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The American University in Cairo

School of Humanities and Social Sciences

**The Effect of Collaborative Writing on Individual
Writing Performance**

A Thesis Submitted to

The Department of Applied Linguistics

in partial fulfillment of the requirements for
the degree of Master of Arts

by Sara Mostafa Kotb

Under the supervision of Dr. Amira Agameya

December, 2016

The American University in Cairo

School of Humanities and Social Sciences

The Effect of Collaborative Writing on Individual Writing Performance

A Thesis Submitted by

Sara Mostafa Kotb

Submitted to The Department of Applied Linguistics

December, 2016

In partial fulfillment of the requirements for
The degree of Master of Arts in Teaching English to Speakers of Other Languages

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Abstract

The present study investigated the effectiveness of using collaborative writing (CW) on an individual's writing performance. It involved a total of 61 participants who were adult ESL learners enrolled in a general English course at a language center in Cairo. All learners were assessed to be at a border-line A2/ B1 level on the CEFR scale , based on a placement exam conducted by the institute. The sample was divided into two groups: an experimental group and a control group. For both groups a pre-test and a post-test were administered to track individuals' progress. During the treatment stage, participants in the experimental group were asked to write three writing tasks collaboratively in groups of three or four, while the individuals in the control group were asked to write the same tasks individually. After finishing the treatment stage and administering the post-test, all writing samples were scored by three raters using an analytical scoring rubric to ensure reliability of results. Then the scores for both groups were compared using t-tests to check for significant improvement in specific language features.

The results of the study show a significant improvement in the overall writing quality of learners who were exposed to the collaborative writing task. Significant improvement was also observed in certain writing features, namely mechanics and organization, but not for grammar, vocabulary or content. When a textual analysis was conducted on the writing samples, the results showed that participants in the experimental group had a higher tendency to write longer texts and to add an appropriate conclusion that would properly wrap up the writing.

This study offered a number of pedagogical implications as it gave further evidence of the value of using collaborative writing in the classroom and it highlighted directions that could be targeted for further research.

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List of Abbreviations

- AUC: The American University in Cairo
- ESL: English as a Second Language
- EFL: English as a foreign language
- L2: Second language
- SCE: School of Continuing Education
- SLA: Second Language Acquisition
- CW: Collaborative writing
- ZPD: Zone of Proximal Development

Chapter 1: Introduction

1.1 Overview and rationale

Collaboration is a term used in almost all language classes. In today's classes, learners are required and expected to collaborate together when they are accomplishing most of the activities in their classes such as reading, listening, speaking and even writing activities. Thus, collaborative tasks are gaining more popularity and are becoming an essential tool in the teaching and learning process. Both theoretical and pedagogical considerations have supported the importance of using collaborative tasks in the classroom. The support for using collaborative work in the class goes back to the 1970s, when Vygotsky (1978) proposed the notion of the zone of proximal development (ZPD) which provided theoretical evidence for the importance of collaboration. This theory highlighted the importance of having capable peers to guide each other through problem solving, helping them move from their current level to the level of potential development. From a pedagogical perspective, research has presented the effectiveness of collaborative tasks inside the classroom. These tasks can positively affect productive language skills such as the students' writing skills (Dobao, 2012; Mahmoud, 2014; Storch, 2005), their verbal interaction (Saleh, Lazonder, & Jong, 2007) and their vocabulary knowledge (Dobao, 2014b; Kim, 2008; Nassaji & Tian, 2010).

A number of studies have focused on the effectiveness of collaborative writing tasks in particular. Collaborative writing tasks generally refer to the tasks that require learners to work in pairs or small groups to produce one jointly written text (Swain, 2001). In this study, the effectiveness of collaborative writing tasks on individuals' writing performance will be explored to identify the writing features that are affected by these tasks. The implications of the study

include some suggestions for the utilization of collaborative tasks in the classroom. Hopefully, the findings will encourage teachers to implement these tasks in their classrooms. In addition, the findings suggest some strategies for improving how collaborative writing is administered.

1.2 Background information on collaborative writing

The very nature of collaboration requires learners to work together and to exchange information; collaborative writing tasks are no different. Some researchers analyzed the nature of the feedback provided in these tasks and found that the feedback provided by group members to one another in collaborative writing activities has a number of features that make it valuable for second language learning (Storch, 2013). First, the feedback in these activities is provided in a timely manner, as learners receive synchronous, immediate feedback as compared to delayed teacher or peer feedback. It is also more likely to be accepted and incorporated into students' writing than peer feedback. In addition, the feedback that is provided during collaborative writing is important as it can provide learners with task assistance through scaffolding (Ohta, 2000).

During collaborative writing tasks, learners are also provided with the opportunity to employ the target language and use it for a number of functions to communicate and to convey their ideas if instructed to do so. In Storch and Wigglesworth's (2007) study, which was conducted with advanced ESL learners, they investigated how learners used the L2 in their collaborative writing tasks. The study showed that in order to create sentences in their writing, learners offered suggestions and counter-suggestions to one another about the choice of expressions. They also provided explanations for their choices and corrected grammatical mistakes proposed by their group members. Along the same lines, another study investigated

whether learners who completed tasks using meaningful output activities (i.e. writing tasks) made more progress than those who completed tasks using traditional mechanical approaches (i.e. grammatical drills) (Abadikhah, 2012). The results of this study showed that meaning-focused writing tasks generated longer discussions and promoted more language use than traditional teaching techniques.

A number of studies have looked into how the texts written by an individual person differed from the text produced by a group who wrote one text collaboratively. Some studies have investigated how the grammar and structure differed in both texts (Jabbarpoor & Tajeddin, 2013; Nassaji & Tian, 2010; Storch, 2005); others investigated the effect of collaborative writing on the accuracy of the text (Malmqvist, 2005). Some looked at the writing from a wider perspective and investigated the mistakes made in group writing versus individual writings (Mahmoud, 2014) and others investigated the quality of the content in these writings (Dobao, 2012; Storch, 2005; Storch & Wigglesworth, 2007).

In Nassaji and Tian's (2010) study, the researchers compared individual and collaborative work of low intermediate adult ESL learners in a university in Canada. They wanted to investigate whether collaborative tasks had an effect on the acquisition of phrasal verbs. To conduct the study participants took both a pre-test and a post-test evaluating their knowledge of phrasal verbs. The findings of the study showed that even though the quality of the written texts produced by students working collaboratively was significantly better than the texts produced by learners working individually, there was no significant effect on the long-term acquisition of phrasal verbs. Malmqvist's (2005) study highlighted the positive effect of collaboration on the writing accuracy. The study was conducted with L3 learners of German. The observer found that even though individually written texts had some fragments and incomplete sentences, all

sentences written collaboratively were full sentences. In addition, the sentences written collaboratively tended to be longer and have more lexical complexity versus sentences written individually. In addition, the sentences written collaboratively had more variety of clauses and subordinate clauses.

The effectiveness of collaborative tasks in general and collaborative writing tasks in particular was highlighted in the previous section. However, despite the variety of evidence that supports the importance of implementing collaborative tasks in the classroom, few studies have investigated the effectiveness of collaborative writing tasks in particular on the students' individual writing performance. The studies exploring collaborative writing mainly looked at the nature of the feedback provided, the opportunities presented for using the target language, and compared individual and collaborative writing samples. The idea of whether the production of more accurate texts in group writings meant that the learners had actually acquired this vocabulary or grammatical structure or not still needs to be explored. While researchers have identified how the text produced by a group of individuals collaboratively is better than that produced individually, further research is still needed to identify the actual benefits of collaborative writing tasks on the individuals' writing performance and language acquisition. It is also important to investigate the specific writing features that might be affected by collaborative writing tasks as well as how the written texts would vary if individuals were previously exposed to collaborative writing.

1.3 Research questions

In light of the above, it could be concluded that research still needs to be conducted on the actual benefits of collaborative writing on students' individual writing performance. That is why

the present study investigates the effectiveness of using collaborative writing on the learners' individual writing performance. These gaps helped present the research questions that the present study aims to answer:

1. What is the effect of collaborative writing on the quality of students' individual writing?
2. How do the texts produced by learners who received traditional writing instruction differ from the texts produced by learners who used collaborative writing in terms of:

- a) Fluency
- b) Organizational patterns

1.4 Delimitations

The present study focuses on the effectiveness of collaborative writing tasks on students' overall writing performance. However, the proficiency level of these learners is not considered. The researcher conducted the study on individuals of the same level as placed by the placement exam conducted by the School of Continuing Education (SCE) at the American University in Cairo (AUC) i.e. investigating the effectiveness of collaborative writing on individuals' writing performance across different proficiency levels is beyond the scope of the study.

It is also clear from the literature that almost none of the researchers have conducted collaborative writing tasks where the groups consisted of three members per group. The number of participants in each group is usually either two or four members. However, the researcher will not attempt to consider the number of participants in this task as a variable in the research.

Unlike Dobao's (2012) research which focus on comparing pair work versus group work, the present study does not consider number of participants in the group among the tested variables.

1.5 Definition of Constructs

1.5.1 Theoretical definitions of terms and constructs

Collaborative task: They are the tasks that are achieved by students working in groups to reach a common learning goal. They are usually accomplished by group work rather than individual work (Barkley, Cross, & Major, 2014).

Collaborative writing task: It can be described as a task that requires learners to work in small groups and produce one jointly written text (Swain, 2001).

Zone of proximal development: It is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under guidance from a more capable individual or through collaboration with peers. (Vygotsky, 1978).

1.5.2 Operational definitions of terms and constructs

Writing performance: The quality of a written text as rated according to a specific scoring rubric.

Fluency: The total number of words per essay (Gebril & Plakans, 2013).

Organization patterns: Refers to how an individual student organizes his/ her writing focusing on the location of the main idea and the presence or absence of a summary statement (Hirose, 2003).

Chapter 2: Literature Review

Since *collaboration* is one of the essential teaching techniques in ESL classes today, it has been extensively studied over the years. This chapter aims at shedding light on the available literature that examines collaborative tasks in general and collaborative writing tasks in particular since they constitute the main focus of this study. The review is organized thematically where the first section provides the theoretical background and rationale of the study. This section outlines some of the famous theories in this field and how they promote collaboration as in Vygotsky's (1978) ZPD theory, Long's (1983) interaction hypothesis and Swain's (1985) output hypothesis. The second section clearly defines what collaborative writing is, how it is implemented and introduces some of its most significant features. The effects of collaborative tasks are introduced in the subsequent section where the literature on both collaborative tasks in general and collaborative writing tasks in particular are presented. The following section compares how individual writing differs from collaborative writing and this presents the gap for the research questions. Finally, the last section of the review looks into the learners' attitudes towards collaborative writing, which is an essential factor that needed to be addressed when conducting the study and when answering the research question proposed in this study.

2.1 Theoretical background and rationale

Second Language Acquisition (SLA) has been studied over the years from a wide range of perspectives. Scholars have come up with different theories to explain how learners acquire language. While scholars like Long (1983) and Swain (1985) proposed that language acquisition is primarily a cognitive process, other scholars like Vygotsky (1978, 1981) proposed that learning has both a cognitive and a social dimension. Vygotsky added this social dimension in

his sociocultural theory, which looked at language learners as social beings and thus he proposed that all types of cognitive development, which includes the language development, is part of their social interaction.

2.1.1. Cognitive approaches to L2 learning

Long (1983) came up with the interaction hypothesis after he compared the conversations conducted between nonnative speakers and native speakers and those conducted between two native speakers. He found that what differentiated the two dialogues were some conversational moves that helped both interlocutors understand the message being communicated. These conversational moves included both comprehension checks and clarification requests, which he grouped under the term “negotiation for meaning”. His findings showed that when the input was not understandable, speakers tended to resort to using negotiation of meaning techniques to avoid a breakdown in communication. These techniques led to the rephrasing of the output, making it a bit more comprehensible. That is why Long argued that verbal interaction, which included negotiation of meaning, contributed to the promotion of acquisition by giving learners the input they needed.

Swain (1985, 1993), in reaction to Krashen’s Input Hypothesis (1982), focused not only on the input gained from the process but she was more interested in the output produced by the learners. She proposed the notion of comprehensible output, which she later revised to the pushed output hypothesis. Swain argued that producing language or providing output is essential to the acquisition of second language because output allows the learners’ grammar in their interlanguage to develop. This meant that writing and speaking had a role in providing learners with practice opportunities and thus these opportunities for practice helped develop their language fluency. However, she stated that for accuracy to be developed, learners need to be

encouraged to produce language that is not only understandable but that is also grammatically correct. She argued that while students are producing the language, they might notice some gaps in their production that might interfere with their ability to accurately express themselves. She proposed that these difficulties that they face would probably push them to look for ways to tackle these gaps and so they would start reflecting on their language production. This process leads to the development of learner grammar.

In 1996 Long made some modifications to his interaction theory based on Swain's pushed output approach. He added the importance of negative feedback in the process of negotiation of meaning. He concluded that negative feedback usually drew the attention of the learner to their gaps or loopholes in their L2 knowledge. He also found that this feedback was usually provided during negotiations. That is why he stated that receiving comprehensible input and interactional feedback had a role in facilitating L2 learning. This hypothesis gives a rationale for using pair work and small groups in language classrooms.

2.1.2. Sociocultural approaches to L2 learning

While the previous two theories focused on the importance of interaction and collaboration at the cognitive level, Vygotsky (1981) added a social dimension to the learning process in his sociocultural theory of mind. His theory highlighted the importance of verbal interaction in the process of learning. However, interaction here was viewed more than just an opportunity to give negative feedback or input but rather that the use of language played a role in all aspects of cognitive development, which included language learning. The theory was built upon the notion that all aspect of cognitive development were socially situated as it occurred during the interaction between humans where a more expert participant like an adult or a more knowledgeable peer provided assistance to the less knowledgeable. For this assistance to be

effective, the expert or the more capable individual had to take into consideration the novice's current knowledge and their potential achievable capabilities that require assistance. Vygotsky referred to the distance between both as the Zone of Proximal Development (ZPD). He defined ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or collaboration with peers" (Vygotsky, 1978, p. 86). As it is clear from the definition, the ZPD is a collaborative activity where the role of the expert is to do scaffolding for the novice in order to reach their next potential level.

The sociocultural theory proposed by Vygotsky perceives learning as a social experience. It also gives a motive for using interaction and cooperation within the classroom between an expert like a teacher or a capable peer and the more novice learner. The theory also shows that interaction between learners gives opportunities for language learning through collaborative talk. If collaboration were used in a writing task, peers would work together in order to reach an agreement on how to present their ideas in a text that is jointly produced. This would help them engage in a fruitful collaborative dialogue and thus enhance their metalinguistic knowledge (Camps, Guasch, Milian, & Ribas, 2000) . Camps et al. (2000) also added that collaborative writing ultimately becomes a learning tool as the social interaction that takes place between partners usually provide the framework for exchanging and sharing knowledge which leads to individual reflection.

Overall, this brief overview of second language theories gives strong support for the importance of interacting and engaging in collaborative activities for L2 acquisition. However, it is essential to note that these collaborative tasks need to be meaningful and should encourage the learners to focus on form (Storch, 2013). Collaborative writing tasks fulfill all these requirements

as they involve learners in interactions regarding their writing. Since they produce tangible writing, they are usually forced to focus on form and accuracy. In collaborative writing tasks, learners use L2 to articulate their ideas which ultimately promotes language learning.

2.2 Features of collaborative writing tasks

Collaborative tasks are the tasks that are achieved by students working in pairs or in groups to reach a common learning goal. They are accomplished by group work rather than individual work (Barkley et al., 2014). There are many situations where collaborative tasks can be used in the classroom and writing tasks are no different. Collaborative writing tasks generally refer to the tasks that require learners to work in pairs or small groups and produce one jointly written text (Swain, 2001). These writing tasks are generally composed of two major components, which are verbal interaction and writing. Other scholars gave a more specific overview of collaborative writing. Ede and Lunsford (1990, p. 15), for example, identified a number of features that distinguish collaborative writing tasks. They stated that for collaborative writing to occur, there has to be a great deal of interaction among participants at all stages of the writing process to create a single written document. They also added that this process is characterized by the shared decision making power that all participants possess in the creation of the text produced. Thus, the product of collaborative writing is usually produced in pairs or groups and cannot be easily reduced to an individual's separate input and that is why it is considered jointly owned by all writers who contributed to its production (Storch, 2013, p. 2).

Collaborative writing tasks can be confused with a variety of other similar tasks that are accomplished in groups. Peer editing, in which learners are required to amend a text that they did

not create, should not be considered a collaborative writing task because the individuals did not collaborate to compose the text in the first place. The same is applied to cooperative tasks as they usually refer to the tasks that are accomplished by the division of labor among participants of the group, whereas collaborative tasks involve the mutual engagement of members in the group in a coordinated effort to solve the problem or produce the output together (Roschelle & Teasley as cited in Dillenbourg, Baker, Blaye, & O'Malley, 1995). That is why many researchers mistakenly refer to group work as a collaborative activity because in these activities the responsibilities are often divided among members in the group and then compiled together at the end to give the final product. However, in collaborative writing, the roles are not split up; there is instead a coordinated effort and mutual engagement by all members of the team throughout the composing process. According to Storch (2013) the output of collaborative writing activities is not merely the jointly produced text but also the collective cognition that is reached when two or more people reach insights that neither could have reached alone.

2.2.1. Implementing collaborative writing tasks in the classroom

A variety of ways can be used to implement collaborative writing tasks. Sometimes researchers use the dictogloss technique to implement collaborative writing tasks. In these tasks, a short text is read to the students at normal speed by the teacher. While listening to the text, the students are expected to take notes and write down the familiar words or fragments that they hear. Then the students sit together in small groups and pool their resources to reconstruct their own version of the original text (Wajnryb, 1990). Along these lines, Kuiken and Vedder (2002) used the dictogloss technique to conduct their research on collaborative writing. In their study, they were interested in investigating the strategies that the learners used to reconstruct the original text in a dictogloss task and they were also interested in investigating the extent to which

learners were successful in reconstructing the text. To implement the task the learners were told to listen to a short text and take notes. Then they sat in groups and worked on reconstructing a written version of the original text. The learners were given the instructions that they had to produce a grammatically and lexically correct text that is as complete as they could possibly accomplish. In this experiment, students were not required to stick to a certain length or organization.

Other researchers do not abide by a certain text as a model to conduct the collaborative writing tasks. Rather, they ask the students to produce a complete piece of writing from scratch while working in pairs or groups. Regardless of how the collaborative task is conducted, implementing a successful collaborative writing task can be a complex activity that needs to be actively taught to the students (Bremner, Peirson-Smith, Jones, & Bhatia, 2014). According to Bolton (1999), in collaborative writing (CW) tasks the teacher's role should go beyond just giving the students the opportunity to share and collaborate. The teacher should act as a coach or a facilitator to actively teach teamwork, intervene effectively and consider self and peer evaluation techniques. In these tasks, it is also crucial to make the learners aware of the importance of teamwork to their language learning by critically laying out the importance of working collaboratively and by being prepared with a well-designed assignment that would facilitate illustrating the benefits of working as a team (Fredrick, 2008, p. 446).

2.2.2. Main features of collaborative writing tasks

A successful collaborative writing task should have a number of defining features. According to Yong (2010) the most prominent defining feature of collaborative writing is the social interaction that occurs among members. That is why she stated that it is of utmost

importance that teachers emphasize the importance of students' mutual interaction and take complementary roles while working together on a collaborative task. These collaborative roles should be adapted when planning, generating ideas, providing alternative ideas and also when responding to the others' points of view. She added that they should also be made aware of the importance of listening to each other so that they would be exposed to broader perspectives and ways of thinking. Negotiation is another feature of collaborative writing. While negotiation and interaction are closely related, the term *negotiation* signifies the modification of interaction when participants encounter problems (Yong, 2010). It includes clarification requests and comprehension and confirmation checks. To allow students to benefit from the positive outcomes of negotiation, the teacher should caution students not to be too dictatorial while conducting the CW task as this can negatively affect the process.

During collaborative writing tasks, many learners would resort to using their L1 to compose their L2. Nation (2003) reflected on this point by stating that for many learners the L1 would provide an effective and familiar way of quickly communicating and understanding the content of what needs to be used in their L2. That is why Yong (2010) supported the importance of giving the students the flexibility to use their mother tongue if they felt that it would help them generate ideas for their writing. When students work collaboratively, they also get a chance to share their different experiences. Since each learner is different in terms of their background experiences and knowledge, grouping different learners increases the pool of ideas and provides a greater chance of enhancing the learner's zone of proximal development (Yong, 2010) as learners get a chance to provide scaffolding to one another in the aspects where they have prior knowledge.

Overall, collaborative writing has a number of features that differentiate it from other forms of writing. During these tasks, learners can develop negotiation skills, exchange experiences and reflect on their writing. However, a successful collaborative task needs to be well planned and thought out. It also needs to be carefully introduced to the participants so that they would take it seriously and benefit from the process. The effects and benefits of collaborative writing are discussed in more detail in the next section of the review.

2.3 The effects of collaborative writing tasks on language learning

When investigating collaborative writing tasks, it is important to analyze the effectiveness of these tasks and how they are important for language learning. To do so, it is important to study the effectiveness of collaborative tasks in general and then focus on the effects of collaborative writing tasks in particular. Generally, research has shown that collaborative tasks have a positive impact on the language learning process (Fleming & Alexander, 2001; Gagné & Parks, 2013; Jabbarpoor & Tajeddin, 2013; Kim, 2008; Mahmoud, 2014; Nassaji & Tian, 2010; Saleh et al., 2007). These collaborative tasks have been proven to affect students in a variety of language aspects including vocabulary (Dobao, 2014b; Kim, 2008; Nassaji & Tian, 2010), their verbal interaction (Saleh et al., 2007) and their writing skills (Dobao, 2012; Mahmoud, 2014; Storch, 2005).

This section of the review is divided into two main parts. The first part will briefly reflect on the importance of collaborative tasks in general in the language learning process. The second part will focus specifically on the collaborative writing tasks to identify how collaborative writing tasks provide opportunities for L2 learning.

2. 3.1. Collaborative tasks and language learning

As was mentioned previously, some SLA theories have supported the use of collaborative tasks in the classroom. It was shown that these tasks promote language learning and acquisition. To further investigate the effect of collaborative tasks on language learning, some studies have looked into the effect of collaborative learning on students' verbal interaction (Chizhik, 1998; Saleh et al., 2007; Webb, 1985). Researchers have investigated the role of collaborative tasks in enhancing learners' verbal interaction, especially with younger learners. In Saleh et al.'s (2007) study, which was conducted with 164 grade four boys, the researchers were interested in investigating the effect of collaborative tasks on students verbal interaction skills in a biology classroom. The groups of students were divided into groups of four male students each. The findings of the study showed that collaborative tasks enhance students' verbal interaction which in turn promotes the whole learning process. This, however, was not the case in the study conducted by Nassaji & Jun Tian (2010) which was conducted with low-intermediate adult ESL students in Canada. It was observed in this study that although there was some verbal interaction among adult learners, there were instances when the interactions were limited and brief. So this in turn suggests that the interactions between adult learners might not be rich enough to promote a fruitful verbal interaction like that conducted between younger learners.

Collaborative tasks also have an effect on the learners' pool of vocabulary (Dobao, 2014b; Fleming & Alexander, 2001; Kim, 2008). These tasks encourage learners to discuss the vocabulary they are using, and collaborate in any vocabulary related problems by suggesting some words to the whole group (Dobao, 2014b). In the study conducted by Kim (2008) on 32 learners enrolled in a preparatory Korean language program, the researcher wanted to investigate whether collaborative tasks were more effective in promoting L2 vocabulary versus individual

tasks. The participants were divided into two groups: a collaborative group and an individual group in order to compare the effect of the treatment. They were given a listening task which had a number of new vocabulary words that they had to finish in their pair groups or individually. When students individually took their final vocabulary test, it was evident that the collaborative task did promote greater vocabulary learning versus the individual task. The study showed that learners working collaboratively were exposed to twice as many lexical items compared to learners who worked individually. This suggested that collaborative tasks were more useful for L2 acquisition of vocabulary than individual tasks and that is why learners working collaboratively usually did better in vocabulary tests.

In Fleming and Alexander's (2001) research, it was shown that groups working on collaborative tasks outperformed those working individually in their use of metacognitive understanding of the strategy chosen and the recall gain. The study also illustrated that the benefits of the collaborative tasks were sustained over a relatively long period of time. To conduct this study, the researchers investigated 31 grade four students from two public schools in Sydney, Australia. The children were observed in three different phases during the experiment and all instances were videotaped. In the first phase, a pre-test was conducted to gather information about students' current knowledge. Then in phase two, the students were given ten minutes to memorize a number of vocabulary words written on a set of cards. They were divided into two main groups, a control group that worked individually and an experimental group that worked on learning the vocabulary in pairs. After the task the students individually took two post-tests, one was immediately after the activity and the other was five and a half weeks later. The findings of the study showed that individuals who worked in pairs were able to recall more

vocabulary items than those who worked individually. It also suggested that the benefits gained from strategy use and recall in group work can be retained over a relatively long period of time.

On the other hand, not all researchers agreed that collaborative tasks did promote language learning. In Nassaji and Tian's (2010) study, they investigated whether performing tasks collaboratively led to greater gains of vocabulary knowledge specifically phrasal verbs than performing the tasks individually. Their study involved a pre-test, a treatment and a four-day delayed post-test over a two-week period. When the pre-test and post-test scores of both groups were compared, no significant difference was found between both groups in their acquisition of phrasal verbs. That is why the researchers assumed that collaborative tasks had little effect on the overall learning of vocabulary and phrasal verbs if compared to individual tasks.

Many factors might have affected the discrepancy between the findings of these three studies. The fact that the first two were interested in comparing the acquisition of vocabulary in general while the latter was comparing a specific and small aspect of vocabulary which is phrasal verbs might have affected the finding. Also, the time allocated to each might have been an affecting variable as the first study was conducted over a three-week period while the last one was conducted over a two-week period. This might have given a bigger opportunity for the participants of the first two studies to acquire the vocabulary more effectively than the participants of the last study.

According to Gagné and Parks' (2013) study, collaborative tasks can also help learners in providing scaffolding to their peers and this helped them develop strategies associated with negotiation of meaning within an interactive perspective. This study aimed to investigate how grade six children in an intensive elementary level English course provided scaffolding to each

other while conducting a collaborative task. The learners were divided into groups of four and they were asked to conduct a set of activities as a group. The findings showed that during the task the learners carried out a total of 217 scaffolding strategies to complete the tasks. The most common of these strategies were error correction and requests for assistance.

2. 3.2. Collaborative writing tasks and language learning

The previous section highlighted the major benefits of collaborative tasks inside the classroom. These benefits included enhancing verbal interaction (Saleh et al., 2007), vocabulary acquisition (Dobao, 2014b; Fleming & Alexander, 2001; Kim, 2008), and developing scaffolding strategies (Gagné & Parks, 2013). Various studies have investigated the nature and benefits of collaborative writing tasks in particular (Abadikhah, 2012; Mahmoud, 2014; Ohta, 2000; Shehadeh, 2011; Storch & Wigglesworth, 2007; Yang, Badger, & Yu, 2006). It was shown that the feedback provided by group members to one another in collaborative writing activities has a number of features that make it valuable for second language learning (Storch, 2013). First of all, it is provided in a timely manner, as learners get immediate feedback if compared to teacher or peer feedback, which is usually taken after the writing of the whole text is complete. It is also usually more likely to be accepted and incorporated into students' writing more than peer feedback. This is due to the fact that during peer feedback, learners are sometimes reluctant to provide corrective feedback or to question the feedback given and so they do not always take up the feedback provided to them (Yang et al., 2006). Also learners usually lack ownership of the writing when they are providing peer feedback in contrast to when they are conducting the writing collaboratively. The feedback that is provided during collaborative writing is important as it can also provide learners with assistance through scaffolding (Ohta, 2000). According to Mahmoud's (2014) study, collaborative writing tasks give students more opportunities to

encourage, support and give feedback to each other. It also helps create a more comfortable, fun and interesting learning environment where students can exchange and share thoughts and ideas to achieve the purpose intended.

Collaborative writing tasks provide learners with the opportunity to use the target language for a number of functions to communicate their ideas. A study conducted with advanced ESL learners explored how learners used the L2 in their collaborative writing tasks (Storch & Wigglesworth, 2007). Results showed that learners provided one another with suggestions and counter-suggestions to help them create sentences in their writing. In addition, group members explained their choices and corrected grammatical mistakes of other members in the group. In another study conducted by Abadikhah (2012), the researcher investigated whether learners working with meaningful output activities (i.e. writing tasks) made more progress than those working with mechanical tasks (i.e. grammatical drills). The participants in the study were 36 low-intermediate female students whose ages ranged from 15 to 28. They were enrolled in an intensive English program in Tehran. The study was conducted over an eight-week period and included a pre-test, three treatment sessions and a post-test. The study found that meaning-focused writing tasks generated longer discussions and promoted more language use.

These results lend support to the claim that collaborative writing activities provide learners with the opportunities to extend their L2 usage. It gives learners a genuine and meaningful purpose to communicate. Research in this area also showed that when learners co-author with their partners, they discuss a number of issues such as grammatical forms, word choice, cohesion and orthography (Storch, 2013). These collaborative tasks also promote the use of scaffolding by group members to help one another reach an unattainable level had they worked on their own,

thus collaborative writing tasks may be more beneficial to language learning if compared to individual writing.

2.4 Individual versus collaborative writing

A number of studies have investigated the features of collaborative writing tasks and their potential by comparing the text produced by individual writers to the text produced collaboratively. In Storch's (2005) study, the researcher made this comparison in an ESL writing class offered for credit in an Australian university. In the writing task, the students were given a graphic prompt and asked to compose a short one- or two-paragraph text. They were given the choice to work in pairs or individually and the researcher collected their texts after they finished and compared the text produced in pairs with that produced individually. The texts of both groups were analyzed for fluency, accuracy and complexity. During the writing process, it was clear that individual writers took only 10-15 minutes to complete that task which is substantially less than the time pairs needed to complete the task, as they needed 22 minutes. Also, the analysis of both texts showed that the texts composed by pairs were much shorter than those composed individually. However, when it came to accuracy and complexity, the findings of the study showed that text produced in pairs seemed to be better in terms of grammar and structure and overall it had more linguistic accuracy. Pairs had a tendency to write sentences that were more complex and their writing contained clear 'highlighting statements'. This study suggested that groups seemed to accomplish the task more successfully when they composed it with a partner.

Most of the studies that compared collaborative writing to individual writing focused on investigating whether writing collaboratively gave a more accurate text or not. Some explored

how the grammar and structure differed in both cases (Jabbarpoor & Tajeddin, 2013; Nassaji & Tian, 2010; Storch, 2005); others looked at how collaborative writing affected the accuracy of the text (Malmqvist, 2005). Other studies investigated the mistakes that learners made (Mahmoud, 2014) while others examined the meaning-focused writing tasks (Dobao, 2012; Storch, 2005; Storch & Wigglesworth, 2007).

A study conducted on low intermediate adult ESL learners in a university in Canada compared individual and collaborative written texts (Nassaji & Tian, 2010). As was explained in the previous section of the review, they were interested in investigating if collaborative tasks had an effect on the acquisition of phrasal verbs. To conduct the study they had a pre-test and a post-test that tested their acquisition of phrasal verbs. The findings of the study showed that even though the quality of the texts that was created by a group of students working collaboratively was significantly better than the text produced by one individual, there was no significant effect on the long-term acquisition of phrasal verbs.

Malmqvist's (2005) study which was administered to L3 learners of German and divided into three main stages, showed the positive effect of collaboration on writing accuracy. In the first stage students were required to write individually then collaboratively in groups of three in the second stage and in the final stage to write individually again. The observer found that even though individual texts had some fragments and incomplete sentences, all sentences written collaboratively were full complete sentences. Another observation was found in the format of the sentences written collaboratively as they had a tendency to be longer and have more lexical complexity versus sentences written individually. Collaboratively written sentences also showed more variety of clauses and subordinate clauses. Unlike previous studies, Malmqvist did not

observe a difference in the time needed to complete both tasks so he assumed that the results had nothing to do with time allocation.

One of the few studies that looked into how collaborative writing affected the production of individual writers was Shehadeh's (2011). In this study, which was conducted with 38 first year university students in The United Arab Emirates (UAE), the researcher explored the effectiveness of collaborative writing by conducting a pre-test and a post-test and having a treatment stage where collaborative writing was practiced. The duration of the study lasted for 16 weeks and its results showed that collaborative writing had a significant effect on learners' content, organization and vocabulary.

Other studies investigated the number of participants in a group as a variable that affected the final output. Since there is a shared belief among students and teachers alike that pair work is better than group work as it gives individuals more opportunity for participation in the task and that group work is less helpful than pair work (Dobao & Blum, 2013), researchers were interested to investigate the truth of this belief. This belief was supported in Dobao's (2014b) research where she stated that when pair and group work were analyzed, it was noticed that pair work gave more opportunities for individual participation and that the grammatical problems encountered and discussed were a lot less in group work. In many instances, some of the learners stayed silent while the rest of the team talked. Although in her research Dobao argued that the lack of contribution did not necessarily mean a lack of participation by stating that the silent observers might be actively engaged while listening and observing, still not enough evidence was given to support that claim.

On the other hand, due to their strong belief in the importance of collaborative tasks, (Gagné & Parks, 2016) (2016) proposed some solutions to ensure equal participations of members in the group. In their study, they proposed that members of the group should participate in group discussion by taking turns rather than by randomly talking. This technique proved to facilitate group work as it ensured that all members of the team were equally involved (Gagné & Parks, 2016; Saleh et al., 2007). However, it did have its shortcomings, as it inhibited spontaneous participation that could make the discussion more fruitful. Saleh et al. (2007) gave another suggestion by proposing that roles should be assigned to every member in the team and that every member would have to contribute in the task to complete it.

Nevertheless, many studies have supported the importance of group work versus pair work. It was observed that learners who worked in groups of four offered more language related episodes than those given by pairs and so those who worked in groups did produce significantly more accurate written production versus their colleagues who worked in pairs (Dobao, 2014a). Their accurate output came in the form of more linguistic accuracy as well as a success in solving language related problems (Dobao, 2012). It was also noticed that group work gave more room for different members to share their knowledge and to collaborate to solve different problems (Dobao, 2012). Although it was observed that pair interaction did give more individual participation, learners who worked in small groups were able to benefit from the larger pool of vocabulary and linguistic resources (Dobao, 2014b). Moreover, the students who actually had the opportunity to participate in group work did not perceive this point to be a problem in small group tasks (Dobao & Blum, 2013).

The question of whether the production of more accurate texts in group writing means that the learners have actually acquired this vocabulary or grammatical structure or not is still valid.

Even the few studies that looked into the production of individual writers like Shehadeh's (2011) study had their limitations which included a small sample number and also these studies were conducted with a certain age group who had a certain proficiency level so they cannot be generalized to all other collaborative writing contexts. That is why while researchers have identified how the product of collaborative writing is better than that of individual writing, further research is still needed to identify the actual long-term benefits of collaborative writing tasks on the individuals' writing performance and language acquisition in different learning contexts.

2.5 Learners' attitudes towards collaborative writing

For the collaborative writing task to be properly administered, learners' attitudes towards this type of task need to be investigated. Do they actually understand the benefits of these tasks or do they identify them as worthless activities that are conducted to pass class time? Do they enjoy these types of activities or would they rather utilize class time doing other sorts of activities? To answer these questions a brief review of the literature regarding this topic will be analyzed in the following section.

Most studies found that learners usually had a positive attitude towards collaborative tasks (Dobao & Blum, 2013; Farzaneh & Nejadansari, 2014; Ghaith, 2001; Limbu & Markauskaite, 2015; Mahmoud, 2014; Shehadeh, 2011; Storch, 2005). In Mahmoud's (2014) study, learners had a positive attitude towards cooperative learning where they thought that this task helped develop their general language skills and in particular their writing skills. In Louth, McAllister, and McAllister's (1993) study which was one of the earliest studies to investigate the attitude of learners towards collaborative tasks, students showed a positive attitude towards collaborative

writing tasks. Some students added that they learned a lot about gathering ideas through the task. In another study conducted by Shehadeh (2011), the learners reflected on how collaborative tasks helped them generate ideas, group them together, plan the writing and provide feedback to one another. They also added that these tasks went beyond language accuracy to include organization and content. Other learners also pointed out other positive sides of these types of tasks as they stated that they gave them more confidence to solve problems and to enjoy the whole learning process (Farzaneh & Nejadansari, 2014). Farzaneh and Nejadansari's (2014) research suggested that this positive attitude may even positively change the learners' attitude towards the whole concept of language learning in general.

Despite this positive attitude towards collaborative tasks, generally learners had some concerns regarding this type of task. For example, high achievers perceived that they were the ones doing most of the work while the low achievers had little contribution to the task (Ghaith, 2001). Moreover, many learners could not see a positive impact of the collaborative tasks on their overall linguistic accuracy or on their individual L2 performance (Dobao & Blum, 2013). This could be due to the fact that many learners found collaborative tasks new and strange to them and they were not accustomed to it in their previous learning and educational context so they didn't really know what to expect or how it would benefit them (Shehadeh, 2011). In Limbu & Markauskaite's (2015) study, which was conducted in Australia, it was clear that the majority of learners who were familiar with collaborative work were individuals who had at least six years of work experience. This was an interesting finding as it might be applicable only in a certain culture like that of Australia. According to Nelson and Carson's (2006) study the attitude of learners towards peer work or collaboration varies depending on their cultural background. That is why it is debatable whether this finding would be the same in another culture like the

Egyptian culture where individuals are rarely trained to work collaboratively neither in the educational context nor in the work environment. On the contrary, in Egypt, individualism is usually very high and group participants are never really exposed to working collaboratively or trained to share ideas with their colleagues.

Even though a number of students end up with a positive attitude towards collaborative writing tasks, not many of them are willing to write collaboratively at the outset. Many students prefer to do the writing tasks individually rather than collaboratively. According to Storch (2013) usually between a quarter to a third of the individuals in the classes she asked had a preference to write individually rather than collaboratively. Since this percentage is likely to increase in a culture like the Egyptian culture where individuals are usually not trained to work collaboratively in their learning or work environments, it is essential that they are introduced properly to the task and made aware of its benefits before administering the task

2.6 Conclusion

This review has identified what collaborative writing tasks are, the theoretical support for conducting these tasks in the classrooms and investigated the attitude of students towards these tasks. Even though most of the research done on collaborative writing tasks has highlighted the positive correlation between the quality of the text written and the number of participants in the writing, it is still not clear how individuals benefit on the long-term from writing collaboratively. Yes, research has given evidence that when more than one individual collaborate to create a written text, they produce a text that is of more accuracy and quality; however, the effect of this task on individual performance still needs further investigation. The question of whether the

collaborative writing would affect the learners overall writing quality needs to be explored as well as which writing features are specifically impacted by this CW task.

Chapter 3: Methodology

The study looked into the effect of collaborative writing tasks on an individual's writing performance. It also investigated the specific writing features that are affected by the CW tasks. This chapter outlines and summarizes the methodology used to conduct this research. First, the research design is presented. Then the data collection procedures are displayed which include the participants, the instruments and the procedures. In the next section, the piloting studies are discussed to show how the researcher benefited from them in her actual study. The final section of the methodology presents the details of the data analysis procedures.

3.1 The research design

This present study was a quantitative study that used some quantitative approaches. The quantitative method was applied by comparing the scores of the participants' writing samples from a pre-test and a post-test. On the other hand, the qualitative technique was presented in the content analysis that the researcher conducted on the writing samples. This study was primarily descriptive in nature as it sought to investigate the effectiveness of using collaborative writing tasks in the classroom. To answer both research questions, a variety of research tools were used which included the use of textual analysis and content analysis of writing samples.

3.2 Data collection procedures

3.2.1 Participants

The sample was comprised of adult ESL students studying General English courses at the School of Continuing Education (SCE) at the American University in Cairo (AUC). Since the researcher was at that time an ESL instructor at the institute, it was considered a convenience

sample as the participants in the study were her current students. The ages of participants ranged between 18-45 years. Both male and female participants were included in the sample. The participants in this study were boarder line A2/ B1 ESL learners on the CEFR scale based on the institute's placement exam. All the participants in this study were Egyptian learners who come from different educational backgrounds and different social statuses. This meant that they were native speakers of Egyptian Arabic. The total number of participants in the study was originally 80 students; however, some participants were excluded because they did not attend all treatment sessions or missed one of the pre-test or post-test. This reduced the actual number of participants that were investigated to 61, all of whom were ensured confidentiality by signing the IRB consent form. The IRB approval for this study was obtained on the 12th of June 2016 as displayed in Appendix D.

3.2.2 Instruments

3.2.2.1 Textual analysis

To evaluate the effectiveness of collaborative tasks on an individual's writing performance, an analysis of the students' writing samples was conducted based on an analytical scoring rubric. As a first step, all students' writing samples including the pre-test and post-test writings of both experimental and control groups were scored by three raters to ensure both intera and inter rater reliability of the scores. The raters were masters' degree students and graduates at the TESOL program at AUC who have had different rating experiences. The researcher found it difficult to find one rater to score 120 writing samples and so she had to divide the samples equally and systematically across a number of raters. This division was done so that each rater would take the writings of 10 individuals from the control group, including the pre-test and post-test for the same individuals, and the writing of 10 individuals from the experimental group also including

the pre-test and post-test for the same individuals. This division resulted at the end in having each rater score a total of 40 writing samples and every writing sample was to be scored by three different raters.

To promote inter-rater reliability and to ensure a consistent rating criteria, the researcher sat with each rater and walked them through the rubric and what they were required to do. The reason why three raters were asked to score every writing sample was to ensure accuracy of results. By having three raters it was easier to overcome inconsistency of scores. If there were a discrepancy of more than one mark between two raters the third rater's scoring would determine which of the two scores is more likely to be accurate. As for the intra-rater reliability the researcher made sure that each rater received the pre-test and post-test writings for the same students both in the experimental and control groups. Raters were also given the same number of writing samples from both experimental and control groups.

The raters used an analytic scoring rubric adapted from a writing rubric that was originally developed by Jacobs, Zinkgraf, Wormuth, Hartfiel, & Hughey (1981) and adapted by Hedgcock and Lefkowitz (1992) and by Shehadeh (2011) (Appendix A). The rubric defined the following five features, as explained by Shehadeh (2011).

1. Content: knowledge of subject; development of thesis; coverage of topic; relevance of details; substance; quantity of details.
2. Organization: fluency of expression; clarity in the statement of ideas; support; organization of ideas; sequencing and development of ideas.
3. Grammar: use of sentence structures and constructions; accuracy and correctness in the use of agreement, number, tense, word order, articles, pronouns, prepositions, negation.

4. Vocabulary: range; accuracy of word/idiom choice; mastery of word forms; appropriateness of register; effectiveness in the transmission of meaning.
5. Mechanics of writing: conventions of spelling, punctuation, capitalization, paragraph indentation, etc.

Each feature on the scale was scored on a range from excellent to very good, good to average, fair to poor, and very poor. The researcher decided to use an analytical rubric to give separate scores for different writing features. Some changes were applied to the rubric to facilitate its usage for scoring. While the original rubric rated the different features on a 0-100 point scale and gave a big range for every choice, this adapted rubric assign only one point per choice with an option to give a 0.5 between two scores so that each feature would be rated on a scale from 1-4 as displayed in Appendix A.

After rating the writing samples of the two groups, the experimental and control, the final writing scores of both groups were compared to analyze whether the overall writing quality was affected by the collaborative task variable. In addition, the specific writing features that the rubric was built upon like organization and content will be compared individually to explore if any of these features were significantly affected by the use of collaborative writing tasks.

3.2.2.2 Content analysis

Besides the scoring of the writing samples, the researcher conducted a content analysis for these samples. In this analysis, the researcher explored these specific writing features, which are fluency and organizational patterns. Here the specific patterns that collaborative writers used were investigated to identify the effect of collaborative writing. To investigate fluency, the pre-test and post-test for both groups were compared in terms of fluency. The patterns used to create

paragraphs were also investigated to identify whether CW tasks affected this feature in terms of number of paragraphs used, format of these paragraphs and whether each tackled a different or similar ideas.

Finally, to explore the organization patterns used in the writing, only 20 post-test samples, 10 from each group, were analyzed. By narrowing the scope of papers, it was easy to do an in-depth textual analysis for the varieties of organization patterns that were used. The present study applied two types of analysis adapted from Hirose's study (2003). The first explored the location of main ideas while the second investigated the presence or absence of a summary statement. The original study had a third type of analysis which looked into the macro-level rhetorical pattern but the researcher decided to discard this type from the study because the students' level was not strong enough to convey a unique voice.

Since participants in the present study were asked to show their stance of whether they preferred using cash or credit card as displayed in Appendix C, they were expected to write an opinion-stating sentence. Here the location of this opinion-stating sentence was explored and it was identified to be in one of these four locations: *Initial* or displayed in the introduction, *Middle* displayed in mid writing, *Final* only stated in the conclusion of final statements or *Obscure* meaning not clearly stated.

The second aspect that was explored was the presence or absence of a summary statement and it was coded as one of the following three as explained by Hirose (2003):

1. The writer's opinion on the topic is re-presented or what was discussed in the text is summarized
2. Neither opinion nor summary is presented

3. The writer's only statement of opinion is located at the end of the essay.

3.2.3 Procedures

3.2.3.1 Implementing the collaborative writing task

To implement the collaborative writing task the teacher had to carefully introduce the concept to the learners so that they would be willing to undertake this new experience. According to Fredrik (2008) learners have to be made aware of the importance of working collaboratively and of how it would be beneficial to their overall language learning. After introducing the concept of collaborative writing, the teacher divided the participants in the class into groups of three or four students and gave them a writing prompt that they were required to accomplish in 45 minutes. To accomplish the task, the teacher first gave them a speaking activity that they did before the task and it served as a brainstorming stage for ideas as they were encouraged to write their ideas in bullet points. Then the students started collaboratively implementing the writing task. To ensure maximum involvement of all group members in the task, the researcher asked different individuals to write different paragraphs in the writing. In most cases, the teacher would ask the least involved student to start writing for the whole group once the brainstorming activity was over. This collaborative writing gave them a chance to correct each other's grammar, spelling, and language, among other things.

Before administering the collaborative writing task, the teacher had to emphasize the importance of the students' mutual interaction and of taking complementary roles while conducting the collaborative task. The teacher was also responsible for cautioning students against being dictatorial while conducting the task as it can negatively affect the process (Yong,

2010). Furthermore, as was stated in Nation's (2003) study, learners sometimes use their L1 to provide an effective and familiar way of quickly communicating and understanding the content of what needs to be used in their L2. That it is why the teacher allowed for the utilization of the L1 in the CW task if it served this purpose.

3.2.3.2. The writing prompts

To implement the collaborative writing activity, the students were given a different writing prompt for each of the collaborative writing sessions (Appendix B). The researcher had to abide by the content that was being covered in the learners' book and instructional material. Since the learners will be required to cover three units during the course of the research, the three writing prompts were taken from the units' themes. Each collaborative task was accomplished at the end of the unit. This meant that students completed the CW tasks in sessions four, eight and eleven. For the first two tasks, the teacher displayed on a powerpoint slide the writing the prompt that was already written in their books. The book's prompts were used for two main reasons. The first reason was observed during the piloting study. It was noticed that when these same prompts were given to students in the piloting sessions, the prompts were found to be very engaging to group members so it seemed to be a good idea to keep using them since they were already piloted with no perceived problems. The second reason goes back to the idea of convincing the learners of the CW task. According to the researcher's own personal experience, learners might be more willing to engage in the collaborative task if they felt that they were required to do it one way or another because it was already mentioned in their book. However, if they were given a completely new prompt and asked to write about it, they might not have been that enthusiastic to engage in the task.

The researcher however gave the learners a different prompt than the one written in the book for the third writing task. This is because the third task asked them to give their own personal opinion about art which might not be the best prompt for a collaborative activity since each member in the group would probably have a different point of view. That is why the assigned prompt changed to address more general topics related to art, which is the unit's theme, rather than asking the learners to write opinion essays.

For the pre-test and post-test writing prompts, the researcher relied on the previously created prompts (Appendix C) that the students were required to take anyway in their first quiz and on the final exam. As a result of course regulations, the learners were expected to take the pre-test in the third session and the post-test in the twelfth session. The prompts were also based on the units' themes but they were different from the ones assigned to them in the collaborative tasks.

3.2.3.3. Study procedures

The researcher started the study by dividing the participants into two groups, an experimental group and a control group. Since the researcher had access to different classes, each class was classified into either category being experimental or a control. In addition, the number of students per class ranged from 14 to 17 students so researcher had to conduct the experiment with six different classes that were of the same level, three of which were experimental and the other three were the control group. The researcher also had to exclude some people from either group if they did not attend all three sessions of the experiment or were absent during either the pre-test or post-test. This left about thirty participants per group. Both members of the two groups took a pre-test and post-test where they were given an individual writing task. The period between both tests was considered the treatment stage where the experimental group was given

three tasks to write collaboratively in class in groups of three or four on three different sessions. The treatment stage typically lasted for four weeks and the learners were assigned the writing tasks on sessions four, eight and eleven during a twelve-session ESL course. Before they were assigned the collaborative writing task, the researcher thoroughly explained how the collaborative writing tasks were achieved and what were the benefits of these tasks for the students' language learning. This paved the way to ensure the students' willingness to participate in these tasks which might have been a challenge in a context like an Egyptian context as mentioned in Nelson and Carson's (2006) study where they highlighted how different cultures can differ in the way they perceive collaborative work.

During the treatment stage, the control group were not given collaborative writing tasks but they were asked to write these same tasks individually. The whole duration of the experiment took about five weeks between the pre-test and the post-test stages.

3.3 Pilot studies

The study instruments were piloted prior to starting the collection of the actual operational data. Two pilot studies were conducted the first took place in the first half of the spring 2016 semester while the other took place in the second half of the spring 2016 semester. In each one of these piloting studies, the researcher was teaching three classes of the same level, two of which were classified into experimental groups while one was the control. The participants in the piloting studies were the same level as the participants in the actual experiment which helped the researcher prepare for the experiment and overcome many of the anticipated problems.

3.3.1 Pilot study (1)

In this study there was still no clear outline for the procedures expected for the experiment. The sample consisted of about 35 participants but what was really striking about this experiment was the learners' unwillingness to participate in collaborative writing activities. When they were asked to write collaboratively many students preferred to finish the writing individually and deviated away from the group while others regarded the activity as a waste of time and found other interests to pass the time of the class. This was due to the fact that the students were not given a proper introduction for the importance of collaborative writing. They were not fully aware of what they were supposed to do or how this would be helpful to their overall learning. This lack of knowledge was advised against in Fredrik's (2008) study where she stated the importance of making students aware of the importance of working collaboratively.

Another reason that might have triggered the need for another piloting study was the timing of the task administration. In this study the learners were asked to do the collaborative writing task at the very end of a two and a half hour session so they were already exhausted and expecting a light activity at the end of the session. In addition, not enough time was allocated to the writing activities so even the groups who were willing to write collaboratively did not have enough time to brainstorm ideas and write effectively. Due to all these problems and complications in the piloting study the researcher decided to do another one that would attempt to bypass these previous shortcomings and explore a bit the learners' perceptions towards collaborative writing to identify if there were any other considerations that needed to be included or excluded in the actual study.

3.3.2 Pilot study (2)

With a clearer image of the procedures expected and the research questions that needed answering, the researcher began the second piloting study. In this study the learners were

properly introduced to the idea of collaborative writing and they were made aware of its benefits. They were also told what to expect in the course of the term and how many collaborative writing tasks they were to write. In this piloting study and similar to the actual study, sufficient time was provided for the learners to brainstorm ideas and write down their thoughts. The writing task was also requested of students in the first half of the class time so they were still active and not exhausted.

With these slight changes in the procedures, the attitude of students changed completely. They became more engaged in the tasks and more eager to produce the best writing samples and on correcting their mistakes. For the piloting study, the participants received an attitudinal questionnaire to guide the researcher in understanding the participants' attitude and to decide if anything needed changing in the actual study. The attitudinal survey investigated the reaction of students towards collaborative writing. It reflected on their perceived learning benefits that they got out of collaborative writing and it also investigated whether gender had an effect in shaping the students' attitude. Overall, it was observed that the students had a positive attitude towards collaborative writing and most of them found CW helpful for their L2 learning as most gave a positive answer to questions in the questionnaire. Table 1 displays the mean and standard deviation that 17 students gave for some quantitative items in the questionnaire. It can be observed from these numbers that most students found that discussing their writing with others was useful.

This questionnaire was given to determine their attitude and the perceived benefits of collaborative tasks. Unlike Dobao and Blum's (2013) study which found that most learners had a positive attitude towards collaborative writing but had doubts about the actual benefits of these tasks, the results of this piloting study indicated that learners found a positive impact for these

CW on their overall language learning. It was indicated that they perceived some improvement in vocabulary, organization and grammar as well as on their overall writing quality. The mean of the perceived benefits exceeded four on the 5-point Likert scale while the mean for their attitude and how much they enjoyed the task was 3.63. In Dobao and Blum's (2013) study, a substantial number of students did not see a noticeable positive impact of CW on vocabulary acquisition and

Table 1. Means and Standard Deviations for Answers of Questionnaire Items

	<i>M</i>	<i>SD</i>
1. I like working in groups during class	4.23	0.18
2. I feel that working in groups while <u>writing</u> is enjoyable	3.63	0.22
3. I feel this course has improved my writing	4.18	0.18
4. I think that writing in groups improved my vocabulary	4.12	0.22
5. I think that writing in groups improved my organization	3.94	0.27
6. I think that writing in groups improved my grammar	3.94	0.19
7. The content of the writing was better because I wrote it with a group	3.81	0.23
8. Because of this class, I have changed the way I write	3.59	0.21
9. Discussing my writing with others is useful	4.41	0.17
10. I would like to write in groups in the next course as well	3.88	0.25
11. Overall I don't think that the collaborative writing was beneficial for me	2	0.22

this was not the case in the present study as the mean for this item was 4.18 indicating that most of them either agreed or strongly agreed that their vocabulary was positively affected by the task.

Many students gave an insightful qualitative input on their collaborative writing experience in the questionnaire. A number of these comments showed a positive attitude as some participants indicated that these collaborative writing tasks improved their listening, speaking

and presentation skills as well as their writing skills. Others commented on how these activities made them acquainted with their classmates, which gave them insight onto how others write and think about writing so that they could learn from one another. Some commented on how these activities encouraged them to listen to one another and share different opinions, which was essential in improving their communication skills. A group commented as well on the competitive aspect that was added to the task when it was accomplished in groups as it gave members of different groups an encouragement and a push to excel.

Despite all the positive comments that the participants gave on collaborative writing, some still had their reservations. A few said that they preferred to accomplish the writing individually because everyone had a different and special way of writing and that in groups not all members had a chance to express their opinions all the time. Some suggested that the number of participants in the groups should be reduced to three or two to give members a bigger chance to participate. It was mentioned as well that some learners only sat silently and observed and made little contribution to the task while the rest of their teammates did all the work. This finding was similar to that found in previous research. However, this case was argued against in Dobao's (2014b) study where she stated that lack of contribution did not necessarily mean a lack of participation, she also argued that in many cases silent observers might be actively engaged while listening and observing. Other learners stated that they felt more comfortable in accomplishing the task individually because that would give them time to think and reflect on what they were writing. Some learners indicated that they would have preferred to write individually so that the teacher would provide them with their own customized individual feedback so that they would be able to evaluate their own weaknesses.

Since this was a piloting study, the researcher was interested more with the negative feedback that the participants provided to work on overcoming the weaknesses for the actual experiment. Because of the feedback, the number of participants in each group was reduced to three or four participants at most in the actual study. The feedback also alerted the researcher to the importance of careful group monitoring to determine who was not participating and who was. By this careful monitoring, the researcher would assign the role of the scribe to the member who participated the least in the actual study to ensure that all members of the team were actively participating.

In the piloting study gender was also one of the investigated variables. The questionnaire included a number of questions that explored the gender's effect on the attitude of students. One surprising finding was that most learners preferred to work in a group of the opposite sex or in a mixed gender group. This finding was surprising because in most classes individuals resorted to sitting down with individuals of the same gender. Table 2 displays the means given on each of the questions on whether participants preferred to work in groups of the same or mixed gender. Even though the findings were for a small sample, there was a tendency for participants to prefer working with members of the opposite sex. This finding facilitated the process of group division for the actual experiment, as the researcher was not restricted on putting individuals of the same gender in one group but rather promoted the usage of mixed gender groups throughout the experiment.

Table 2. Means and Standard Deviations for Answers of Difference Questionnaire Items (regarding gender)

	<i>M</i>	<i>SD</i>
1. I prefer to finish the writing individually	3.13	0.34
2. I would have preferred to work in a group of my same gender	2.88	0.28
3. I would have preferred to work in a mixed gender group	3.5	0.18

The second piloting study was very helpful in forming a clear image of how the actual experiment was to be conducted. Unlike the first piloting study, this one was an exact mirror for the actual experiment. Even though the number of participants in this study was only 17, the attitudinal questionnaire highlighted some of the important aspects that needed to be taken into consideration for the actual experiment. It also guided the researcher in deciding how much time each writing task should be assigned and the proper manner in which to administer the task. The piloting study also directed the researcher towards the best group formations including the number of participants per group and the gender choice of members per group. Finally, it helped the researcher in overcoming the problem of unequal participation of group members by alerting the researcher to the importance of assigning tasks to different group members.

3.4 Data Analysis Techniques

In order to answer the first research question concerning the effectiveness of using collaborative writing tasks, the researcher compared the scores collected in the post-test by both the control and experimental groups using a T-test. She attempted to see how significant the collaborative task affected the quality of learners' individual writing. To do this the pre-test and post-test scores were compared to identify the level of participants before the task and see the

percentage of improvement that resulted from the CW task. The individual scores assigned to different writing features were also compared to identify whether CW had an effect on specific features like content or organization. To conduct this analysis, inferential statistics was used to determine how significant the results were.

To answer the second research question, qualitative and quantitative data analysis were conducted to explore the specific writing features that were affected by the collaborative writing task. To explore how fluency was affected, the length of the text written by both groups was compared to see if there was any significant difference. To compare organization patterns, the texts were analyzed qualitatively to identify how individuals in both groups formulated their introduction and their conclusion.

Chapter 4: Results

This chapter reports the results and findings of the present study that investigated the effect of collaborative writing on an individual's writing performance. For the analysis, both descriptive and inferential statistics were used to reach a thorough understanding of the data and be able to draw a conclusion based on them. The data was collected during normal classes and constituted of a total of 61 participants, of whom 30 were in the control group and 31 in the experimental group. The chapter is divided into 2 major sections each addressing one of the research questions posed in the present study.

4.1 The effect of collaborative writing on the quality of students' individual writing

In order to reach the final scores, an average of the scores assigned by the raters was calculated for each writing sample. If the scores assigned by the two raters had a discrepancy of more than one mark, the third rater's score was considered to settle the discrepancy. Each writing feature was scored out of four marks according to the rubric and raters had the option to give a grade of 0.5 if they felt that the score was between two items in the rubric. Prior to analyzing the data using inferential statistics, a summary of the raw scores of each group were presented using descriptive statistics to compare the scores of experimental and control groups. Tables 3 and 4 show the mean and standard deviation for the pre-test for both experimental and control groups.

Table 3. Mean for Experimental and Control groups pre-test

	Content	Organization	Grammar	Vocabulary	Mechanics	Total
Experimental	2.815	2.742	2.863	2.766	2.702	13.887
Control	2.633	2.592	2.675	2.658	2.567	13.125

Table 4. Standard deviation for Experimental and Control groups pre-test

	Content	Organization	Grammar	Vocabulary	Mechanics	Total
Experimental	0.616	0.634	0.651	0.632	0.699	2.719
Control	0.742	0.658	0.562	0.559	0.673	2.855

The tables reported the means and standard deviations for both the experimental and control groups in the pre-test. What was surprising about this data was the fact that the members of the experimental group seemed to perform better on the pre-test than the members of the control group even though members of both groups were assumed to be at the same level prior to the experiment. That is why a t-test was conducted as displayed in Table 5 to see whether this difference was significant.

Table 5. P value comparing pre-tests for both experimental and control groups in all writing aspects

	t Stat	Df	T Critical	Sig. (2- tailed)
Content	1.036	56	2.003	0.3
Organization	0.908	59	2.001	0.4
Grammar	1.208	58	2.002	0.3
Vocabulary	0.706	59	2.001	0.5
Mechanics	0.768	59	2.001	0.5
Total	1.067	59	2.001	0.3

The results of this t-test displayed in Table 5 show that the difference in the levels of the students in the pre-test for both the experimental and the control groups was not significant.

Hence, if a significant difference was to occur after the experiment it could be assumed that the difference was the result of the collaborative writing variable.

Descriptive statistics were also used to analyze how the post-test scores differed among the experimental and control groups as shown in Table 6 and Table 7. In these two tables the mean and standard deviation for writing features of both groups are displayed.

Table 6. Mean for Experimental and Control groups post-test

	Content	Organization	Grammar	Vocabulary	Mechanics	Total
Experimental	3.129	3.177	2.960	3.161	3.113	15.540
Control	2.817	2.608	2.675	2.775	2.625	13.500

Table 7. Standard deviation for Experimental and Control groups post-test

	Content	Organization	Grammar	Vocabulary	Mechanics	Total
Experimental	0.710	0.665	0.496	0.607	0.707	2.821
Control	0.751	0.688	0.650	0.631	0.759	3.105

The mean and standard deviation of members in both the experimental and the control groups in the post-test showed a difference in results. However, to know whether this difference was significant or not a t-test had to be conducted to explore the significance of these scores. In this experiment, the performance of participants in both the experimental and control groups was examined and compared in terms of content, organization, grammar, vocabulary and mechanics as per the scoring rubric in Appendix A. In addition, the total score of all these writing features was summed up to see whether the quality of the participants' writing as a whole improved as a

result of the treatment. To examine whether the different writing features were affected in this experiment, both the pre-test and post-test scores for each student were compared and a t-test was conducted to compare scores and to examine whether there was a significant improvement. Tables 8, 9 and 10 display the t-test results for the writing features that were not significantly affected by the treatment.

Table 8. t- test for the content variable using data from pre-test and post-test

	<i>content E</i>	<i>content C</i>
Mean	0.274	0.208
Variance	0.397	0.444
Observations	31	30
Hypothesized Mean Difference	0	
df	59	
t Stat	0.396	
P(T<=t) one-tail	0.347	
t Critical one-tail	1.671	
P(T<=t) two-tail	0.693	
t Critical two-tail	2.001	

Note. E= experimental group; C= control group

Table 9. t-test for the vocabulary variable using data from pre-test and post-test

	<i>vocabulary E</i>	<i>vocabulary C</i>
Mean	0.395	0.117
Variance	0.462	0.443
Observations	31	30
Hypothesized Mean Difference	0	
df	59	
t Stat	1.617	
P(T<=t) one-tail	0.056	
t Critical one-tail	1.671	
P(T<=t) two-tail	0.111	
t Critical two-tail	2.001	

Note. E= experimental group; C= control group

Table 10. t- test for the grammar variable using data from pre-test and post-test

	<i>grammar</i> <i>E</i>	<i>grammar</i> <i>C</i>
Mean	0.097	0.000
Variance	0.211	0.302
Observations	31	30
Hypothesized Mean Difference	0	
df	57	
t Stat	0.745	
P(T<=t) one-tail	0.230	
t Critical one-tail	1.672	
P(T<=t) two-tail	0.459	
t Critical two-tail	2.002	

Note. E= experimental group; C= control group

Tables 8, 9 and 10 display how content, vocabulary and grammar were affected by the experiment. The descriptive statistics in Table 6 and Table 7 show a difference between the mean and standard deviation of these writing features, meaning that a noticeable improvement was observed. However, when the t-test compared the pre-test and post-test scores for both experimental and control groups, the results did not appear to be significant. For instance the *p* value for the content variable was 0.4, that of grammar was 0.5 and that of vocabulary was only 0.1. It is difficult therefore to assume that these writing features improved as a result of the treatment, especially since the participants in the experimental group somewhat scored better in the pre-test than those in the control group. The treatment, however, showed some significant improvement in other writing features as displayed in Tables 11, 12 and 13.

Table 11. t- test for the organization variable using data from pre-test and post-test

	<i>organization E</i>	<i>organization C</i>
Mean	0.435	0.0167
Variance	0.3207	0.465
Observations	31	30
Hypothesized Mean Difference	0	
df	56	
t Stat	2.605	
P(T<=t) one-tail	0.006	
t Critical one-tail	1.673	
P(T<=t) two-tail	0.011	
t Critical two-tail	2.003	

Note. E= experimental group; C= control group

Table 12. t- test for the mechanics variable using data from pre-test and post-test

	<i>mechanics E</i>	<i>mechanics C</i>
Mean	0.411	0.058
Variance	0.327	0.356
Observations	31	30
Hypothesized Mean Difference	0	
df	59	
t Stat	2.356	
P(T<=t) one-tail	0.011	
t Critical one-tail	1.671	
P(T<=t) two-tail	0.022	
t Critical two-tail	2.001	

Note. E= experimental group; C= control group

Table 13. t- test for the total writing score from pre-test and post-test

	<i>total E</i>	<i>total C</i>
Mean	1.653	0.375
Variance	4.644	6.012
Observations	31	30
Hypothesized Mean Difference	0	
df	58	
t Stat	2.160	
P(T<=t) one-tail	0.017	
t Critical one-tail	1.672	
P(T<=t) two-tail	0.034	
t Critical two-tail	2.002	

Note. E= experimental group; C= control group

Tables 11, 12 and 13 display how organization, mechanics and the overall writing quality were affected by the experiment. The t-test illustrates that the experimental group showed a significant improvement in the organization feature with a *p* value of 0.01. There was also a significant improvement in the writing mechanics with a *p* value of 0.02. In addition, when the total scores for both groups were compared, the overall writing quality showed a significant difference between the writing quality of members in the experimental group and members in the control group with a *p* value of 0.03. This meant that participants in the experimental group showed an overall improvement in their writing quality than participants in the control group. In other words, the t-test results showed that the individuals in the group that used collaborative writing outperformed the individuals in the group that relied on traditional writing techniques in areas of organization and mechanics. They also showed a significant improvement in their overall writing quality.

4.2 Observed textual differences across both groups

To answer the second research question, a textual analysis of the students' writing was conducted to explore whether fluency and organizational patterns were affected by the experiment.

4.2.1 Fluency

Fluency was measured according to the length of each text, i.e. by the total number of words in each student's essay. To do so, the operational definition proposed by Gebril and Plakans (2013) was used which defined fluency as the total number of words per essay. As displayed in Table 14 the results showed that individuals in the experimental group usually wrote longer texts compared to participants in the control group. The mean number of words used by the experimental group members was 162 while the mean number of words used by members in the control group was only 133. When a t-test was administered to compare the fluency across both experimental and control groups, a significant difference was observed with a p value of 0.01. This meant that collaborative writing tasks had a significant effect on fluency of writers and pushed them to write longer texts in their individual production.

Table 14. t-test comparing fluency of both experimental and control groups in post-test

	<i>Fluency E</i>	<i>Fluency C</i>
Mean	162.17	132.97
Variance	2,956.21	843.82
Observations	31	30
Hypothesized Mean Difference	0	
df	45	
t Stat	2.58	
P(T<=t) one-tail	0.01	
t Critical one-tail	1.68	
P(T<=t) two-tail	0.01	
t Critical two-tail	2.01	

Note. E= experimental group; C= control group

Since individuals in the experimental group wrote longer texts, they had a higher tendency of dividing their writing into paragraphs. While the mean number of paragraphs for the experimental group was 2.29, that for the control group was only 1.33. This number proved to be near significant since when a t-test was conducted to compare the pre-test and post-test scores across both groups the p value was 0.06 as shown in Table 15.

Table 15. t- test comparing number of paragraphs of both experimental and control groups from pre-test and post-test

	<i>Paragraphs E</i>	<i>Paragraphs C</i>
Mean	0.45	-0.27
Variance	2.12	2.34
Observations	31	30
Hypothesized Mean Difference	0	
df	59	
t Stat	1.88	
P(T<=t) one-tail	0.03	
t Critical one-tail	1.67	
P(T<=t) two-tail	0.06	
t Critical two-tail	2.00	

Note. E= experimental group; C= control group

One of the other features that were noticed was paragraph indentation. It was observed that writers in the experimental group had a tendency to indent their paragraphs. This phenomenon was very apparent in that its frequency reached as high as 2:1 meaning that for every two participants in the experimental group who indented their paragraph, only one in the control group did.

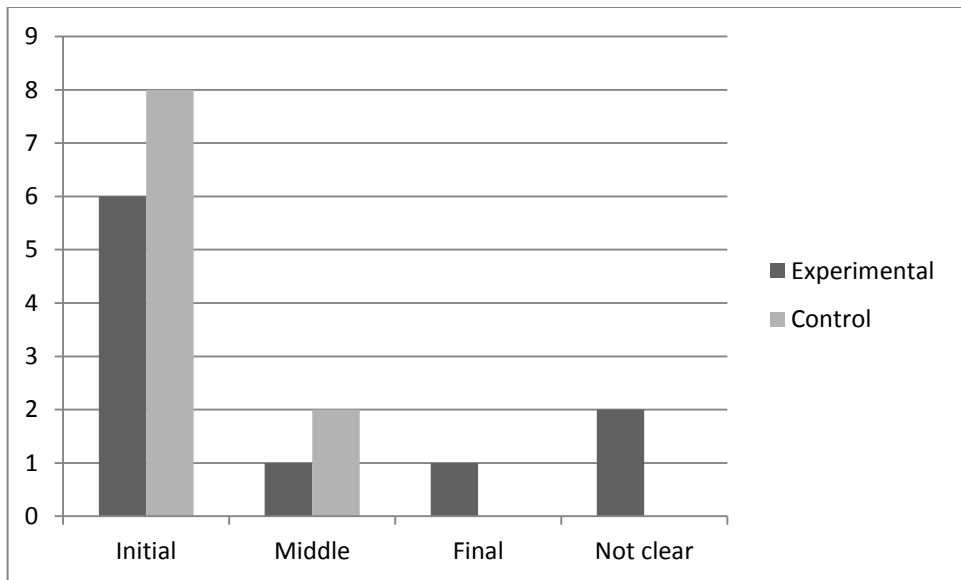
4.2.2. Organizational patterns

To explore the organization patterns that the participants used in their writing I focused on a total of 20 post-test student papers, 10 from either group. By focusing on a small sample of

papers, it was easy to do an in-depth textual analysis of the organization patterns that were used in students' writings.

Out of the 20 randomly chosen writing samples, which included 10 samples from the experimental group and 10 from the control group, only two individuals seemed to have an obscure main idea or topic sentence. Both members were from the experimental group. As displayed in Figure 1, most members in both teams seemed to prefer stating their position, which was either with using credit cards or cash, at the very beginning of their writing. 60% of the participants in the experimental group and 80% in the control group stated their idea at the very beginning of their writing. More advanced writers from both groups preferred to include an introductory statement that would pave way for the thesis statement or the topic sentence itself.

Figure 1. Comparing the location of the main idea

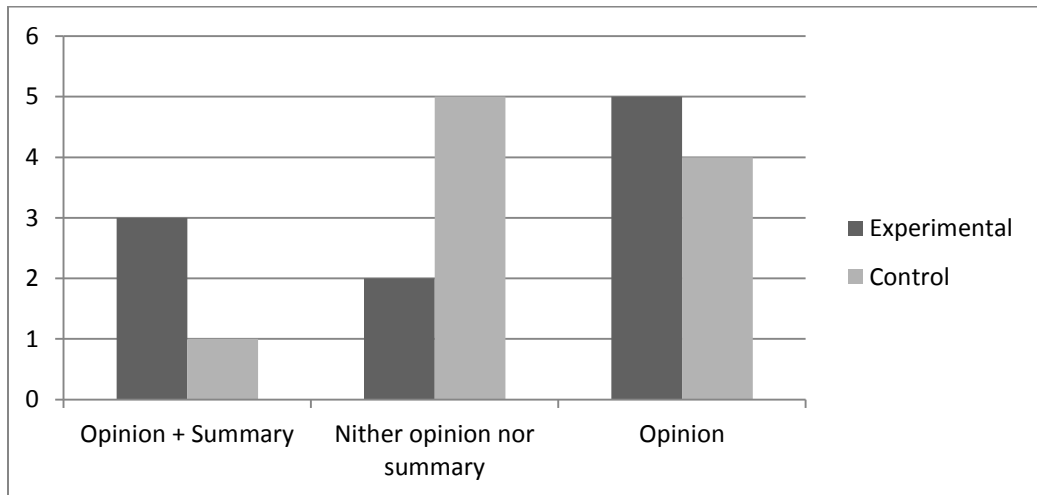


Not many participants stated the main idea in the middle or at the end of the writing but it was noticeable that the individuals who had a tendency to state their idea in different locations other than the beginning of the writing, were more likely to be from the experimental group.

While only one person in the control group wrote the main idea in the middle of the writing, three different people in the experimental group stated their main topic sentence at different locations in the writing. These locations varied between the middle to the end of the text.

When the summary statement was analyzed, a clear difference was noticed in how the conclusion was written by participants of both groups. As displayed in Figure 2, about half the participants from both teams wrote a position restatement in their conclusion, meaning that they restated and paraphrased their original opinion. However, it was also noticed that 50% of the participants in the control group wrote neither a summary nor an opinion at the end of the writing, while only 20% of participants in the experimental group had neither opinion nor summary in the final section. Moreover, 30% of the participants in the experimental group stated both their opinion and a short summary in their conclusion, which produced a more sophisticated conclusion whereas only 10% in the control group did the same.

Figure 2. Comparing the presence or absence of summary statements



After exploring how the writers who had no summary statement ended their text, it appeared that they had a tendency to just stop their writing once they finished discussing the last supporting idea that they were tackling. In other words, they did not do a proper wrap up or

finish their writing. This indicated that these writers did not consider proper ways to conclude their text or lacked the knowledge of what to write in the conclusion.

To summarize this section, it is worth mentioning that very little difference was noticed in the organizational patterns used by both groups in terms of the placement of the main idea. Most students appeared to prefer writing their main idea in the initial position or at the start of their text. However, a clearer difference was observed in what they decided to include in their concluding statements. While individuals in the control group preferred to either write their opinion or not wrap up at all, experimental group participants were more likely to add more details like a summary to accompany their opinion or just to state their opinion.

Chapter 5: Discussion and Conclusion

This chapter offers an interpretation and a detailed analysis of the data that was presented in the Results Chapter to answer the two research questions that are posed in this study. In addition, it presents the implications of this study, its limitations and it gives some suggestions for further research directions in this area.

5.1 Discussion of results

The study aimed to explore the effect of collaborative writing on an individual students' writing performance. It answered two research questions: the first explored the effect of collaborative writing on different features of writing as measured by scores assigned by raters using an analytical scoring rubric, and the second investigated how the texts of individuals from different groups differed in terms of fluency and organizational patterns by adapting a textual analysis technique.

5.1.1 The effect of collaborative writing on the quality of students' individual writing

The results that were presented in the previous chapter offer useful insight in how collaborative writing can affect the performance of an individual writer. The statistical analysis revealed that individuals in the experimental group, who performed three written tasks collaboratively, significantly performed better on the post-test as compared to individuals in the control group who accomplished the tasks individually. However, the effect varied from one area to another. This improvement was observed significantly in areas of organization, mechanics as well as the overall quality of the written text.

These results are consistent with results from previous research in some aspects. In Shehadeh's (2011) study which was conducted with 38 first year university students in The United Arab Emirates (UAE), the results showed that collaborative writing resulted in a significant improvement in areas of organization, content and vocabulary. Since Shehadeh's (2011) study was one of the closest to the present study, as they both used the same rubric and followed similar techniques in the data collection, it was worth investigating why the results were not that consistent. While both showed a significant improvement in organization the present study showed significant improvement in mechanics while Shehadeh's (2011) study showed significant improvement in content and vocabulary.

A possible explanation for this discrepancy is the different proficiency levels of the participants in both studies. While participants in Shehadeh's study were between a B1 and a B2 on the CEFR scale, participants in the present study were between A2 and B1. This could indicate that as the levels of participants in collaborative writing improved, the features of writing affected by collaboration changed. Since individuals in the present study were less advanced they were more sensitive to simpler and more straightforward writing features like mechanics, which included aspects like capitalization, punctuation, spelling and paragraph indentation. This specific writing feature presented a limited range of rules which could be easily recognized and even mastered by low proficiency learners (Shehadeh, 2011).

Another variable that could have triggered this discrepancy is the purpose and objective of both courses. While Shehadeh's (2011) study was administered in the context of a purely writing course, which was conducted with university undergraduate students as a core requirement for taking their other university courses, the present study involved a general English course given to adults who paid money to improve their overall language proficiency. Thus, writing was just one

of the skills targeted for instruction. This difference in the motive behind taking both courses and the nature of each course could have affected how learners approached writing in general in each one of these courses. In the university course, which can be considered a higher stakes course, the learners might have been focusing on more important writing aspects like content and vocabulary to give a richer written output. However, in the general English course, where learners were more interested in producing an acceptable piece of writing that would just help them communicate their ideas, learners were did not focus on producing a variety of ideas with a diversity of sophisticated vocabulary. This might explain why no significant improvement was observed in the content and vocabulary features.

It was somewhat surprising, though, that grammar was not significantly affected by the collaborative writing task, especially that it was observed in their collaboration activity that students were giving each other feedback on grammar. This could be explained again by considering the low proficiency level of the learners in the present study. This low proficiency level might have impeded effective grammatical assistance; thus, they were unable to give one another accurate feedback on grammar.

Along the same lines, the low proficiency level of the students could explain why organization and mechanics were significantly affected by the collaborative writing task. Since their level was low, it was easier for them to recognize the more apparent writing features that were addressed in their collaborative writing tasks. In these CW tasks members were able to identify how the organization of the writing should be because they were involved in the writing and they were able to understand the rationale behind ordering ideas in a certain way versus another. The same could apply to their improvement in the mechanics feature, as mechanics involved certain rules that when recognized, could be easily applied and adapted properly.

Regardless of which writing aspects were significantly affected, the present study, similar to other studies (Abadikhah, 2012; Mahmoud, 2014, 2014; Shehadeh, 2011; Storch & Wigglesworth, 2007), supported the use of collaborative writing as a means of developing the student's overall writing skills. A possible reason why the experimental group's scores in the post-test were significantly better than those of the control group could be due to the opportunities that were provided to students in the experimental group by CW. By adapting CW, learners of different proficiency levels were able to encourage, support and give feedback to one another. Collaborative writing also allowed learners to experience a fun and interesting learning environment, which encouraged them to share and exchange ideas. In addition, the process of writing collaboratively could have given its participants an extra advantage as it allowed them to brainstorm ideas together, discuss these ideas, think, draw an outline and search for solutions to problems. It could have highlighted to some learners some of their weaknesses that they were not aware of or were not sure how to overcome.

5.1.2 Textual difference across both groups

As mentioned in the results section, when the writing samples of both groups were analyzed intertextually, apparent differences were identified across both groups. These differences were interesting and surprising, as they were not directly targeted in the study. The students were not taught which organizational patterns to use and they were not required to write longer texts in the post-test. That is why these findings were considered as a byproduct of the treatment or an observation of how participants in both groups were affected by the experiment.

As mentioned earlier, fluency was one of the variables that was significantly improved by collaborative writing. Unlike Gebril and Plakans's (2013) study, where participants were asked to

use external sources to aid them in writing to assess their fluency, in the present study participants were not asked to use external sources and they were also not exposed to patterns outside their current knowledge to aid them in writing longer texts their writing. That is why it was surprising to see that the individuals who were exposed to collaborative writing eventually wrote longer texts. This might be due to the fact that they experienced a different technique in writing that taught them how to brainstorm several ideas and write them, which eventually made their writing longer texts.

Since participants in the control groups wrote longer texts, they had a tendency to divide their writing into paragraphs to separate and highlight their ideas. While members of the control group wrote one or two paragraphs in their post-test, participants in the experimental group had a tendency to divide their writing into more than two paragraphs to tackle each idea in a separate paragraph. Experimental group participants also had a tendency to indent their paragraphs, which resulted in the production of a similar writing layout across most of the students who were exposed to collaborative writing. This finding can be another effect of collaborative writing on low proficiency learners. In the process of writing, these low proficiency learners seemed to recognize the layout of the final writing that they produced as a team. They were able to notice that the writing was not produced as one bulk in one paragraph and they were able also to notice how the indentation facilitated identifying different parts in the writing. Therefore, it could be argued that these paragraphing variables were easily acquired and implemented in students' own writing since they were exposed to them beforehand as a team during the collaborative writing activity.

Finally, an observable difference was noticed in the organizational patterns used by members of both groups. This difference was clearer in the presence or absence of a summary

statement or a conclusion. While 50 percent of participants in the control group had no summary statement, only 20 percent of participants in the experimental group failed to properly conclude their writing. This could indicate that collaborative writing had a hand in spreading awareness among members of the team of the importance of writing a conclusion rather than just ending the paragraph once they were done with listing their ideas. Since members of collaborative writing teams discussed together what should and should not be included in the writing, they usually agreed that an appropriate conclusion had to be added to end the writing. This discussion might have alerted participants of the group of the importance of adding a conclusion to wrap up their writing in case they were not previously aware of that.

5.2 Implications

A number of pedagogical implications may be derived from the findings of this study. The study provided additional evidence of the importance of collaborative writing in second language classrooms. It has shown how CW can be used as a tool to encourage students to collaborate and to benefit one another from the knowledge they share in the process. The study has also challenged the traditional belief that writing is a solitary act that needs to be accomplished individually by promoting the idea of creating a written piece collaboratively. Using findings from this study, teachers can be encouraged to use collaborative writing in their classrooms when they want to work on the skills that were significantly affected in the study.

The present study has also highlighted the importance of making students aware of the objectives and the purpose behind different activities. This implication was consistent with what Fredrik (2008) proposed in her study, i.e. that learners need to be made aware of the importance of working collaboratively and of how it would be beneficial to their overall language learning.

The study demonstrated how learners reacted differently when they were told the importance of the task versus when they were just ordered by the teacher to do it without being convinced.

Some solutions to overcome the problem of the silent observer were proposed in this study. These suggestions can be used in collaborative writing tasks as well as in other types of collaborative activities. It was proposed in this study that the teacher should monitor the performance of group members and assign roles to ensure that they all members participated. The role of the scribe, for example, could be assigned to the member who participated the least to ensure that he/she would engage in the task.

5.3 Limitations

The present study is not without its limitations. Since the study was conducted as part of a general English course, some of the participants in both experimental and control groups were lacking the enthusiasm and the motivation to improve their writing. A number of them were more interested in improving their listening and speaking skills and they were not eager to exert an extra effort to improve their writing which might have held back their progress.

Another limitation lies in the low proficiency level of the participants. Since they did not possess a good mastery of the language, the feedback they were giving each other was targeted more to the simpler and more straightforward aspects of writing like language accuracy in mechanics versus vocabulary. That is why participants showed a significant improvement in the language aspects that they were able to easily recognize and give feedback on like mechanics, but no significant improvement in vocabulary which required a higher mastery of the language in order to analyze and provide feedback.

It would have been more insightful as well to analyze how the participants were interacting with one another during the course of the collaborative writing task by audio recording the interactions. This analysis would have highlighted which writing aspects the participants in the group were eager to improve and which they focused their feedback on. It would have explained how members in collaborative writing function, how they interacted with one another and it would have explained the kind of relationship they maintained as a group. More importantly, an analysis of their dialogue would have demonstrated how they perceived the task and how serious they regarded it. However, this analysis was beyond the scope of this study because the main purpose of the present study was to investigate the effect of CW on an individual's writing performance by analyzing the written text produced by this individual.

In addition, investigating the attitude of participants regarding the collaborative writing task could have explained why certain language aspects improved while others did not. This attitudinal investigation might have given rich qualitative data that could have explained what learners focused on during the task and what language aspects were perceived to have improved. But similar to studying the interaction of participants, exploring attitude was beyond the scope of this study.

During the study, participants in the control group were asked to write three collaborative writing tasks throughout the treatment stage before individually writing the final post-test. While this number was sufficient to show a significant effect on certain language aspects as shown in the results section, an increased exposure to collaborative writing and a prolonged treatment could have given findings that were richer and shown a significant effect on more writing features. If more episodes of collaborative writing were administered like in Shehadeh's (2011) study, the findings of the present study could have included a significant effect on other variables

like content and grammar as well. However, because this was a twelve-session general English course, there was no room to conduct more instances of collaborative writing thus a total of three collaborative writing tasks were only administered in the treatment stage.

Another limitation of this study lies in how the writings were scored by the raters. It would have been more reliable if only three raters were to score all the 120 writing samples and then have the researcher compare the scores of the three raters. However, because of the difficulty of finding one volunteer to score 120 writing samples the researcher had to divide the samples equally and systematically across a number of raters. This division resulted in each rater assessing the writings of 10 individuals from the control group, including the pre-tests and post-tests for the same individuals, and the writing of 10 individuals from the experimental group also including the pre-tests and post-tests for the same individuals. Eventually, each rater was to score a total of 40 writing samples and every writing sample was to be scored by three different raters. Therefore, even though each writing sample was scored by three different raters, which did ensure a level of reliability, the scores would have been more reliable if all the writing samples were scored by the same three raters.

5.4 Conclusion and directions for further research

Despite the limitations of this study, it still contributed to previous research in this field. The findings exhibited how the usage of collaborative writing in the classroom positively impacted the writing of students and affected their independent writing. The study displayed how both organization and mechanics were significantly affected by collaboration and how this collaborative writing alerted students to write longer texts and to add a conclusion at the end of their writing that would wrap up their ideas and highlight their opinion.

Since this study was mostly quantitative in nature, it did not give an in-depth analysis for the reasons behind why certain writing aspects were affected while others were not. That is why further research is still needed to explore this phenomenon. Questionnaires and interviews with participants could be conducted to study how students perceived the task and to identify which variables the learners were mostly focusing on during the collaborative task. Further studies can also provide a textual analysis of the collaborative writing output itself and compare it with the output of individuals in the pre-test and the post-test. This analysis can give a good insight on which language aspects change in the collaborative task but remain fossilized with learner when writing individually.

Another suggestion for further research could be by recording the collaborative writing sessions. This rich resource could provide an in-depth analysis of the kind of interaction that happens between participants in the group. Previous research has shown that there are several factors that could affect interaction like the different learners' strategies of learners, their cognitive development, their shared goals and the composition of the group (Leeser, 2004; Nassaji & Cumming, 2000). These factors can all affect the collaborative writing task and should be considered in further research that would look into the effectiveness of CW tasks.

References

- Abadikhah, S. (2012). The effect of mechanical and meaningful production of output on learning English relative clauses. *System*, 40(1), 129–143. <https://doi.org/10.1016/j.system.2012.01.001>
- Barkley, E., Cross, K. P., & Major, C. H. (2014). *Collaborative learning techniques : A handbook for college faculty*. San Francisco, CA, USA: Wiley. Retrieved from <http://site.ebrary.com/lib/aucairo/docDetail.action?docID=10869676>
- Bolton, M. K. (1999). The role of coaching in student teams: A “just-in-time” approach to learning. *Journal of Management Education*, 23(3), 233–250.
- Bremner, S., Peirson-Smith, A., Jones, R., & Bhatia, V. (2014). Task design and interaction in collaborative writing the students’ story. *Business and Professional Communication Quarterly*, 77(2), 150–168.
- Camps, A., Guasch, O., Milian, M. & Ribas, T. (2000). Metalinguistic activity: The link between writing and learning to write. In Camps, A. & Milian, M. (Eds.), *Metalinguistic activity in learning to write* (pp. 103-124.). Amsterdam: Amsterdam University Press.
- Chizhik, A. W. (1998). Collaborative learning through high-level verbal interaction: From theory to practice. *The Clearing House*, 72(1), 58–61.
- Dillenbourg, P., Baker, M., Blaye, A. & O'Malley, C. (1995) The evolution of research on collaborative learning. In Spada, E.& Reiman, P. (Eds.) *Learning in Humans and Machine: Towards an interdisciplinary learning science*. (p. 189-211) Oxford: Elsevier.
- Dobao, A. (2012). Collaborative writing tasks in the L2 classroom: Comparing group, pair, and individual work. *Journal of Second Language Writing*, 21(1), 40–58.
<https://doi.org/10.1016/j.jslw.2011.12.002>
- Dobao, A. (2014a). Attention to form in collaborative writing tasks: Comparing pair and small group interaction. *Canadian Modern Language Review*, 70(2), 158–187.
<https://doi.org/10.3138/cmlr.1768>

- Dobao, A. (2014b). Vocabulary learning in collaborative tasks: A comparison of pair and small group work. *Language Teaching Research*, 18(4), 497–520.
- Dobao, A., & Blum, A. (2013). Collaborative writing in pairs and small groups: Learners' attitudes and perceptions. *System*, 41(2), 365–378. <https://doi.org/10.1016/j.system.2013.02.002>
- Ede, L. S., & Lunsford, A. A. (1990). *Singular texts/plural authors: Perspectives on collaborative writing*. Southern Illinois University Press.
- Farzaneh, N., & Nejadansari, D. (2014). Students' attitude towards using cooperative learning for teaching reading comprehension. *TPLS Theory and Practice in Language Studies*, 4(2), 287–292.
- Fleming, V., & Alexander, J. (2001). The benefits of peer collaboration: A replication with a delayed posttest. *Contemporary Educational Psychology*, 26(4), 588–601.
<https://doi.org/10.1006/ceps.2001.1082>
- Fredrick, T. A. (2008). Facilitating better teamwork: Analyzing the challenges and strategies of classroom-based collaboration. *Business Communication Quarterly*, 71(4), 439–455.
- Gagné, N., & Parks, S. (2013). Cooperative learning tasks in a Grade 6 intensive ESL class: Role of scaffolding. *Language Teaching Research*, 17(2), 188–209.
- Gagné, N., & Parks, S. (2016). Cooperative learning tasks in a Grade 6 intensive English as a second language class: turn-taking and degree of participation. *The Language Learning Journal*, 44(2), 169–180. <https://doi.org/10.1080/09571736.2012.751120>
- Gebriel, A., & Plakans, L. (2013). Toward a transparent construct of reading-to-write tasks: The interface between discourse features and proficiency. *Language Assessment Quarterly*, 10(1), 9–27.
<https://doi.org/10.1080/15434303.2011.642040>
- Ghaith, G. (2001). Learners' perceptions of their STAD cooperative experience. *System*, 29(2), 289–301.
- Hedgcock, J., & Lefkowitz, N. (1992). Collaborative oral/aural revision in foreign language writing instruction. *Journal of Second Language Writing*, 1(3), 255–276.

- Hirose, K. (2003). Comparing L1 and L2 organizational patterns in the argumentative writing of Japanese EFL students. *Journal of Second Language Writing, 12*(2), 181–209.
[https://doi.org/10.1016/S1060-3743\(03\)00015-8](https://doi.org/10.1016/S1060-3743(03)00015-8)
- Jabbarpoor, S., & Tajeddin, Z. (2013). The effect of input enhancement, individual output, and collaborative output on freeing language learning: The case of English inversion structures. *Revista Española de Lingüística Aplicada, (26)*, 267–288.
- Jacobs, H. L. (1981). *Testing ESL Composition: A Practical Approach. English Composition Program*. Rowley, MA : Newbury House.
- Kim, Y. (2008). The contribution of collaborative and individual tasks to the acquisition of L2 vocabulary. *The Modern Language Journal, 92*(1), 114–130.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon.
- Kuiken, F., & Vedder, I. (2002). Collaborative writing in L2: The effect of group interaction on text quality. In S. Ransdell & M. Barbier (Eds.), *New directions for research in L2 writing* (pp. 169–188). Dordrecht: Kluwer.
- Leeser, M. J. (2004). Learner proficiency and focus on form during collaborative dialogue. *Language Teaching Research, 8*(1), 55–81.
- Limbu, L., & Markauskaite, L. (2015). How do learners experience joint writing: University students' conceptions of online collaborative writing tasks and environments. *Computers & Education, 82*, 393–408. <https://doi.org/10.1016/j.compedu.2014.11.024>
- Long, M. (1983). Native speaker/non-native speaker conversation and the negotiation of comprehensible input¹. *Applied Linguistics, 4*(2), 126–141.
- Louth, R., McAllister, C., & McAllister, H. A. (1993). The effects of collaborative writing techniques on freshman writing and attitudes. *The Journal of Experimental Education, 61*(3), 215–224.

- Mahmoud, M. (2014). The effectiveness of using the cooperative language learning approach to enhance EFL writing skills among Saudi university students. *Journal of Language Teaching and Research*, 5(3), 616–625. <https://doi.org/10.4304/jltr.5.3.616-625>
- Malmqvist, A. (2005). How does group discussion in reconstruction tasks affect written language output? *Language Awareness*, 14(2–3), 128–141.
- Nassaji, H., & Cumming, A. (2000). What's in a ZPD? A case study of a young ESL student and teacher interacting through dialogue journals. *Language Teaching Research*, 4(2), 95–121.
- Nassaji, & Tian, J. (2010). Collaborative and individual output tasks and their effects on learning English phrasal verbs. *Language Teaching Research*, 14(4), 397–419.
<https://doi.org/10.1177/1362168810375364>
- Nation, P. (2003). The role of the first language in foreign language learning. *Asian EFL Journal*, 5(2), 1–8.
- Nelson, G., & Carson, J. (2006). Cultural issues in peer response: Revisiting “culture.” *Feedback in Second Language Writing: Contexts and Issues*, 42–59.
- Ohta, A. S. (2000). Rethinking interaction in SLA: Developmentally appropriate assistance in the zone of proximal development and the acquisition of L2 grammar. *Sociocultural Theory and Second Language Learning*, 4, 51–78.
- Saleh, M., Lazonder, A., & Jong, T. (2007). Structuring collaboration in mixed-ability groups to promote verbal interaction, learning, and motivation of average-ability students. *Contemporary Educational Psychology*, 32(3), 314–331. <https://doi.org/10.1016/j.cedpsych.2006.05.001>
- Shehadeh, A. (2011). Effects and student perceptions of collaborative writing in L2. *Journal of Second Language Writing*, 20(4), 286–305. <https://doi.org/10.1016/j.jslw.2011.05.010>
- Storch, N. (2005). Collaborative writing: Product, process, and students' reflections. *Journal of Second Language Writing*, 14(3), 153–173. <https://doi.org/10.1016/j.jslw.2005.05.002>
- Storch, N. (2013). *Collaborative writing in L2 classrooms*. Bristol, UK: Multilingual Matters.

- Storch, N., & Wigglesworth, G. (2007). Writing tasks: Comparing individual and collaborative writing. In M. P. Garcí'a Mayo (Ed.), *Investigating tasks in formal language learning* (pp. 157–177). Bristol, UK: Multilingual Matters.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. *Input in Second Language Acquisition, 15*, 165–179.
- Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *The Canadian Modern Language Review, 50*(1), 158–164.
- Swain, M. (2001). Integrating language and content teaching through collaborative tasks. *The Canadian Modern Language Review, 58*, 44–63.
- Vygotsky, L. (1978). *Mind in society: The development of higher mental process*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. (1981). The genesis of higher mental functions. *The concept of activity in Soviet psychology*, 144–188.
- Wajnryb, R. (1990). *Grammar dictation*. Oxford University Press.
- Webb, N. M. (1985). Verbal Interaction and Learning in Peer-Directed Groups. *Theory Into Practice, 24*(1), 32–39.
- Yang, M., Badger, R., & Yu, Z. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second Language Writing, 15*(3), 179–200.
- Yong, M. F. (2010). Collaborative Writing Features. *RELC Journal, 41*(1), 18–30.
<https://doi.org/10.1177/0033688210362610>

Appendix A: Scoring rubric

Content	4	Excellent to very good: knowledgeable; substantive, thorough development of thesis; relevant to topic assigned
	3	Good to average: some knowledge of subject; adequate range; limited thematic development; mostly relevant to topic, but lacks detail
	2	Fair to poor: limited knowledge of subject; minimal substance; poor thematic development
	1	Very poor: shows little or no knowledge of subject; inadequate quantity; not relevant, or not enough to rate
Organization	4	Excellent to very good: fluent expression; clear statement of ideas; solid support; clear organization; logical and cohesive sequencing
	3	Good to average: adequate fluency; main ideas clear but loosely organized; supporting material limited; sequencing logical but incomplete
	2	Fair to poor: low fluency; ideas not well connected; logical sequencing and development lacking
	1	Very poor: ideas not communicated; organization lacking, or not enough to rate
Grammar	4	Excellent to very good: accurate use of relatively complex structures; few errors in agreement, number, tense, word order, articles, pronouns, prepositions
	3	Good to average: simple constructions used effectively; some problems in use of complex constructions; errors in agreement, number, tense, word order, articles, pronouns, prepositions
	2	Fair to poor: significant defects in use of complex constructions; frequent errors in agreement, number, tense, negation, word order, articles, pronouns, prepositions; fragments and deletions; lack of accuracy interferes with meaning
	1	Very poor: no mastery of simple sentence construction; text dominated by errors; does not communicate, or not enough to rate
Vocabulary	4	Excellent to very good: complex range; accurate word/idiom choice; mastery of word forms; appropriate register
	3	Good to average: adequate range; errors of word/idiom choice; effective transmission of meaning
	2	Fair to poor: limited range; frequent word/idiom errors; inappropriate choice, usage; meaning not effectively communicated
	1	Very poor: translation-based errors; little knowledge of target language vocabulary, or not enough to rate
Mechanics	4	Excellent to very good: masters conventions of spelling, punctuation, capitalization, paragraph indentation, etc
	3	Good to average: occasional errors in spelling, punctuation, capitalization, paragraph indentation, etc., which do not interfere with meaning
	2	Fair to poor: frequent spelling, punctuation, capitalization, paragraphing errors; meaning disrupted by formal problems
	1	Very poor: no mastery of conventions due to frequency of mechanical errors, or not enough to rate

Developed by Jacobs, Zinkgraf, Wormuth, Hartfiel, & Hughey (1981) and adapted by Shehadeh (2011)

Appendix B: Writing prompts for the collaborative writing activities

For the first collaborative task:

Pre-task speaking activity:

Read the statements below and circle two statements that you agree with individually.

1.	Wealthy people have a responsibility to help other people.
2.	Life is boring if you don't have a job.
3.	Winning a lot of money can make your life better.
4.	It's a bad idea to lend money to family members.
5.	If you are unhappy, having more money won't make you happy.

Compare the statements that you chose with your group members and decide on one statement that all members agree with

Writing task prompt:

Choose one of the statements that the whole group agrees with and in your group write why you agree with this statement explaining your reasons.

For the second collaborative task:

Pre-task speaking activity:

In your group think of a place in your country where the survival school would work well.

List some reasons why you think it would be a good place for the survival school.

Then list some of the activities that the students at this school would learn and experience.

Writing task prompt:

Choose one of the locations you discussed and in your group write two or three paragraphs for an advertising brochure. In the first paragraph describe the place and why it's a good location for the school and in the second paragraph describe the activities that students do there to learn.

For the third collaborative task:

Pre-task speaking activity:

Which type of art do you think should be promoted the most in Egypt? Why?

What are some of the ways that this type of art could be promoted?

Writing task prompt:

Choose one type of art that you think should be promoted more in Egypt and in your group write two or three paragraphs promoting this art. In the first paragraph state some of the reasons why you think this art should be promoted or preserved and in the second paragraph suggest ways for preserving it.

Appendix C: Writing prompts for the pre-test and post-test writing tasks

Writing prompts for the pre-test:

Money is a double-edged weapon. Do you agree or disagree? Why? (Minimum 100 words)

Writing prompts for the post-test:

Write about reasons why credit cards are better than cash or vice versa. (Minimum 100 words)

Appendix D: IRB Acceptance Letter

CASE #2015-2016-180



To: Sara Kotb
Cc: Sara Tarek
From: Atta Gebril, Chair of the IRB
Date: June 12 , 2016
Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "The Effect of Collaborative Writing on Individual Writing Performance" and determined that it required consultation with the IRB under the "expedited" heading. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

This approval letter was issued under the assumption that you have not started data collection for your research project. Any data collected before receiving this letter could not be used since this is a violation of the IRB policy.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Amr Salama. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

Thank you and good luck.

A handwritten signature in black ink that reads "Atta Gebril".

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