both metaphors currently debated in SLA, namely the acquisition metaphor (cognitive explanation of SLA) and the participation metaphor (sociocultural explanation). As Sfard (1998 in Donato, 2000) indicates, it is not wise to separate the two metaphors since acquisition of language occurs through participation in social activity. Donato (2000) considers, and I concur, that one should be aware of

> the danger of overlooking far-reaching implications about learning that derive
> from the adoption of one metaphor or another. For example, if one adopts the
> dominant metaphor of acquisition - the 'taking in' and possessing of
> knowledge- as indices of achievement, then failure to achieve may be

explained away by reference to an individual's low aptitude, lack of motivation, or inappropriate learning strategies. If one adopts the participation metaphor, alternate reasons for an individual's failure to achieve could be posited, such as the individual's marginalization from a community of practice, insufficient mediation from an expert, or scant access to a learning community (pp.40-41).

Thus, adopting both cognitive and sociocultural interpretations of the above findings is likely to yield a better understanding of the factors involved in developing the students' writing. Accordingly, findings of Study II and Study III will also be analysed with references to these two interpretations of SLA.

5.2 Analysis of Study Two Results

In Study Two, three paired sample t-tests comparing students' peer-editing scores on Essay One, Two, and Three (PE1–PE2; PE1–PE3; PE2–PE3) revealed that there was no statistically significant improvement in peer-editing from one essay to the next (see *4.2.6*). One explanation may be the students' culture of learning (research question 4). As indicated in the students' questionnaire responses, the students - prior to this study- had been exposed to a didactic approach to learning that depends heavily on teachers and textbooks to convey information and deliver instruction. The students in that system are rather passive learners. They do not contribute much to their learning process (see *4.2.5*: Table 9, questions 9; Table 10, question 10) and few of them had previous experience with peer-editing (see *4.2.5*: Table 11, question 2, item j). Thus, a sudden change in the method of teaching, namely the new role allotted to student editors, which conflicted with the students' learning expectations (see Shamim, 1996 above), may have brought about discomfort in critiquing other students' work as well as distrust in their peers' ability to revise essays. Accordingly, the students may have distanced themselves from their peers' feedback. Conceptions of learning 'affect how people approach learning' (Carnell, 2005, p. 274).

Analysis of the students' editing results revealed that ten of 24 had actually improved in peer-editing; four fluctuated, two maintained their level, while eight students regressed (see *4.2.6*) indicating individual learning differences. It is a well-known fact that students learn at different speeds according to their different conceptual abilities (Ellis, 1994; Stenhouse, 1979

in Hopkins, 1985), so the same teaching style may benefit one student but not the other. This may be what Di Pardo and Freedman (1988) meant when they said with reference to Vygotsky (1978, p.78) that 'two students may display a similar degree of completed mental development, but their "developmental dynamics" may be quite different, allowing one to go much further than the other when both are given equal help' (p. 129). Similarly, Al-Jaafreh and Lantolf's (1994) study suggests that different learners have different ZPDs, so some learners may benefit from implicit feedback while others may require explicit feedback or both. Furthermore, different students learn differently, 'language learning strategies are not and cannot be directly taught and implemented by learners with uniform success' (Donato 1994, p.456). Since peer-editing involves the application of learning strategies, this may explain why it is not carried out by all students with equal success.

On the contrary, the students' regression reported in Study Two is considered normal (see de Guerrero and Villamil, 2000; Ohta, 2000). De Guerrero and Villamil (2000) have encountered regression in their study of mutual scaffolding during peer interaction. A microgenetic analysis of peer interaction made them conclude that 'mediated peer interaction is not a smooth, linear process of development toward L2 norms, but an irregular and dynamic movement entailing the possibility of regression, creativity and progress' (p.65). Accordingly, Leki (2003) rightly states,

> we cannot view the environment in which these writers are learning writing and language as neutrally giving everyone open and free opportunities to become whatever they desire if only they set their minds to it. The contexts of writing both make possible and constrain linguistic development of all kinds, including writing (p. 3).

Student interviews (*4.2.7*) revealed student writers' distrust of their peers' ability to edit essays. If student writers do not trust their editors' comments on their essays, they will not address them in their revised drafts. This claimed lack of peer competence may be due to the fact that the students find peer-editing a complex and demanding task. If they themselves have difficulty engaging in it, they may not consider that other students could be more capable than them in applying it and hence choose to ignore their colleagues' feedback. Still, the students had generally acquired a favourable impression of peer-editing as most students (nine out of 15) expressed a preference for changing their peers during the semester in order

'to get feedback from different perspectives' and 'get new ideas'. Similarly, the majority of students preferred to be grouped according to language ability rather than friendship in order to maximize their benefit from peer-editing. Thus, their initial reluctance to peer-edit essays may have been due to their educational background. Their culture of learning, as stated earlier, had generally taught them to be passive learners and to consider the teacher as the main source of knowledge, which explains the difficulty they had in trusting their colleagues' comments as well as in trusting their own ability to peer-edit. The peer-editing difficulties they still faced at the end of the semester may be eased with more rigorous training and practice of peer-editing.

However, a noteworthy discrepancy exists between what the students had said in the interviews about the efficacy of peer-editing in developing their writing skills (*see 4.2.7 above*) and their actual performance on the peer-editing forms. There are two possible explanations for this. The students may have been eager to please me in the interviews by giving me a positive evaluation of peer-editing, or they may have really benefited from engaging in peer-editing but not from the peer feedback itself. I am inclined to consider the latter is more plausible for the following reasons. First, I had made it clear, during my interviews with the students that the best way they could help me in my research was by being honest about their reactions to peer-editing. This, however, does not preclude the fact that some students may still have been shy to tell me their true feelings about peer-editing. Second, the fact that the students had improved their writing skills on the final exam (post-test) of Study One reflects the truthfulness of the students' comments on peer-editing as being 'especially helpful for those who don't write well, to improve their writing'; 'it is the process that matters, not like in other courses where there is just an exam that sees what they [the students] have learnt'; and that peers help each other improve their writing as some students 'have a block with the teacher' (*see 4.2.7 above*).

5.3 Analysis of Study Three Results

The results of Study One and Study Three both reveal that the students who engaged in peer-editing internalised good writing skills which enabled them to write new better quality essays (see p. 127). Since analysis of the results of Study One has already discussed students' ability to improve the overall quality of their essays (q. 6, 9), analysis of Study Three results will focus more on students' ability to handle the language errors under study (q. 7, 8, 10, 11).

Study Three compared the effects of training in self-editing and peer-editing. There was a statistically significant difference between the comparison and experimental groups in favour of the experimental group on the second draft of the position argument (written after the treatment, in week eight) (see *4.3.7; results of quasi-experiment*). Since both groups received the same teacher training and practice in editing an argumentative essay in terms of content, organization, and language, the progress exhibited by the experimental group who engaged in peer-editing may be attributed to peer feedback. When the students interacted with each other, they exchanged knowledge about good argumentative writing skills, which may have lead them to improve their linguistic abilities and develop their learning, since 'social interaction actually produces new, elaborate, advanced psychological processes that are not available to the organism working in isolation' (Vygotsky,1978, p.61). A complementary explanation suggested by Piaget (1970 in DiPardo and Freedman, 1988, p.133) is that peer work provides learners with a source of conflict (see 2.6) which the students seek to resolve, thus promoting their cognitive development. While this may be true in some cases, I consider that conflict among peers regarding the relevance of content, or the accuracy of language structures is often a reason to ignore peer feedback due to the students' lack of trust in their peers' ability to provide guidance. However, similar conflict between writers and teachers often brings about changes that may lead to language development. Accordingly, the success of peer feedback in bringing about cognitive and linguistic development finds better support in a Vygotskian explanation of SLA.

Surprisingly, however, when the same test was carried out on the first and second drafts of the problem/solution essay (*see 4.3.7*, results of quasi-experiment), there was a statistically significant difference between the comparison and experimental group in favour of the experimental group on the *first* draft of that essay, but not on the *second* draft, written in week ten. One possible explanation of these results may be that student writers in the experimental group had gained confidence in their ability to write essays after the peer feedback they had received on the position essay, which made them write better first drafts of the problem/solution essay compared to those written by the comparison group. Unfortunately, the experimental group's newly-found confidence in their writing ability and their increased sense of text ownership (see Min, 2003) may have made them ignore their peers' feedback on the first draft of the problem/solution essay. As a result, the performance of the two groups on the second draft of the problem/solution essay was rather similar.

The nature of the problem/solution argument might also have played a role. In general, it is a more demanding essay to write because the students are asked to generate a viable solution to a given problem and provide a method for implementing that solution. In addition, this type of argument also entails refuting other solutions that are not applicable as well as justifying their refutation (see Appendix H). These additional components seldom appeared in the students' first draft since they at that stage were concerned with analyzing the problem at hand (its causes and /or its effects) after which they merely suggested a solution without discussing the method of implementing it, leaving that part for the second draft. A discussion of the causes of a problem is rather similar in content to the position argument (where the students explain the reasons for their position on a certain issue). Since the students in the experimental group had received peer-editing on the position argument, this may explain why they performed better than the students in the comparison group on the first draft of the problem/solution essay. The remaining components, namely refutations of other possible solutions and the method for implementing the best solution, usually appeared in the second draft of this essay, when the student writers had a chance to research the problem, having been given the topic. Editors may have found these components of the problem/solution argument quite difficult, so they could not suggest possible solutions or a method of implementing the best solution, which may explain why both experimental and comparison groups had similar results on the second draft.

With respect to language (question 7), the number of rule-based errors were significantly fewer in the second drafts of the experimental group of both the position argument and the problem/solution argument than those made by the comparison group. I would argue that this success in error reduction may be attributed to the peer interaction among the students of the experimental group who probably worked within each other's ZPD:

> Effective error correction and language learning depend crucially on mediation provided by other individuals, who in consort with the learner dialogically co-construct a zone of proximal development in which feedback as regulation becomes relevant and can therefore be appropriated by learners to modify their interlanguage systems

(Al-Jaafreh and Lantolf, 1994, p.480).

The above-mentioned results agree with those of Holunga (1994 reported in Swain, 2000). Holunga stressed the role collaborative dialogue plays in mediating second language learning. It allows learners to think about language as they are producing it and to construct new knowledge. The study, which investigated the effects of metacognitive strategy training on the oral accuracy of verb forms, involved three groups, one served as a control group, while the other two experimental groups were taught to spot language errors with the help of certain metacognitive strategies. However, only one of the two experimental groups was taught to verbalise the strategies as they used them. Results of the study revealed that verbalizing the language errors that the students spotted allowed them to 'become more aware of their problems, predict their linguistic needs, set goals for themselves, monitor their own language use, and evaluate their overall success' (p. 109). Hence, by giving opportunities for verbalization, student collaboration in editing language errors may have increased student awareness of these errors, thus reducing them.

The above results also agree with the findings of Muranoi (2000) whose study concluded that enhanced oral/written interaction (between teacher and student) coupled with formal instruction of the (rule-based) indefinite article (a/an) lead to improved performance in the use of articles immediately after instruction (short-term).

In contrast to the findings regarding rule-based errors, there was no significant decrease in non rule-based errors (WW; SS) in the revised drafts of the experimental and comparison groups (question 8), which agrees with the results of Ferris and Roberts (2001). One reason may be that non rule-based errors are more complex to control than rule-based ones, and in the case of S.S., the features students would need to notice are spread out in the sentence and, hence, less easily spotted. Accordingly, these language forms need more practice time in order to be acquired. Van Patten (2002) clearly states that learners do not process all the grammatical markers that are available in the input due to limited capacity of the working memory and the nature of the learners' developing linguistic system. They may even formulate wrong data from it (p. 241-242). This applies to editors as well as to writers, who may have had difficulty spotting or correcting these errors despite receiving formal instruction in them, so writers kept making these errors in their essays (see discussion of the results of question 11 below).

Overall quality of new essays was investigated in question 9 (see p. 111). There was a statistically significant difference in favour of the experimental group with respect to writing new essays that had not received teacher or peer feedback. The success of the experimental group in improving their essays' quality may be due to the fact that through engaging in peer-editing and negotiation of meaning, the students may have understood 'what to revise, how to revise, and why they need to do so' (Goldstein and Conrad, 1990, p. 457 in De Guerrero and Villamil, 1994, p. 492). This finding in Study Three agrees with the finding of question 2 in Study One and with that of Donato and MacCormick (1994) who examined students' performance-based portfolios, in which students documented and reflected upon their own development of spoken language. Donato and MacCormick (1994) concluded that 'The systematic act of documenting and thinking about performance is the catalyst and mediator for developing and sharpening one's strategies' (p. 462). Although Donato and MacCormick's (1994) study differed from mine (Study Three) in the method (self reflection in their study compared to peer-editing in mine) and the mediating tool used to develop learning strategies (portfolio versus editing form), both studies arrived at the same conclusion: the reflection on and critical analysis of essays may have allowed the students to apply language learning strategies according to need and to internalize these strategies with practice, thus leading them to become independent writers and good self-editors at the end of the semester. Hence, in Study Three, peer-editing helped the students more than self-editing in gaining language learning strategies because the students were involved in analyzing other students' essays, not just their own. Encountering and tackling a variety of ideas and essay problems may have rendered their experience richer and their strategies more developed.

Question 10 asked about the effect of peer-editing versus self-editing on rule-based errors in new essays. No significant difference was found between the performance of the experimental and comparison groups in reducing rule-based errors in new essays. Although the experimental group, unlike the comparison group, managed to significantly reduce rule-based errors in revised drafts, this linguistic gain did not seem to hold over time. Towards the end of the semester, students in the experimental group seemed to have forgotten their peers' and teacher's instruction regarding these forms. This result agrees with that of Ferris (2006). Ferris (2006) compared language errors that students had made in essay 4 to those in essay 1 and found that in essay 4, students were unable to reduce errors in articles (rule-based) and sentence structure (non rule-based) although these errors had been reduced in revised drafts. In fact, these errors increased in essay 4 compared to essay 1. On the other hand, Ferris also

found that the students were able to significantly reduce other language errors in essay 4, namely errors in verb form, while errors in word choice (non rule-based) were almost significantly reduced. Hence, in Ferris's study, the students were unable to retain in the long run instruction about some 'untreatable' errors, to use Ferris's terminology. Accordingly, Ferris concluded that 'students' short-term ability to edit certain types of errors did not always translate to long-term improvement' (p. 95). Likewise, the results of question 10 are in line with Van Patten's (2002) finding that 'The research on the effects of form instruction have clearly shown that there was a problem in that the instruction seemed to have little overall lasting impact on the learner's developing system' (p. 242-243).

Ferris's (2006) conclusion suggests that the nature of language forms may play a role in whether or not students retain language instruction (see also Ferris and Roberts, 2001; Bitchener et.al., 2004), an interpretation also shared by Jiang (2007) who contends that ' L2 learners are often more successful in learning some structures than others' (p.5). Schmidt (2001) explains this fact by stating that certain aspects of language require different amounts of attention. Since beginner learners are 'cognitively overloaded, they cannot pay attention to all meaningful differences at once' (Schmidt, 2001, p.7), so they learn simple structures first before they learn what is complex. This is also supported by Van Patten's principles of input processing, which state that learners first learn structures that are not redundant and that are meaningful and necessary for understanding (see 2.4; principle 1 c).

Still, the results of question 10 contradict the findings of Muranoi (2000) whose instruction of the rule-based indefinite article led students to perform better not only immediately after instruction but also in the long run. However, in that study, testing for long-term acquisition took place only five weeks after instruction, while my study compares the students' performance in week 6 (causal argument acting as covariate) to their performance in week 16 (final exam), a longer period of time.

Similarly, results of question 11 (Is trained peer-editing or trained self-editing more successful in reducing the percentage of non rule-based language errors in new essays?) showed no significant difference in the performance of the experimental and comparison groups. The students in the experimental group were unable to significantly reduce word choice and sentence structure errors in the long term, a finding that coincides with that of Ferris (2006) who found sentence structure errors to be 'untreatable'.

While neither peer-editing nor self-editing in Study Three significantly reduced non rule-based language errors in new essays, a meta- analysis by Norris and Ortega (2000 in R. Ellis, 2002) of 49 form focused instruction (FFI) studies concluded that explicit FFI results in a significant acquisition of second language and that the effects of FFI are durable. However, Ellis (2002) who reported the results of Norris and Ortega does not mention the languages examined in their meta- analysis nor the type of language errors addressed. On the other hand, a meta-analysis by Rod Ellis (2002) involving 11 form-focused instruction (FFI) studies concludes that FFI results in acquisition of implicit knowledge 'at least sometimes and that when it does the effects are durable' (p. 22). Ellis points out that FFI can lead to the acquisition of implicit knowledge (also called integrated knowledge, automatic competence) among adult learners when the target form is simple and students receive extensive instruction in it. However, the non rule-based errors in Study Three (W.W.; S.S.) are not simple but complex, and the students did not receive *extensive* instruction in them. Rather, the FFI that I gave my students was carried out over four practice peer-editing sessions (see *4.3.4*), during which I provided the students with grammar explanations. I explained the rules governing rule-based (S/V Agr and Pr. Agr.) linguistic structures and worked with them on spotting and correcting rule-based and non rule-based linguistic structures found in sample student essays. On the other hand, Ellis contends that a complex structure may be learnt with limited instruction, provided the target structure appears in non-instructional input (such as real-time conversation). However, since these non rule-based errors may appear in a variety of forms depending on their location in a sentence, there is a slim chance of encountering them in non-instructional input, in the exact form required in a specific construction. In other words, the fact that they are non-salient and difficult to notice may explain why my students did not store them in their memories as integrated knowledge.

The above discussion indicates that research studies have arrived at conflicting conclusions regarding the acquisition of language forms. If according to Van Patten's principles of input processing (IP), learners first process input that is meaningful and non-redundant, why did my students learn to reduce in revised drafts S/V Agr. and Pr. Agr. errors, which are redundant, but not W.W. and S.S. errors, which are not redundant? One explanation may be that students follow Van Patten's principles when they are unaided in language processing; i.e. they do not receive formal form instruction (FFI). On the other hand, the above review studies (Norris and Ortega, 2000; R. Ellis, 2002) have shown that FFI

reduces language errors. By giving students instructions about the rules governing rule-based errors (S/V Agr.; Pr. Agr.), students tend to learn these rules and reduce these errors in their revised essays as was the case in Study Three. However, non rule-based errors (W.W. and S.S.) are harder to avoid because they are complex, not salient, and not governed by rules. Accordingly, Schmidt (2001) suggests that teachers find a way to draw students' limited and selective attention to these language structures in order to facilitate their acquisition. This has pedagogical implications for teachers (see 6.2).

Moreover, in the case of Study Three, the fact that the experimental group did not significantly reduce rule-based and non rule-based errors in new essays does not necessarily mean that the rule-based and non rule-based language structures were not present in students' minds, for according to Jiang (2007), 'not all linguistic knowledge represented in a second language (L2) learner's mind is equal in terms of how readily it can be retrieved and applied …' (p.2). It is possible that these structures were stored in students' minds as explicit but not integrated knowledge. A defining characteristic of integrated knowledge is that it can be retrieved automatically (Jiang, 2007). This may mean that writers were not able to *retrieve* forms which existed in their minds as explicit knowledge, so they made rule-based and non rule-based errors in their final exam essays. In terms of Anderson's (19983, 1985) and McLaughlin's (1987, 1990, McLaughlin et.al., 1983) information processing theories, these language forms may have been stored in the learners' minds as declarative knowledge so they would require more time and practice than was available in class in order to be integrated in students' minds as procedural knowledge (Anderson, 1983, 1985) which they could automatically apply at the end of the term.

On the other hand, while the students' inability to retain language knowledge over a long period of time may be explained cognitively by slow processing ability, limited memory, and insufficient practice, a simpler explanation for the students' language performance at the end of the semester could be the short testing time. My students are generally grade-oriented. Since they only had two hours to write their final exam essay, which was 20% of their course grade, they may have been more concerned with developing the content and organisation of ideas in their essays knowing that these carried more weighting than language form, as I had always told them throughout the semester. As a result, they may have neglected to edit their language mistakes. However, this is unlikely to be the complete explanation since integrated

knowledge is produced automatically, which means students do not really have to ponder over the grammatical accuracy of integrated language forms.

Analysis of the experimental group's interview responses once again revealed the importance of the students' culture of learning in determining how they engaged in peer-editing. It often made them lack trust in their peers' ability to edit (question 4) and in their own ability to revise their essays (question 5). Another decisive factor in successful peer-editing appeared to be time. The students needed more time to learn peer-editing strategies and to apply them (see responses to interview question 5). This lack of adequate time affected their confidence in their ability to edit. Also, editing language errors seemed to be more difficult than editing content and organisation (see responses to interview question 6). However, the questions about their views revealed that they were eager to learn peer-editing skills.

Finally, the analysis of the peer-editing forms and revised essays indicated that the feedback's specificity and level of difficulty often determined whether or not the writer addressed it (*see 4.3.7.4*). Another important factor in the peer-editing process appeared to be the topic. Editors working on the same topic as their writers produced better content-specific feedback than those working on a different topic than that of their writers because, having worked on it in their own essays, editors were familiar with the ideas of that topic.

Having discussed all three studies, one discrepancy stands out. The students in Study One and Study Two did not seem to benefit as much from peer-editing as those in Study Three. I, their instructor, may have gained more experience in peer-editing over the semesters which helped me improve my training skills and the peer-editing form as well as allowed me to teach and monitor the editing of certain language errors that the students commonly made in their essays. This improvement in my training ability may have positively influenced my students' feedback skills, which gives further support to the findings of previous research studies that favour trained peer feedback over untrained one as well as points to the important role teachers play in preparing their students. One may also infer that proper teacher training is necessary for successful student engagement in peer-editing in the writing classroom. This has pedagogical implications for teachers (see 6.2).

5.4 Summary

Results of the first and third studies find support in Vygotsky's (1978) sociocultural theory. The students' ability to improve their second drafts with the help of peer feedback (Study Three) and to produce at the end of the semester better quality essays through self-editing (Studies One and Three) agree with Vygotsky's claim that language learning may be attributed to participation in socially mediated activities. Through interaction and mediation of meaning, the student moves from linguistic development through the help of a peer i.e. from other-regulation to independent linguistic performance i.e. self-regulation (Vygotsky, 1978). Thus, the success of social interaction and mediation in developing linguistic performance seemed to be demonstrated in my students' ability to improve their second drafts with the help of peer feedback as well as to produce better quality essays towards the end of the semester through self-editing (Study Three).

The overall study also shows the important role learners play in their own learning by choosing, or not choosing, to make certain revisions in their essays. This concept of agency is stressed by sociocultural theory which 'maintains that no amount of experimental or instructional manipulation (for example, structured input, controlled teacher talk, required information exchange tasks, etc.) can deflect the overpowering and transformative agency embodied in the learner' (Donato, 2000; p. 47). Thus, social interaction between peers has provided 'the means for mediating the individual's own mental functioning' (Donato, 2000; p. 45).

In addition, the effects of trained peer-editing demonstrated in Study One and Study Three may be explained by cognitive theories of second language acquisition (SLA), which describe the mental processes involved in SLA (see Anderson, 1983,1985; McLaughlin, 1987, 1990, McLaughlin et. al. 1983). Hence, in the above studies, the repetition of good writing strategies through peer-editing may have led the students to internalize these strategies, which resulted in better writing of new essays at the end of the term.

CHAPTER 6. CONCLUSION AND IMPLICATIONS

6.1 Conclusion

As stated earlier, results of Study One made me wonder whether students' ability to write new better quality essays was the result of training them in editing essays rather than of them receiving peer feedback since peer feedback did not seem to help them improve their second drafts. Study Two, which set out to explain the failure of peer-editing to improve students' revised drafts, revealed that students' culture of learning was partly responsible for students' peer-editing performance. The intervention I used in Study Two helped me bring about a change in students' attitudes towards peer-editing as well as improve some students' peer-editing skills. Using the insight I gained from Study Two, I embarked on Study Three, which reinvestigated the questions of Study One using a comparison group that practiced self-editing only and an experimental group that engaged in peer-editing. Results of questions 6, 7, and 8 of Study Three revealed that the students who engaged in peer-editing revised their essays better than those who only self-edited their essays despite the fact that the experimental group did demonstrate some regression during the semester (the problem/ solution essay). Moreover, results of questions 9, 10, and 11 showed that peer-editing allows the students to write new better quality essays that have not received peer feedback. These results seem to vouch for the usefulness of peer-editing as a technique in developing good writing skills. I have argued that the findings of the overall study need to be interpreted both from a sociocultural and a cognitive point of view. According to de Guerrero and Villamil (1994),

> the Vygotskian paradigm captures like no other the subtle interplay between collaborative interactions and independent individual functioning. In peer revision, the cognitive processes that are required for successful task completion are exercised in collaboration and then presumably internalized for eventual independent problem-solving (p. 493).

On the other hand, cognitive interpretations of SLA stress the mental processes that students engage in as they learn a language. However, Van Lier (2007) argues that

> the learner is a whole person, not an input processing brain that happens to be located inside a body that should preferably sit still while the input is

transmitted, received and computed by the brain. The learner is a social, embodied mind…. in need of forging productive identities that link the personal self to the new worldly demands presented by the new language. The world of negotiating new identities requires personal investment and engagement, things to do that make sense, and ways of doing them that are challenging , interesting, supported and satisfying (p. 62).

Hence, embracing the two lines of explanations of SLA, the sociocultural and the cognitive better describes how learners, through the help of peers, may revise their essays, become independent self-editors, and acquire better writing skills. Firth and Wagner (1997, 1998) call for a heterogeneous approach to language, for 'language is not only a cognitive phenomenon, the product of the individual's brain; it is also fundamentally a social phenomenon, acquired and used interactively in a variety of contexts for myriad practical purposes (1997, p.296). This echoes Thorne's (2000) belief that 'A mixing of theoretical and pedagogic principles based on divergent ideologies generates a "cohesion gap" of sorts' (p. 227).

Still, there are factors that may limit the success of peer-editing as a technique for writing development. From the sociocultural perspective, it seems that peer-editing may not be successful if learners do not understand the task at hand, if peers are not aware of their colleagues' needs, and if the assistance is not delivered within the learners' ZPD. On the cognitive level, learners may not be able to make use of the peers' knowledge in their essays if they are not conceptually capable of processing the feedback because it is above their current developmental level, or if they do not posses linguistic ability and/or learning strategies with which to make the suggested revisions. These factors may influence the results of peer-editing.

Furthermore, there are other student-specific factors, not monitored by this study, which may explain the lack of language development exhibited by the students in their final exam essay. Two of these factors are sufficiency and student motivation. Sengupta (1998) explains that students must have sufficient skills to successfully engage in a given task. However, I would argue that successful task completion may depend on two kinds of sufficiency: sufficient skills and sufficient time. Thus, students need to have sufficient practice of LLS and peer-editing skills and sufficient time to tackle complex comments that

entail seeking more information. It is also important to note that what is sufficient for one student may not be sufficient for another. Thus, the same method of instruction may help one student but not another and may lead some teachers to doubt the efficacy of peer-editing in improving students' writing quality. Still, perhaps the most important factor is motivation (Lo and Hyland, 2007). It is central to learning peer-editing skills because it provides students with the driving force to focus their attention on the task at hand, to interact with peers, to make sense of the skills taught, and to practice them as often as needed to reach the desired performance. Accordingly, it is recommended that future ESL studies examine the effects of sufficient practice and time on language acquisition.

Although teachers may not be able to control all the above-mentioned factors to enhance the success of peer-editing, it is recommended that peer-editing be introduced in the writing classroom since this study has contributed further support for the view that this constructivist approach helps students explore learning opportunities to build knowledge. Through negotiation of meaning and form, peer-editing allows students to exchange ideas, learn new concepts about writing, rationalise expressions and formulations, as well as gain confidence in their writing ability. Tynjälä (1999) asks about the kind of writing tasks in higher education that best enhance learning and the development of expertise. She concludes that they are tasks which promote active knowledge construction, allow students to make use of their previous knowledge, reflect on their experiences, allow them to apply theory to practice, and involve them in group discussion. Peer-editing is one task that fulfils all of the above requirements.

In addition, peer-editing promotes autonomous learning for 'Classroom procedures that are participatory, proactive, communal and collaborative are also of necessity reflective' (Little, 2007, p. 20) and 'reflective intervention' is a characteristic of autonomous learners (Burner, 1986, p.132 in Little, 2007, p.20). Thus, even if peer feedback is not always successful in helping students revise their drafts, peer-editing is still recommended because of its ability to make students internalise good writing skills that turn them into independent writers, which is the main goal of teaching writing. When students are mere receptors of knowledge, they may forget it later on, whereas when they collaborate to create knowledge about good writing, there is a good chance that they may transfer it to new contexts because they would have participated in defining good writing skills during their interactions together,

thus making knowledge their own 'action knowledge' (Barnes, 1976, p.81 in Little, 2007, p. 19).

6.2 Pedagogical Implications

The findings of the present study reveal that peer-editing has positive effects on students' writing quality that are superior to those resulting from self-editing. However, teachers' skills may well be a decisive factor in how successful peer-editing is (see 5.3). Thus, to help students engage properly in peer-editing, teachers are recommended to observe the following guidelines when introducing peer-editing in their classrooms.

1) Explain the benefits to counter skepticism

To start with, before expecting students to accept the idea of peer-editing as a revision technique, perhaps ESL teachers would consider exposing their students to the advantages that peer-editing could hold for them. Raising student awareness about the potential benefits of peer-editing could help reduce their skepticism towards a technique they may not know much about or may not have faith in. Students could be encouraged to peer-edit each other's essays to see how it helps them engage in critical reading and writing, practice speaking and listening skills, gain more ideas on a topic from a different perspective, explain their points of view, experience less writing anxiety, become more supportive of each other, show empathy towards their colleagues and adapt to people with different abilities and learning styles (Mangelsdorf and Schlumberger, 1992; Mittan, 1989; Stanley, 1992; Villamil and Guerrero, 1996). It is also likely to help them internalize the characteristics of good writing.

2) Train the students in the use of learning strategies

Peer-editing is a demanding activity. For it to be successful, it is recommended that students receive training in the use of learning strategies (Oxford and Crookall, 1989; Oxford and Ehrman, 1995; Green and Oxford, 1995), which would help them negotiate meaning and explore linguistic form. This makes the teacher's interventions essential:

> Learners cannot construct their knowledge out of nothing, neither can they know by instinct how to conduct focused and purposeful learning

conversations that shape themselves to the ways of thinking characteristic of the subject in question. Teachers remain indispensable, both as pedagogues and as discipline experts

(Little, 2007, p. 20).

3) Train students in providing useful feedback through modeling

Students not only need to receive training in learning strategies but also in giving proper feedback. Stanley (1992) points out that students cannot be expected to give effective comments on their colleagues' papers if they have not been well-trained in that art. Thus, teachers are recommended to allot a few class periods early in the semester to teach students how to provide feedback on a peer-editing form. Teachers may use ready-made editing forms available in some research studies (see samples in Ferris, 2003), or they may prepare their own forms to suit the requirements of the writing assignments. It is important to design a different peer-editing form for each type of writing assignment in order to make students aware of the specific components of each type of essay (Ferris, 2003). Moreover, it is advisable for teachers to model to students how to give content-specific and relevant feedback that takes into account the writer's message and voice. Nyikos and Oxford (1993) emphasize this point:

the modelling of strategies by teachers, accompanied by opportunities to practice applying these strategies while building toward communicative use, help students gain greater awareness of their personal learning needs and can help alter misconceptions that keep learners at low proficiency levels (p. 20-21).

4) Form optimal groups

I would also advise teachers to consider some variables which are important in group formation. One such factor is the number of students per editing group. Although a large group offers more feedback on an essay than a group of two, it is more convenient to pair students off since peer-editing would then take less class time and would allow the peers to develop closer ties and understand each other's thought processes better (Villamil and Guerrero, 1996; Ferris, 2003). Also, knowledge of students' cultures of learning seem to play

a role in the success of peer-editing. Students that have similar cultures of learning are likely to find it easier to peer-edit for each other than those who come from divergent learning backgrounds. Students from integrationist academic cultures are generally used to participating in class and to speaking their minds freely, whereas students from collectionist cultures may find this task hard (see 4.2; Holliday, 1994). Thus, pairing off students from the same or similar culture of learning may result in similar expectations. Moreover, pairing students according to the topic they had written on is advisable as shown by the results of Study Three. It is also recommended to allow students to choose their own peers and to change these peers when they want to.

5) *Provide motivating feedback*

One last factor to consider is whether it would motivate students to allot a high percentage of the course grade to peer-editing. If so, it is recommended that teachers grade students' peer-editing forms, giving extra grades to student editors who give clear and content-specific feedback. No matter how proficient students are, without motivation to do their task, they may not engage whole-heartedly in it.

Considering the above factors when incorporating peer-editing in the writing classroom could promote harmonious and positive interaction among group members and increase their chances of constructing new knowledge, thus paving their way to independent learning.

These guidelines have practical implications for implementation. To maximize the likelihood of success, teachers who are inexperienced in peer-editing may be trained in teaching peer-editing by following a similar approach to that used for training students. To start with, these teachers need to understand the rationale for peer-editing as well as to understand the concepts of sociocultural theory, which stress the importance of social interaction in bringing about language learning. Basing peer-editing in a theoretical framework may help them overcome their skepticism of it. Next, teachers could be trained to prepare editing forms that mirror the components of the writing assignments they are teaching, as different essay types require different components. Without proper editing forms, students may not know what to look for in an essay. Moreover, teachers may also be coached in preparing rubrics for grading editing forms and essays in order to increase grade

conformity, which in turn increases students' confidence in the grades teachers give. It is recommended that these rubrics be shared with students before graded assignments so they would know how their work is being evaluated. Most importantly, teachers need to learn how to model effective feedback to their own students. To achieve this purpose, trainers may use an overhead projector to show teachers how to properly complete the editing form and how to provide good feedback on essays that have not been revised. Trainers could also provide teachers with samples of 'intact' essays (before and after being revised in response to good and to poor feedback) in order to demonstrate how different types of feedback affect the quality of revised essays and consequently essay grades. To facilitate this training process, it would be quite helpful for teachers to receive at the beginning of the term a file that includes sample essays, samples of good and poor feedback, editing forms, rubrics, and other relevant material that they can refer to during their training and whenever the need arises. Needless to say, training teachers is initially time-consuming but likely to be worthwhile in the long run.

However, the task of peer-editing has its limitations in terms of time and class size. Teachers would need to allot a few class periods early in the semester to train students in editing and one class period per essay for peer-editing. This might take time away from explaining other instructional material in the syllabus. Moreover, with respect to class size, a class should not include more than 15-18 students since peer-editing entails process writing, where each student writes at least three drafts for each essay and fills an editing form, all of which must be checked and graded in order to motivate students to do them well. All this grading requires considerable time and attention from the teacher, hence the need for a small number of students per class. This, however, is not always possible. For example, in Lebanese tertiary institutions, class size for language courses is set at 25 students, which makes peer-editing very demanding of teachers' time and effort.

Another limitation of peer-editing is lack of student motivation. Despite the demonstrated advantages of peer-editing and the training received in it, some students may still not be motivated to apply it. This may be due to their culture of learning or their personalities (see Radecki and Swales, 1988). As a result, such students may be absent for peer-editing sessions, which negatively affects the writing performance of students whose peers do not show up to edit their essays.

My overall study also has its limitations. In Study One (see *4.1.4*), some of the items in the pilot peer-editing form were not clear, which may have resulted in some vague responses. Moreover, I was the only one to grade students' essays and editing forms, which reduced the reliability of my findings. Accordingly, in Study Two and Study Three, these limitations were resolved by clarifying the items on the editing form and requesting the help of instructors with very good teaching record to grade some of the essays and peer-editing forms in order to promote reliability. Still, the three studies included in this action research may have suffered from the fact that I was the teacher and researcher, which could have influenced students' responses to questionnaires and interviews and affected the behaviour during class observation (for a detailed analysis of the limitations of each study, see *4.1.4, 4.2.8, 4.3.10*).

Despite the limitations, the research has made some useful contributions. First, Study Three showed that improved writing in revised essays may be due not to teacher instruction in editing techniques but rather to peer interaction, thus answering the queries of some researchers (Berg, 1999; Connor and Asenavage, 1994) about the actual reason behind the students' improved writing performance.

Second, except for the studies grounded in sociocultural theory (De Guerrero and Villamil, 2000, 2006; Donato, 1994; Ohta, 2000, 2001; Villamil and de Guerrero, 2006), which were very small in scale, all the other studies on language errors reviewed in Chapter Two of this overall study have discussed the effect of teacher feedback on the students' correction of language errors, while Study Three examined peers' ability to correct language errors.

Third, the above research studies grounded in sociocultural theory do not differentiate between the types of language errors under study and in general do not examine whether or not student interaction leads to long-term acquisition of language errors. In this respect, this overall study makes an original contribution to research in this field. Study Three has shown that trained peers are able to correct and significantly reduce rule-based language errors (S/VAgr. and Pr. Agr.) in revised drafts. However, this improvement in language did not stand the test of time as the students appeared to have forgotten these language structures in the final exam essay (post-test), and non rule-based language errors (W.W. and S.S.) were not at all reduced in the revised drafts nor in new essays due to their complexity.

To conclude, the findings of Study Three (which re-examined some of the questions of Study One and Study Two) gives support to the efficacy of peer editing in improving the quality of students' revised and new essays, thus encouraging teachers to use this technique in their writing classrooms. Study Three also reveals that trained peer-editing is better than trained self-editing in promoting writer awareness of good writing skills, which indicates the importance of collaborative interaction in bringing about learning development. However, since the student sample in Study Three is not representative of the population, it is recommended that future research replicate this study to find out if another researcher would achieve similar results that promote the generalisation of its findings. Also, it would be interesting to examine in the future whether or not longer editing time, more editing sessions, and more practice of non rule-based linguistic structures investigated in this study may result in student reduction of these errors in their revised and new essays.

Appendix A   Grading Rubric

An "A" paper (90%) includes

- an introduction that has a clear one-sentence claim with evidence.
- logical backing of evidence (3 ideas).
- sufficient support for each main idea using outside sources.
- well organized ideas.
- a counter argument(s) and refutation(s).
- no logical fallacies.
- a conclusion that sums up the argument, calls for action (where applicable) and offers closure.
- proper documentation of sources using the APA style.
- fluent language with occasional mistakes in grammar, ideas and mechanics.

A "B" paper (80%) includes

- a proper introduction that has a clear one sentence argument with evidence.
- a good backing of evidence (3 ideas).
- few weak supporting details.
- a counter argument and refutation.
- one or two logical fallacies.
- a conclusion that sums up the argument, but does not call for action (where applicable) nor provide closure.
- proper documentation of sources using the APA style.
- few mistakes in grammar, vocabulary and mechanics.

A "C" paper (70%) includes

- a brief introduction with a good claim and evidence.
- insufficient backing (2 ideas instead of 3).
- some weak supporting details.
- good organization.
- a counter argument but no refutation.
- few logical fallacies.
- a brief conclusion that sums up the argument but doesn't call for action (where applicable) nor provide closure.
- improper documentation of sources.
- some mistakes in grammar, sentence structure, vocabulary and mechanics.

A "D" paper (60%) includes

- a rather weak introduction with a vague claim not linked to evidence. (It may be written in several sentences.)
- weak backing based on inferences.

- irrelevant supporting details.
- some problems with organization.
- no counter argument(s) and refutation(s).
- some logical fallacies.
- a weak conclusion that sums up only some of the main ideas, does not call for action (where applicable) nor provide closure.
- no sources.
- many mistakes in sentence structure, grammar, vocabulary and mechanics that affect comprehension.

An "F" paper (50%) includes

- a few sentences that do not actually introduce the argument.
- no claim.
- mostly irrelevant and /or repetitive backing.
- irrelevant/ weak supporting details.
- poorly organized ideas.
- several logical fallacies.
- a concluding paragraph that doesn't summarize the main ideas, does not call for action (where applicable) nor offer closure.
- no sources.
- Serious language mistakes in grammar, vocabulary, sentence structure, and mechanics that impede comprehension.

Appendix B   Editing Form (Causal Argument) of Study One

Writer's Name: _____
Editor's Name: _____

- Introduction of

    Audience _____
    Purpose   _____
    Point of view _____
    Clear one-sentence claim with evidence _____

- Logical support for each evidence _____

- Sufficient support for each main idea

    Body paragraph 1 _____
    Body paragraph 2 _____
    Body paragraph 3 _____

- Well-organized ideas _____

- A counter argument(s) _____ and refutation(s) _____

- No logical fallacies _____

- The conclusion

    Sums up the argument _____
    Calls for action (where applicable) _____
    Offers closure _____

- Fluent language with occasional mistakes in

    Grammar _____
    Mechanics _____

- Use of sources _____

What did you like best about this essay?

_____

_____

What are the specific areas that need to be improved?

_____

_____

Appendix C Editing Form (Problem/Solution) of Study One

Writer's Name: _____
Editor's Name: _____
Audience: _____
Purpose: _____
Point of view: _____

Introduction:

- Includes relevant background highlighting the effects of the problem _____

- Provides a clear-one sentence claim introducing the problem _____

Body:

- Discusses the causes of the problem _____

- Provides relevant supporting details _____

- Suggests possible solutions _____ and refutes them _____

- Proposes the best solution _____

- Explain the steps to implement the best solution _____

Conclusion:

- Restates the claim (the problem) _____

- Sums up the main argument (solution) _____

- Calls for action _____

Credibility:

- No logical fallacies _____

- Reference to two credible sources _____

What did you like best about this essay?

_____

_____

What are the specific areas that need to be improved?

_____

_____

Appendix D   Questionnaire of Study One

1. Have you ever engaged in peer-editing as part of a course requirement before?
2. Has the process of peer-editing been well-explained in this class?
3. Are you aware of the rationale behind peer-editing?
4. Has peer-editing helped you in fixing your essay content?
5. Has peer-editing helped you in fixing the organization of ideas in your essay?
6. Has peer-editing helped you in correcting the language mistakes in your essay?
7. Have you reviewed your essays in response to your peer-editor's comments?
8. Which peer comments do you consider most helpful in assisting you to review your essays? Content, organization, language?
9. Do you consider peer-editing a successful revision methodology?
10. Are you able to self-edit your own essays now?
11. Were you able to self-edit your own essays before you were taught to practice peer-editing?
12. Do you think having the same peer-editor throughout the semester is a good idea?
13. Are the peer response forms helpful in guiding students in peer-editing?
14. Do you think that peer-editing is properly achieved when peer groups consist of two students?
15. Should group members be more than two?
16. Would you like to engage in peer-editing in your other English writing courses?
17. Would you like to be grouped according to gender, language ability, or both?

Appendix E   Editing Form (Causal Argument) of Study Two

Writer's Name: _____
Editor's Name: _____
Audience_____
Purpose _____
Point of view _____
Title_____

Content (2points)

- Paragraph 1 introduces the topic and includes relevant background information. _____

- Paragraph 1 ends with a clear one- sentence claim with evidence _____

- Paragraph 2 includes the first main reason for the writer's argument _____ and

  includes sufficient support _____.

- Paragraph 3 includes the second main reason for the writer's argument ____ and includes sufficient support _____.

- Paragraph 4 includes the third main reason for the writer's argument _____ and includes sufficient support _____.
- The essay includes a counter argument(s) _____ and refutation(s) _____

- The conclusion restates the claim. _____

- The conclusion sums up the argument _____ and offers closure. _____

Organization (2points)
- Each paragraph starts with a topic sentence. _____
- There is repetition in paragraph 2_____; in paragraph 3_____; in paragraph 4_____.
- There are irrelevant ideas in paragraph 2 _____; in paragraph 3; _____ in paragraph   4 _____.
- Paragraphs are well- connected using transitional signals. _____

Credibility (2points)
- The essay has logical fallacies. _____
- The essay includes proper in-text citations. _____
- The essay has reference to two credible sources. _____

<u>Editor's Suggestions regarding this essay. Give paragraph and line number. (4 points)</u>

Add: _____

_____

Delete: _____

_____

Keep: _____

_____

Change: _____

_____

Adapted from Killgalon (1994)

Peer Editing Rubric

Stage 1. (1 - 2 points): The student does not understand the criteria of good argumentative essay writing. Many wrong, incomplete or unfilled responses.

Stage 2. (3 – 4 points): The student has a very basic understanding of the criteria of good argumentative essay writing. Some wrong, incomplete or unfilled responses. The student is generally unable to suggest specific modifications to the essay in terms of content, organization, and logical reasoning.

Stage 3. (5 -6 points): The student understands the criteria of good argumentative essay writing and can spot most of its available or missing components. However, comments pertaining to the essay content, organization, and/or logical reasoning are vague, general, or irrelevant.

Stage 4. (7 -8 points): The student understands well the criteria of good argumentative essay writing. He/she can spot most of its available or missing essay components as well as suggest some content-specific modifications. The student may face some difficulty in organization and/or logical reasoning.

Stage 5. (9 -10 points): The student understands very well the criteria of good argumentative essay writing. He/she can spot its available or missing essay components as well as suggest necessary

content-specific modifications. The student may face little difficulty in organization or logical reasoning.

Appendix F   Questionnaire of Study Two

Name: Native Language:

Nationality: School:

1. Were you given assigned topics when you wrote essays in English at

    school? (Circle one)

> Always   Usually   Sometimes   Never

2. What techniques did your teacher use to teach writing in English? (Circle

    as many as apply)

> a-   We read and imitated examples of famous writers.
>
> b-   We read and imitated examples of student writers.
>
> c-   We re-copied examples.
>
> d-   The teacher lectured.
>
> e-   We wrote in class.
>
> f-   We discussed writing.
>
> g-   We read a book about writing.
>
> h-   We learned patterns of organization.
>
> i-   We practiced our handwriting.
>
> j-   We peer-edited each other's essays.
>
> k-   We wrote letters to other people.
>
> l-   We wrote research papers.
>
> m- We read our papers out loud.
>
> n-   We wrote journals or diaries.
>
> o-   We studied grammar and did grammar exercises.
>
> p-   We memorized writing done by famous people.
>
> q-   We gave speeches.
>
> r-   Other techniques: _____
>
> _____

3. Did the essays you wrote in English relate to readings discussed in class?

> Always   Usually   Sometimes   Never

4. How did your teachers of English help you before an assignment was due?

_____

_____

5. According to your high school/ secondary teachers of English, what is the best way in writing to convince or persuade an audience of your position?

_____

_____

6. According to your high school/ secondary school teachers of English, how should a paper be organized? Please explain in detail.

_____

_____

_____

7. Which of these things did your teachers emphasize when they graded your English essays? (Circle as many as apply.)

      a- Beauty of language

      b- Clarity of main idea

      c- Correct grammar and spelling

      d- Expressing your true feelings honestly

      e- Length of paper

      f- Neatness and handwriting

      g- Originality and imagination

      h- Organization

      i- Persuasiveness

      j- Quoting experts and other sources

      k- Truth of my ideas

      l- Using good examples and details to illustrate main ideas

      m- Other _____

8. Which three things from the above list were most emphasized?

      Most important _____

Second most important _____

Third most important _____

9. At high school, did you rewrite the essays you wrote in English? (Circle one)

Always   Usually   Sometimes   Never

10. When you rewrote papers, what sort of changes did you make?

_____

_____

Adapted from Liebman (1992)

Appendix G   Interview Questions of Study Two

1) Has peer-editing been well explained in class?

2) Do you think peer-editing is applicable at this institution?

3) Do you consider peer-editing a successful or unsuccessful revision method?

4) Do you trust your peer-editor's comments and respond to them in your writing?

5) Do you feel your comments helped your colleague improve his/her essay?

6) What aspect(s) of peer-editing do you have difficulty in? Why?

7) Is having the same peer-editor throughout the semester a good or bad idea?

8) Would you like to be grouped according to language ability or friendship?

9) What can the instructor do to motivate you to take peer-editing seriously?

10) How can peer-editing forms be improved?

Appendix H   Problem/solution Peer-Editing Form of Study Three

Writer's Name: _____
Editor's Name: _____
Audience: _____
Purpose: _____
Point of view: _____

I. Checklist

Content

- Paragraph 1 introduces the topic and includes relevant background information highlighting the effects of the problem. _____

- Paragraph 1 ends with a clear one- sentence claim _____

- Paragraph 2 discusses the causes of the problem _____ and includes sufficient

  support_____.

- Paragraph 3 suggests possible solutions for the problem ____ and refutes them_____.

- Paragraph 4 proposes the best solution to the problem _____ and provides a

  method of implementation.

- The conclusion restates the claim. _____

- The conclusion sums up the argument _____ and offers closure. _____

Organization
- Each paragraph starts with a topic sentence. _____
- There is repetition in paragraph 2_____; in paragraph 3_____; in paragraph 4_____.
- There are irrelevant ideas in paragraph 2 _____; in paragraph 3; _____ in paragraph   4 _____.
- Paragraphs are well- connected using transitional signals. _____

Credibility
- The essay has logical fallacies. _____
- The essay includes proper in-text citations. _____
- The essay has reference to two credible sources. _____

II. Editor's Suggestions regarding this essay (give paragraph and line number)

Add: _____
_____

Delete: _____
_____

Keep: _____
_____

Change: _____
_____

III. Tabulate errors in subject/verb agreement (S/V Agr.), pronoun agreement (Pr. Agr.), and wrong word choice (W.W.) and correct these errors to the best of your ability.

Error	Type of Error	Line Number	Correction

Below, copy the awkward sentence structure(s) found in the essay, state the line number(s) then correct the awkward structure(s).

_____

_____

_____

_____

_____

_____

_____

_____

Appendix I   Questionnaire of Study Three

Student's Name: _____   Age: _____

Native Language: _____   Nationality: _____

1. How long have you studied writing in English?

 (a) 1-4 years   (b) 5-8 years   (c) 9-12 years   (d) 13-16 years

2. What techniques did your teacher use to teach you writing in English? (Circle as many as apply.)

    a- We read and imitated examples of famous writers.

    b- We read and imitated examples of student writers.

    c- We re-copied examples.

    d- The teacher lectured.

    e- We wrote in class.

    f- We discussed writing.

    g- We read a book about writing.

    h- We learned patterns of organization.

    i- We practiced our handwriting.

    j- We peer-edited each other's essays.

    k- We wrote letters to other people.

    l- We wrote research papers.

    m- We read our papers out loud.

    n- We wrote journals or diaries.

    o- We studied grammar and did grammar exercises.

    p- We memorized writing done by famous people.

    q- We gave speeches.

3. Which three things from the list below did your teachers emphasize when they graded your essays? (Circle as many as apply.)

    a- Beauty of language

    b- Clarity of main idea

    c- Correct grammar and spelling

    d- Expressing your true feelings honestly

e- Length of paper

f- Neatness and handwriting

g- Originality and imagination

h- Organization

i- Persuasiveness

j- Quoting experts and other sources

k- Truth of my ideas

l- Using good examples and details to illustrate main ideas

m- Other _____

Most important _____

Second most important _____

Third most important _____

4. At high school, did you rewrite your English essays? (Circle one.)

    (a) Always   (b) Usually   (c) Sometimes   (d) Never

5. When you rewrote essays, what sort of changes did you make?

(a) Changes in content   (b) Changes in organisation (c) Changes in Language (d) None

6. If you were asked to evaluate a student's essay, how would this practice make you feel?

    (i) Worried about offending the writer

        (a) Always_____ (b) Often_____ (c) Sometimes_____ (d) Never_____

    (ii) Eager to please the writer with kind words

        (a) Always_____ (b) Often_____ (c) Sometimes_____ (d) Never_____

    (iii)   Confident of your ability to point out the essay's strength and weakness

        (a) Always_____ (b) Often_____   (c) Sometimes_____ (d) Never_____

    (iv)   Unsure of your ability to peer-edit

        (a) Always_____ (b) Often_____   (c) Sometimes_____ (d) Never_____

7. Do you trust your colleague's comments about your writing?

(a) Always_____ (b) Often_____ (c) Sometimes_____ (d) Never_____

8. Peer-editors, when properly trained, may correct each other's language errors.
    (a) Strongly Agree_____ (b) Agree_____ (c) Disagree_____
    (d) Strongly Disagree _____

9. To improve your language ability, you will depend on
    (a) teacher's help_____ (b) colleague's help_____ (c) a grammar book_____
    (d) yourself _____

10. Rate your language ability.
    (a) Excellent_____ (b) Good_____ (c) Average_____ (d) Poor _____

Adapted from: Liebman. (1992)

Appendix J. Interview Questions of the Experimental Group

1. Has the process and rationale of peer-editing been well explained in this course?
2. Do you consider peer-editing applicable at this university?
3. Do you consider peer-editing a successful or unsuccessful revision method?
4. Do you trust your peer-editor's comments and respond to them in your writing?
5. Do you feel your comments helped your colleague improve his/her essay?
6. What aspect(s) of peer-editing do you have difficulty in? Why?
7. Is having the same peer-editor throughout the semester a good or a bad idea?
8. Would you like to be grouped according to language ability, or friendship?
9. What can the teacher do to motivate you to take peer-editing seriously?
10. How can peer-editing forms be improved?
11. Do you think peer-editing or self-editing helps you better improve your essay quality?
12. In the future, should I continue training my students in peer-editing?

Appendix K. Interview Questions of the Comparison Group

1. Has the process and rationale of self-editing been well explained in this course?
2. Do you consider self-editing is a successful or unsuccessful revision method?
3. Did self-editing help you improve your essay?
4. What aspect(s) of self-editing do you have difficulty in? Why?
5. Is having a peer to edit your essay more helpful in determining your weaknesses than doing self-editing?
6. What can the teacher do to motivate you to take self-editing seriously?
7. How can editing forms be improved?
8. In the future, should I continue training my students in self-editing or should I try peer-editing?

Appendix L: Sample Essays with Coded Errors[1]

Sample 1:

Position Argument

Topic: With reference to Hein's (1993) article entitled Don't Wobble over Immigration, argue for or against applying strict rules on immigration. Be sure to include in-text citations from two sources, a counter argument, refutation, and a list of references.

Immigrants Are Causing Problems

According to Jeremy Hein, since the 1970's refugees have caused serious problem in the third world. In general everyone seek [S/V Agr.] to have a good job in order to fulfill all his needs. In a country where there are low salaries, lack of job opportunities, citizens always tend to travel to find an appropriate job. Every country suffers from immigrants. For instant [W.W.] in America, immigrants are causing several disadvantages [W.W.] from which job opportunities, mixture of culture and political problems are the most effected [W.W.] ones [S.S.]. Therefore, government should apply strict rules for all the immigrants all over the world.

To start with, in America, Mexicans are causing a serious problem. For example, Mexicans in America work for a very low wage per month. They earn approximately two hundreds dollars, where [W.W.] Americans refuse to have. [W.W.] Americans are not able to work for only two hundred dollars per month and fulfill all their needs. Therefore, companies, markets and stores prefer to hire a Mexican citizen with a low salary rather than hiring an American citizen with a double or maybe triple the amount. [W.W.] As a result Americans are losing the opportunities to work, especially the analphabet [W.W.] american citizens, because they mostly work in markets, stores, and in constructing buildings.

In addition, the mixture of cultures is also causing a problem in America. For instant[[W.W.] Mexican's cultures are spreading out very fast in America. In fact, a very high number of American people is [S/V Agr.] effecting by foreign culture. Americans are changing the way they dress, the way they talk and their whole way of life. For example, all the Americans change the way they eat, they prefer some Mexican foods and tend to open Mexican restaurant. In fact this issue is also affecting the American's restaurants because due to some Mexican's restaurant the choice of the American food is decreasing [S.S.]. Americans are also affected by the Mexicans' music as well as their arts. For example, samba and salsa dance are well known in America, these kind of dance came from Mexico and have spread out all over the world.

Furthermore, mexicans are making serious political problems. Unfortunately Mexicans are taking some parts of the Americans cities and transform them as their own homes [W.W.] [S.S.]. According to Jeremey Hein a sociologist, in 1951, the United Nations consider [S/V Agr.] a "refugee" cause [S/V Agr.] a rounded fear of nationality, in particular social group or political opinion [S.S.]. According to Ben Wattenberg, Mexicans are causing

---

[1] Coded errors shown in square brackets

problems in America and they are making from America cities their own cities. As a result, these factors provide [W.W.] several political problems and put Americans citizens into danger. Americans citizens feel scared while living in their own country due to these illegal [W.W.] acts committed by Mexicans.

On the other hand, immigrants play also a positive way [W.W.] in the country. According to Ben Wattenberg, immigrants are "the best salesmen". Mexicans who work in markets, stores and in constructing buildings are the reason in "recruiting economies" (p. 445) and in the prosperity of the country. In fact, mexicans take jobs that americans do not take. Mexicans are the creators [W.W.] of the highest buildings and shopping center and markets. Although mexicans are the "best salesmen" they cause a lot of serious problems and prevent american citizens from taking any job in markets and stores.

In conclusion, strict rules must be applied. According to Jeremy Hein "the fact about refugees is that they break ties with their home state and seek protection from a host state through migration". Immigrants such as Mexicans in America are affecting American citizens negatively. Mexicans are causing a lack [W.W.] of job opportunities, mixture of cultures, and serious political problems which are affecting the county negatively [S.S.].

References:
Hein, J. (1993) Refugees, immigrants, and the state. <u>Annual Review of Sociology</u>. Questa Media America (2007) vol 19,
Wattenberg, B (2002) Don't Wobble on Immigration: <u>An Argument text and Reader</u>. Mc Graw-Hill, NY

Sample 2:

Problem/Solution Argument

Topic: With reference to Wilson's (2000) article entitled War on Drugs, argue for/against legalizing drug plantations in Lebanon as a means of improving the Lebanese economy. If you agree with this solution, suggest a method of implementing it. If not, suggest an alternative method to improve the economy and discuss how to implement it.

Better late then never

Lebanon has witnessed many tough periods like civil war that caused the deterioration of the nation's economy. After that war ended a serious economic plan wasn't proposed by government [S.S.]. People usually tried to find ways to survive. For a period of time drug plantations seemed to be a solution but it [Pr. Agr.] have bad effects on society and national security. Drug plantations in Lebanon should not be legalized, they should be replaced by another source of income.

First of all, poverty caused by economic situation, unemployment and the critical political situation in Lebanon are [S/V Agr.] one more [W.W.] reason why drug plantations developed in Lebanon. According to Mark Moore the "risk drug price" issue is presented as that price of drugs would fall and this decline may encourage people to buy them [S.S.].

People usually finds [S/V Agr.] that drug plantations give [W.W.] in a small [W.W.] period fast cash and it [Pr. Agr.] doesn't need big capital to start the business.

On the other hand the government usually try [S/V Agr.] to limit plantation, they [Pr. Agr.] search for a way to conceive [W.W.] drug plantation as a solution but without harming the society [S.S.]. According to James Q. Wilson if drugs are legalized the crimes will decrease but the total number of users will increase and the presence of drugs in a country would increase the risk to have drug dealers and to create black markets [S.S.].

Finally the best way to control drug plantations in Lebanon is illegalizing them through a serious plan to establish a strategy to provide another source of income to people [S.S.]. In this case Lebanon true wealth is tourism. Relying on its distinctive nature, resort should be built to create more job opportunities government should set more simplified procedures to apply for tourist visa. Commercial businesses should start and Lebanese employees should be imposed on companies.

Government should begin to create [W.W.] committee's to study the economic problem in Lebanon, these committee should present a plan for a long/short term and this plan should be putted into action as fast as possible.

Reference:
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