THE EFFECT OF COMPUTER-ASSISTED LANGUAGE LEARNING ON MOTIVATING STUDENTS TO WRITE

A Thesis Presented to the Department of Education

In Partial Fulfillment

of the Requirements for the Degree of

Master of Arts in Education

Emphasis: TESOL

by

Diana Zouhair Fidaoui

Under the Direction of

Dr. Rima Bahous

LEBANESE AMERICAN UNIVERSITY

June 2008
Thesis approval Form

Student Name: Diana Zouheir Fidaoui  i.D. #: 200500924

Thesis Title: The Effect of Computer-Assisted Language Learning on Motivating Students to Write

Program: Master of Arts in Education. Emphasis: TESOL

Division/Dept: Department of Education

School: School of Arts and Sciences

Approved by: Dr. Rima Bahous

Thesis Advisor:  

Member: Dr. Nola Bacha

Member: Dr. Leila Harmoush

Date: June 18, 2008
Plagiarism Policy Compliance Statement

I certify that I have read and understood LAU’s Plagiarism Policy. I understand that failure to comply with this Policy can lead to academic and disciplinary actions against me.

This work is substantially my own, and to the extent that any part of this work is not my own I have indicated that by acknowledging its sources.

Name: Diana Zouhair Fidaoui

Signature: [Blacked out]              Date: June 20, 2008
I grant to the LEBANESE AMERICAN UNIVERSITY the right to use this work, irrespective of any copyright, for the University's own purpose without cost to the University or its students and employees. I further agree that the University may reproduce and provide single copies of the work to the public for the cost of reproduction.
Abstract

The purpose of this mixed methods research is twofold: first, to examine the effectiveness of using CALL in motivating fourth grade ESL students to develop better writing skills and second, to explore the perceptions of ESL teachers and students regarding the use of CALL in the ESL classroom. The study was conducted over a period of three months. Its population consisted of forty eight fourth graders and their four teachers. A number of data collection instruments were used in this study: questionnaire, interviews with students and teachers, observations, and document analysis. Descriptive statistics were used to analyze the quantitative data. The analysis of the study’s results revealed that the teachers as well as the students shared almost similar perceptions toward the use of different CALL in the writing classroom and identified the same motivational factors that would encourage the students to produce well-developed written work. The researcher concludes by discussing the implications of the research for additional work on the productive integration of computer technology in the writing classroom and its effects on motivating the students produce work of high quality.
Dedication

To my caring mother, Mona
You guided me to accomplish my work

To my ambitious father, Zouhair
You supported me to make my dream become a reality

To my wise sister, Badia
You inspired me to strive for excellence in performing my duties

To my lovely sister, Rana
You encouraged me to persevere in pursuing success

I owe you deepest thanks
Acknowledgements

I am grateful to the academic institution that armed me with knowledge and gave me the opportunity to enjoy the experience of pursuing my graduate studies: LAU. I would like to thank a number of individuals who supported me throughout the completion of this thesis. I wish to thank my committee members for their professionalism in reviewing the thesis content, their insightful comments, and thoughtful suggestions. Thanks to Dr. Rima Bahous, Dr. Nola Bacha, and Dr. Leila Harmoush. Your invaluable contributions enhanced the quality of my work.

Special thanks to my unique advisor Dr. Rima Bahous whose dynamic persona and expertise motivated me to reach this stage in my academic life. I appreciate your patience, academic guidance and feedback, emotional support, fairness, commitment and willingness to assist me whenever I needed you. I thank you for believing truly in my abilities as a graduate student and for giving me the chance to support the education department’s ongoing research-based activities. I would like to express my positive feelings toward every staff member who works at the university’s library. Your devotion and love to your work made you succeed in creating a positive learning climate. You were constantly professional in offering your support.

I would like to thank the school’s director who patiently provided her excellent comments during my appointments with her. I also wish to thank the student participants and their parents who gave them the chance to be part in my study. I would like to express my deepest thanks to the four teacher participants who shared their ideas and constructive comments regarding the questionnaire items.
I would like to extend my appreciation to all my colleagues for their camaraderie, exchange of creative ideas, and the enthusiasm that they showed toward the quality of my work.
Outline

Abstract....................................................................................................................... 2

Dedication.................................................................................................................... 3

Acknowledgements.................................................................................................... 4

I. Chapter 1: Research Context
   A. Introduction.......................................................................................................... 9
   B. Research Setting.................................................................................................. 10
   C. Purpose of the study............................................................................................ 16
   D. Research Question............................................................................................... 16

II. Chapter 2: Literature Review
   A. Introduction ........................................................................................................ 18
   B. The use of computers in the writing process..................................................... 20
   C. The development of CALL.................................................................................. 32
   D. The use of CALL to write in the ESL classroom............................................... 36
   E. CALL and motivation in the English writing classroom.................................... 43
   F. Barriers to using CALL...................................................................................... 47
   G. Conclusion........................................................................................................... 53

III. Chapter 3: Methodology
   A. Proposition/Operational definition of variables............................................... 54
   B. Participants.......................................................................................................... 55
   C. Procedures.......................................................................................................... 55
   D. Data collection methods
      1. Observation.................................................................................................... 56
CALL and Motivation

2. Interviews........................................................................................................56
   
   a. Teachers’ interviews
   
   b. Students’ interviews

3. Questionnaire.................................................................................................58

4. Document analysis..........................................................................................59

E. Criteria for data collection instruments.........................................................59

F. Ethical issues....................................................................................................61

G. Data analysis...................................................................................................63

IV. Chapter 4: Data Analysis

1. Questionnaire..................................................................................................67

2. Students’ focus group interviews.................................................................75

3. Teachers’ interviews......................................................................................95

4. Observations..................................................................................................112

5. Document analysis.........................................................................................124

V. Chapter 5: Discussion.....................................................................................130

VI. Chapter 6: Conclusion

1. Conclusion.....................................................................................................142

2. Recommendations.........................................................................................142

3. Limitations.....................................................................................................143

4. Implications....................................................................................................144

5. Suggestions for further research.................................................................144

VII. References..................................................................................................146

VIII. Appendix A: Observation checklist and classroom scenarios...............156

IX. Appendix B: Student’s questionnaire ......................................................... 161
X. Appendix C: Students’ focus group interview questions ............................ 164
XI. Appendix D: Teachers’ interview questions ............................................. 165
XII. Appendix E: Parent informed consent form ........................................... 166
XIII. Appendix F: Student assent form .......................................................... 168
XIV. Appendix G: Document analysis rubrics ............................................... 169
XV. Appendix H: Students’ focus group interview transcripts ....................... 173
XVI. Appendix I: Teachers’ interview transcripts .......................................... 214
XVII. Appendix J: Samples of students’ computer-based written tasks ........... 230
CHAPTER ONE

Research context

*Introduction*

The incorporation of technology in today’s world has influenced the way individuals tend to think and act (US Congress, Office of Technology Assessment, 1995). People are responsible for using technology in a proper and beneficial way. Therefore, educational institutions have to adopt the integration of technology in the learning process to promote students’ autonomy and prepare them to face the challenges of a rapidly changing society and a machine-dominated age (Chiero, 1997; Conte, 1998). The use of Computer-Assisted Language Learning (CALL) in the writing classroom creates a supportive and motivating environment for the language learner since it allows him/her to work at his/her own pace and linguistic developmental level (Leu & Kinzer, 1999). Thus, students who are involved in such student-centered classroom environment tend to develop and enhance their independent writing skills in terms of quality and quantity (Goldberg, Russell & Cook, 2003).

According to Cuban (1986), instructional technology is “any device available to teachers for use in instructing students in a more efficient and stimulating manner than the sole use of the teacher’s voice” (p.4). The use of computers is invading the educational field. Nowadays, many language teachers make use of the computer as a technological device to keep their students motivated throughout the writing process (Owston & Wideman, 1997; Bacon, 1998; Jankowski, 1998). The researcher decided to investigate the motivational aspects of using CALL in the English as a Second Language...
(ESL) writing classroom since her intent is to promote language teachers' appropriate use of such technology-based instructional technique in the ESL writing classroom.

The primary significance of this study is that it describes how the use of CALL contributes to developing better writing skills. It investigates teachers and students' attitudes about some issues related to their experiences of the connection between writing and using CALL in the ESL classroom. From a pedagogical point of view, this study is significant since it will provide ESL language instructors with new insights regarding the use of CALL to support the writing process as it will examine the topic from the students' standpoint.

Research setting

The Constructivist Learning School (CLS) is a private educational institution that was founded in 1891 in Turkey. In 1936, the school moved to Beirut upon the invitation of the Worldwide Academic College of Beirut (WAIB), a famous higher education institution located in the city of Beirut. CLS is a mixed school that has two branches in Lebanon. The school's neighborhood includes the WAIB, Cosmopolitan School (CS), Global International School (GIS), and a few residential buildings on both sides of the road. One can easily notice the perfect environment for an educational institution and feel the extent to which the schools' location reflects the academic atmosphere in the area.

The school opens five days a week. The school day starts at 7:40 a.m. and ends at 2:00 p.m., except on Wednesdays where elementary students attend a half-day at school.

Following a well-defined schedule of the school's after-school programs, only registered students can stay till 3:15 p.m. on specified days in order to get engaged in a wide variety of activities that include chess, knitting, cooking, basketball, computer games,
Smart/Interactive Board projects, creative writing, mosaics and handcrafts, etc. At CLS, the students are held responsible for their actions and are aware that they have to show respect for self, others, and all property. CLS consists of 746 elementary students (362 students are enrolled in the French division whereas 384 students are enrolled in the English division). The school’s population is composed of a high percentage of Lebanese students who belong to high-income families. It also includes students from other nationalities in the Middle East as well as around the globe. The school’s multicultural diversity reflects its non-sectarian admissions policy. CLS received accreditation from both the European Council of International Schools (ECIS) and the New England Association of Schools and Colleges (NEASC). The school has created an official website that includes information about the school’s history, mission statement, academic programs, policies and regulations, extracurricular activities, calendar etc.

The mission statement of the school proposes to help compassionate learners become self-reliant individuals who are able to take the initiative, think critically, and inspire their society members by serving as role models and good citizens. The school considers a set of objectives through which the development of the learner’s lifelong skills and personality traits is being promoted. In other words, CLS aims at involving the students in educational programs that would support them academically, ethically, socially, aesthetically, and physically. The school implements the Primary Years Program (PYP) that follows international curricular guidelines. Besides, the school’s curriculum emphasizes the education of the whole person by immersing him/her in challenging and relevant academic programs that would stimulate his/her curiosity and enable him/her to strive for excellence at all levels. Moreover, the educators are invited to adopt an inquiry-
based approach to teaching and learning. The Information Technology (IT) curriculum focuses on problem-solving, generalizing skills, and composing with Hypermedia. The IT curriculum is based on a set of objectives that the students have to master by the end of the school year. The intended learning outcomes are developed by the IT teachers under the supervision of the IT coordinator. At CLS, the IT teachers are kept informed about the topics that the students study in any subject matter. As a matter of fact, this would help them plan for computer-based activities that would consolidate the students' understanding and knowledge of the concepts that are taught in different subject areas. The IT and homeroom teachers meet with each other in order to plan for activities that can be accomplished on the computer. The school supports professional development opportunities in IT and other domains.

CLS offers English, French, and Arabic as media of instruction. In fact, the school has an English as well as a French division. The former enables the students to receive their education in English and the latter allows them to study all subjects in French, except the Arabic language. The study involves 3 class sections that consist of fourth graders who are enrolled in the English medium division. Moreover, three homeroom teachers who are responsible for teaching a particular section of Grade IV are considered to be part of the study. The majority of the students are learning English as a second language and few are learning it as their first/native language since they were either born and/or lived abroad for a while.

At CLS, IT as a subject matter is integrated into language arts and science. The primary use of computers by Grade IV students is to practice and promote the development of their keyboarding, word processing, desktop publishing, presentation, file
management, information management (i.e. spreadsheet), page making, and drawing skills, use the Internet to develop their research skills, and reinforce specific skills through playing educational games. In other words, the students use the computer as a tool to fulfill their academic needs. Mavis Beacon Teaches Typing is the title of the software that the students use in order to develop their keyboarding skills (i.e. typing accurately by placing the 10 fingers on the appropriate keys of the keyboard). The software helps the computer teacher keep track of every student’s typing abilities by keeping records of his/her performance (i.e. typing speed, typing accuracy, proficiency level: Beginner, Intermediate, Advanced). The program itself produces a report that indicates the keyboarding skills that every student has mastered. Print Artist is a publishing program that the students run in order to create layouts (e.g. sings, banners, calendars, greeting cards, and posters) with special forms and designs. Grade IV students learn how to use Power Point which is a desktop presentation program. However, the program is not being utilized by the students in order to develop and create a slide show presentation with text, pictures, and animations, but they would rather fill out the layout provided by the teacher with relevant information or text. A word processing program like Microsoft Word is used in Grade IV since it allows for the manipulation of its features by its users who are expected to create a text and to format it. If the students are willing to draw on the computer, they can use Paint, a software that enables them manipulate the different drawing tools, insert a text, and end up presenting a meaningful drawing. Fourth graders learn also the basics for creating graphs that would illustrate relevant data by using an information management program known as Excel. Inspiration which is a web designing/organizing software is used at CLS. This software supports the
students' visual thinking techniques and allows them to create graphic organizers and concept maps that would help them organize their ideas and develop their thoughts. Microsoft Internet Explorer which a special browser and Google which is a search engine enable the students to search for and locate information on the Web whereas Encarta Kids is an electronic encyclopedia that helps the students be selective while searching for needed information. Clue Finders Years 3 & 4 Adventures is an educational software that entertains the students and strengthens their problem-solving and logical reasoning skills in different subject areas such as mathematics, logic, geography, science, reading, and language arts. The students do not use a particular textbook to study IT as a subject matter. They would rather learn how to apply the IT skills by completing computer-based assignments to fulfill specific learning needs.

Every classroom is equipped with a networked computer, a printer, and a scanner. 8 computers that are connected to the Internet server, 1 printer, and 1 photocopying machine are available in the school’s library as well. Two networked computer laboratories are located at the basement level. Both rooms are interconnected and you have to pass by the first computer room in order to reach the second one. Grades IV and V in the English and French sections use the first computer room whereas Grades I, II, and III in the English and French sections too use the second computer room. The computer lab in which the study was conducted has 27 personal computers (Type: Windows XP), 27 headsets, 1 black and white laser printer, a 34 inch television, 2 air conditioning machines, a teacher’s desk, and a white board. The room easily fit 27 students. The U-shaped computer room is well-illuminated and heated. The wooden chairs make no noise when moving them around since the floor is covered by vinyl sheet
flooring, a kind of substance that absorbs the noise. Students at CLS go to the computer lab once a week to spend a period of 50 minutes working on the computer. The IT teacher assigns seats to every student since the beginning of the academic year. Hence, the students don’t have the right to switch places. In other words, every student has access to a personal computer that he/she can use and save his/her work on. The IT teacher follows a pattern of male/female in seating the students.

The school employs a single IT coordinator to whom the IT teachers can report their problems and report their needs. Moreover, a technical service representative visits the computer lab on a daily basis to offer help and support to the IT and homeroom teachers who might be facing technical problems with the computers in their classrooms. Moreover, the teachers can get in touch with the technical assistant via emails. At CLS, the English language is being taught for a minimum of 9 to 10 hours per week.

The study is conducted at CLS for two main reasons: the school’s emphasis on teaching the students the IT skills as part of its academic programs, and the high percentage of non-native speakers of the English language in the fourth grade classroom (i.e. students who speak English as their second language). The study focuses on the use of the computer as a motivating tool for writing by Grade IV students at CLS. The research investigates the perceptions of fourth grade ESL teachers and students of the use of CALL and examines its motivational aspects that would encourage fourth graders to develop better their second language (L2) writing skills in terms of quality and quantity. The study addresses the aspects identified in the literature review that highlights the relationship between CALL and the writing process in the ESL classroom, the developmental stages of CALL, the major motivational aspects of CALL in the English
writing classroom, and the barriers that would impede the effective implementation of CALL in the ESL classroom.

Purpose of the study

The study has a dual purpose: first, to explore the effectiveness of using CALL in motivating fourth grade ESL students to develop better writing skills and second, to explore the perceptions of ESL teachers and students regarding the use of CALL in the ESL classroom.

The problem statement of this study is to describe fourth grade ESL teachers and students' perceptions of the use of CALL and to demonstrate the extent to which CALL motivates the students to develop better second language (L2) writing skills in terms of quality and quantity.

Many studies have been conducted to address the issue of motivation in the ESL classroom especially when the computer is used as a tool to support the writing process (Solomon, 1986; Hawisher & Lebanc, 1992; Raef, 1996; Owston & Wideman, 1997; Jankowski, 1998; Kahn, 1999). However, no single study, at least to the researcher's knowledge, has focused on examining the nature of the relationship that exists between the use of CALL by the elementary ESL learner and the development of his/her writing skills at the elementary school level.

Research question

The study attempts to answer one primary question: How does the use of CALL in the fourth grade ESL classroom affect learners’ motivation for writing?

This research intends to explore the motivational aspects of using CALL to develop better writing skills in the fourth grade ESL classroom and to explore the
perceptions of ESL teachers and students regarding the use of CALL in the ESL classroom at CLS.

Conclusion

This chapter has described the context of the study. Moreover, it stated the purpose of the research as well as the research question to be considered. The following chapter presents a review of the studies that were conducted on the different aspects of CALL and the use of such technology-based instructional technique in the ESL writing classroom.
CHAPTER TWO

Literature review

Introduction

In a technologically-based society and a machine-dominated age, the use of computers has become widespread and fundamental (Lasagabaster & Sierra, 2003). New technologies are designed to serve human beings and fulfill their social needs (Ancker, 2002). People who do not use modern technological tools such as the computer and the Internet are perceived as outdated (Moras, 2001). The integration of computers within school systems has increased significantly in the 21st century (Ayres, 2002; Goldberg, Russell & Cook, 2003). The integration of multimedia in educational curricula to support the language learning process became a routine especially in schools whose teaching philosophy is based on the use of computer programs to help the students improve their linguistic skills (Lasagabaster & Sierra, 2003). A national survey of teachers conducted in 1998 revealed that “50 percent of K-12 teachers had students use word processors, 36 percent had them use CD ROMS, and 29 percent had them use the World Wide Web” (Goldberg, et al., 2003, p. 3). Recent survey data show that “75 percent of elementary school-aged students and 85 percent of middle and high school-aged students use a computer in school” (Goldberg, et al., 2003, p. 3).

Educational technology plays a major role in making the language learning process more learner-centered, interpersonal and cooperative (Bialo & Sivin-Kachala, 1996; Stepp-Greany, 2002). Besides, Sanaoui and Lapkin (1992) noted that the use of computers in the language classroom context tend to develop the language learners’ independent learning skills and cultural awareness. The incorporation of educational
technology in the language classroom can help the language learners develop their receptive (i.e. listening and reading) and productive skills (i.e. writing and speaking) as well as their self-concepts, self-confidence and self-esteem (Lam & Pennington, 1995; Bialo & Sivin-Kachala, 1996; Stepp-Greany, 2002).

The use of technology in today’s classrooms has improved the instructional methods that were adopted in different subject matters (Burns, Roe, & Smith, 2002). Face-to-face teaching which is considered to be based on a traditional teaching approach has to be supported and complemented by the integration of technology (Sharma, 2007). Teachers should understand the difference between their duties as language professionals and the role that technology plays in their language classrooms (Sharma, 2007). The educational potential of Information and Communication Technology (ICT) cannot be achieved unless the teachers are familiar with the use of such technology and they exhibit a readiness to employ it in their language teaching practices (Moss & Southwood, 2006; Yunus, 2007; Stockwell, 2007). Some teachers seem intimidated whenever they have to use a new technology especially if the latter is too complex to deal with (Burns, et al., 2002). For this reason, they should be held aware of the technological tools’ strengths and weaknesses. Barker (1990) states that the quality of the students’ written work can be affected by the language teachers’ perceptions and attitudes toward computer-based writing. As decision-makers, they should know how they can best integrate the use of such tools in the language curriculum (Burns, et al., 2002). If the technological application does not fit into the subject matter’s curricular structure, it should not be employed (Burns, et al., 2002). The use of specific technological tools in the classroom has to be purposeful if the teacher’s aim is to guarantee the students’ successful
application of such technologies (Burns, Roe, & Smith, 2002). In other words, the technological tools should be used in a way that gives the students the chance to accomplish authentic tasks that develops student’s low and high order thinking skills (Burns, et al., 2002). Students should be prepared to use the technological tools before they get into their higher education and/or occupational domain (Childers, Jordan, & Upton, 1998). Thus, any technological innovation has to be employed as a tool that helps the students meet their real-life needs (e.g. note-taking, formulating questions, proofreading, editing material etc.) (Burns, et al., 2002). Moreover, it should be used in a way that supports and improves the student’s writing process and enhances his/her attitudes toward the process of writing (Childers, et al., 1998). Therefore, language teachers must examine the young writers’ needs as they engage them in the experience of becoming better writers (Childers, et al., 1998). They should guide them throughout the writing process by prompting them with helpful questions as well as providing answers to their questions (Childers, et al., 1998).

**The Use of Computers in the Writing Process**

One of the primary goals of education is to teach students how to develop effective language skills, one of which is writing (Lam & Pennington, 1995). Dixon and Nessel (1983) state that writing is considered by many individuals as the most frustrating skill in language learning. Rivers (1968) suggests that writing is a skill that has to be taught. Kroll (2001) supports Rivers’ argument and states that teaching writing is a complex task even if the language learner is a native speaker. Writing and revising the draft is considered to be time-consuming as well as a boring task for language learners (Solomon, 1986; Raef, 1996; Owston & Wideman, 1997). For this reason, young pupils
feel frustrated and demonstrate an unwillingness to revise their work whenever the teacher asks them to go through a process of erasing, changing, and modifying what they have written (Solomon, 1986).

Selfe, Rodrigues, and Oates (1989) point out that the immersion of L2 learners in CALL environments is central to language learning. A considerable body of literature has stressed a need to involve language learners in enjoyable and motivating CALL activities that stimulate their interests and their willingness to communicate using the computer as an interactive medium for self-expression (Thompson, 1978; Trush & Trush, 1984; Herron, 1994; Kern, 1995; Morran & Selfe, 1999; Goodwyn, 2000; Warschauer, 2000; Hart & Hicks, 2002). Lee (2000) reports on the use of computers as tools that facilitate the process of L2 acquisition. Saleeby (2005) suggests that second language teachers are expected to look for ways to make students' language learning experiences more like those that occur in the real world. As Dakin (1973) states, "we cannot teach a language; we can only create the conditions under which it will be learned" (p. 11).

Schwartz (1990) notes that the writing class is the best place where students can start developing their computer skills. However, he reports on the teachers' fear that subject-matter learning might decrease just by offering the students computer training sessions. Pennington (1989) reports that most ESL students enjoy using computers to support their writing process since the use of the tool makes their writing less tedious. However, some ESL learners reject this assumption since they have experienced language learning situations where they had to struggle in using the computer to edit. Dunkel (1987) recommends that teachers as well as students' familiarity with the use of
computers is a basic need that should be fulfilled to ensure the success of the computer-based L2 learning experience.

Due to its physical properties and information-processing features, the computer is perceived as a powerful tool that has positive impacts on the teaching and learning of the writing process (Marc Arthur, 1999; Kulik & Kulik, 1991). Marc Arthur (1999) assumes that the use of computers supports the cognitive phenomena that are involved in each stage of the writing process. Students who write with a computer and those who write on paper do not go through the same stages in the writing process. The latter starts their writing process by brainstorming, outlining the ideas, writing the first draft, revising it and then producing a second draft, proofreading it before the production of the final version. The former begins recording the ideas, tends to integrate the process of producing, revising and editing the writing, and can modify the ideas before the completion of the final draft (Goldberg, et al., 2003). Warschauer (1996) claims that the use of the computer allows the students to spend less time learning the target language, write creatively and produce essays of high quality. He reports that using a computer places the users in a position of control over their learning and permits the development of their independent and autonomous language learning strategies. In addition, it increases the chances of practicing the target language among the interactants (Warschauer, 1996). Computer-Based Materials (CBMs) that are considered to develop the user’s autonomy include word-processors, web-based resources (e.g. commercial products), and CMC applications (Figura & Jarvis, 2007). The use of CBMs can provide the language learners with opportunities to use the language in authentic contexts with an authentic audience in order to fulfill a particular pedagogical purpose (Figura & Jarvis,
2007). When students write with a computer, the writing task turns into a collaborative activity that stimulates the students to act as peer-editors and peer-mediators, and thus develop their social and interpersonal skills (Lam & Pennington, 1995; Goldberg, et al., 2003). Moreover, the role of the teacher has changed in the computer-based writing classroom. His/her role consists of facilitating the acquisition of the writing process and proof-reading the students’ work (Goldberg, et al., 2003). The change in the teacher’s role increased the students’ motivational level, degree of involvement and independence when using a computer to produce a written work (Goldberg, et al., 2003).

According to Warschauer (1996), the use of CALL technology can serve a double purpose. The first purpose is achieved through the use of the computer as a writing tool that facilitates but does not teach the process of writing. The second purpose is fulfilled through the use of the computer as a communication device that enables the language learners to interact with each other via electronic mails and computer conferencing sessions in order to support the process of constructing the target language (Warschauer, 1996). The use of word processors to facilitate the completion of a writing task is essential since they stimulate students’ curiosity and ensure the development of their creative target language (Lam & Pennington, 1995; Bialo & Sivin-Kachala, 1996; Jung & Kim, 2004). Using a simulation software like a word processor can highly engage the users in interactive and intrinsically motivating language learning experiences that are not provided by coursebooks (Bialo & Sivin-Kachala, 1996). Lam and Pennington (1995) consider the use of word processors as fun and exciting since the users do not perceive the writing act as a punishment. Writing with a computer creates an exciting opportunity for students, especially those in low elementary classes, to develop their communicative
skills (Ancker, 2002). The use of word processors enhances the development of the
language learners' collaborative writing and social skills (Warschauer, 1996). Students
who employ word processors display fewer new errors during the revision stage in
contrast with those who re-write their handwritten products (Lam & Pennington, 1995;
Goldberg, et al., 2003). However, a study that was conducted on third graders who used
the computer and the paper and pencil to write indicated that the production of
handwritten passages was superior in terms of quality and quantity over the production of
computer-supported writing that was described as artificial and less creative (Goldberg, et
al., 2003). Above all, the effectiveness of using a particular computer-based writing
program depends primarily on the way the writing teacher uses it in the classroom,
his/her degree of familiarity with the program's functions besides his/her technological
skills (Moras, 2006; Chen & Cheng, 2006). Franklin (2007) believes that the use of
computers at the elementary school level is based on constructivist pedagogies that
enable the students to explore new ideas and construct their own knowledge. Thus, the
pedagogical purpose upon which the use of computer-based programs is founded has to
be clarified if the language teachers' goal is to ensure the success of the computer-based
writing experience (Chen & Cheng, 2006). Such writing programs were identified as
"cost effective ways of replacing or enhancing direct human input." (Ware &
Warschauer, 2005, p.5). Doughty and Long (2003) suggest that the development of
CALL programs should be based on the needs of its users (i.e. the students/learners)
(Doughty & Long, 2003).

Warschauer (1997) states that electronic literacies which are supported by the use
of electronic media (i.e. the computer and the Internet), encompass the acts of reading
and writing through the use of skills and strategies that promote interaction and communication. He identifies three types of electronic literacies: Information literacy, Computer-Mediated Communication (CMC) literacy and multimedia literacy. The first type allows Information and Communication Technology (ICT) users to browse the Internet to pick up information and analyze them critically in terms of relevancy and appropriacy. The second type enables ICT users to use the Internet as a tool to exchange e-mail messages and satisfy their needs in an interactive context. The third type allows the computer users to combine different media (text, audio, video, graphics, etc.) with links and tools in order to interact, convey information, communicate and produce texts on the Internet (Ancker, 2002). “The Internet is entering classrooms at a faster rate than books, newspapers, magazines, movies, overhead projectors, televisions, or even telephones” (Leu, 2000, p. 3). The Internet is a medium through which the language instructors and their students are expected to use their creativity and imagination while practicing the target language (Windeatt, Hardisty, & Eastment, 2000). It is used as a powerful tool for information since it allows the teachers as well as the students to access the huge range of teaching and learning material available online (Windeatt, et al., 2000). It is also used as a means of authentic communication since it gives the students all over the world the chance to converse with each other (Windeatt, et al., 2000). The Internet and the World Wide Web (WWW) are two related terms that cannot be used synonymously. There is a slight difference between the two. The former is perceived as a broad communication system that people hook up to and it enables ICT users to navigate the WWW which constitutes a significant part of it (Ancker, 2002). Being connected to the Internet intrinsically motivates the language learners and enables them to work at
their own pace to retrieve information and develop their independent language learning strategies after receiving appropriate guidance by the language instructor (Moras, 2001). The use of the Internet might expose the language learners to high-quality as well as low-quality and biased information. Thus, students are expected to use their critical literacy skills and be selective when they retrieve information from the Internet (Moras, 2001; Ancker, 2002). Learning how to search the Internet to locate relevant information to their topics of study is one of the skills that have to be mastered by all the students who are asked to use the Internet throughout the completion of specific tasks (Burns, et al., 2002). Locating useful information on the Net, which is considered to be a challenging task in itself, requires any individual to use his research skills and critical judgment (Mohr, 1998; Windeatt, et al., 2000; Warschauer, 2000). However, the success of the Internet-based activities cannot be ensured unless they are designed around a meaningful real-life purpose (Warschauer, 2000). Besides, the Internet provides the students with a chance to design and write meaningful projects and share them in private (i.e. with their classmates) as well as in public (i.e. with online communicants from different parts of the world) (Moras, 2001). The use of the Internet tends to improve students' lifelong skills. They can negotiate, persuade, clarify meaning and ask for further information if needed via the Internet. They can develop their cultural awareness and intercultural communication of the target language by participating in online activities that enable them to experience the language in its authentic use and/or context (Warschauer, 1996; Moras, 2001; Kremenska, 2006). Moras (2001) suggests that shy students who are given time to participate in online activities seem to benefit from the use of the Internet since it is based on texts that can be exchanged through chatting, e-mailing and/or class conferencing.
Computer users tend to deliberately make errors in order to economize typing, mimic spoken language features, and express themselves creatively (Herring, 2001). Their linguistic structure frequently contains features of orality since they demonstrate an ability to adapt the computer medium to their expressive needs (Herring, 2001). Thus, the synchronicity of computer-messaging systems affects the structural complexity of the language and prevents the language learners from developing their academic literacy skills (Herring, 2001; Ancker, 2002).

Warschauer (2000) identifies five reasons for using the Internet in the English language classroom: authenticity, literacy, interaction, vitality, and empowerment. He claims that the Internet exposes the language learners to a wide array of authentic material, engages them in authentic communicative situations, and enables them to publish their authentic products. Moreover, he believes that the integration of technology in the English language classroom helps the learners master the skills which promote not only their academic but also their professional success (i.e. reading, writing, communicating, researching, and publishing). In his view, the use of the Internet provides the students with opportunities to interact with native and nonnative speakers of any language at any time, thus develop their language fluency. The successful integration of the Internet in the language classroom depends on the instructional approach(es) that is/are used by the teacher (Warschauer, 2000). He rejects the notion of teaching English for No Obvious Reason (i.e. TENOR.) since it overwhelms the students with rote memorization of grammar rules and decontextualized vocabulary terms. He supports the integration of the Internet in the language learning process due to the vitality and motivational element that such medium encompasses. According to Warschauer (2000),
mastering the Internet skills tends to develop the teachers as well as the students’ confidence and personal power. It promotes their autonomous lifelong learning skills that enable them to locate any topic they are interested in and collaborate with individuals around the world in order to meaningfully construct their knowledge base and develop their cross-cultural learning skills. Moreover, students can get in touch with many interactants who belong to different age groups, socio-economic levels, and who have different learning abilities (Barker, 1990).

El-Hindi (1998) states that “being literate involves integrating reading and writing, navigating through information sources, discriminating between important and unimportant information, responding to e-mail, or engaging in electronic chats sessions” (p. 694). However, the productive use of the Internet cannot be maintained unless the teachers’ and students’ exploitation of such information and communication tool is monitored (Windeatt, et al., 2000). A critical issue emerges when it comes to the use of the Internet by students: Censorship. Software programs can be installed on the students’ computers so they become allowed to access specific sites rather than a wide range of unreliable and non-professional ones (Windeatt, et al., 2000).

Modern theories of writing consider the writing act as a process that underlies multiple steps (i.e. brainstorming, discussing, revising etc.). In such process, the teacher takes the role of a devoted/active reader and an informed assistant rather than a firm judge who only evaluates the students’ created products (Barker, 1990; Warschauer, 2000). Therefore, the teachers should be aware not to interfere when the students are working at the computer unless they were asked for assistance. However, this doesn’t frequently occur especially if the students’ computer works habits were well-developed
and the computer-based activity was well-designed and planned (Windeatt, et al., 2000). The teacher’s role while the students are on-task is to monitor their discussions as well as their progress throughout the accomplishment of the task (Windeatt, et al., 2000). Electronic writing conferences, held by e-mails can assist students’ writing process. However, electronic conferencing about writing has its advantages and drawbacks (Warschauer, 2000). In a study that compared face-to-face communication with electronic writing conferences held by learners of French, Shultz (2000) found that students responded to electronic feedback by making more changes in their writings whereas those who were involved in face-to-face and in-depth discussions made global changes.

Based on the “dual immersion” framework suggested by L. Opp-Bekman (Warschauer, Shetzer, & Meloni, 2000, p. 87) language learners must be immersed in learning situations that promotes the simultaneous development of their language learning as well as their technology skills. Under such circumstances, the role of the teacher is to well-structure and support the language learning experience (Warschauer, 2000). English language teachers are invited to get rid of traditional roles based on an authoritative model that stresses the product rather than the process of writing, with the teachers controlling the classroom atmosphere, assigning tasks, and evaluating learners’ performances (Barker, 1990). Warschauer (2000) states that the effective integration of computers into the language curriculum promotes the achievement of the concept of the “dual immersion.” The integration of computers in the educational field cannot just be limited to the ordering of the hardware and software. A well-defined curriculum based on a pedagogical approach has to be designed (Ancker, 2002). The integration of computer-
based activities into the language classroom structure has to be carefully executed without neglecting the goals of the target language curriculum (Warschauer, 1996). Educational technology has to be used in a way that suits the pedagogical goals of the teacher, the physical conditions of the language learning classroom and the individual characteristics, needs and interests of the language learner (Ancker, 2002). Teachers should no longer force the students to go into the computer lab with no pedagogical purpose in mind, sit and passively receive information. They can instead encourage the students to create with technology by engaging them in active and constructive situations that would empower them technologically (Ancker, 2002). The computer lab should be considered as a production lab since it is a site that students visit to produce work of good quality (Ancker, 2002). Studying a language can take place at any moment and in any place (e.g. computer lab, home etc.). This convenience factor constitutes an advantage especially for individuals who have difficulty in gaining access to language resources (e.g. language teachers, instructional materials etc.) (Xie, 1999). Garrett (1991) notes that "the use of the computer does not constitute a method. Rather, it is a medium in which a variety of methods, approaches, and pedagogical philosophies may be implemented" (p. 75).

The rapid development of computers during the last two decades has created new opportunities for ESL teachers and students to meet respectively their professional and learning needs. If the ESL teachers aim at developing students’ high-order thinking skills and mental schemes, they are expected to start integrating the use of computers in their daily classroom routines (Yunus, 2007). According to Stannard (2007), computers are tools that facilitate students’ active construction of knowledge since they can immerse
them in learning situations that require them to act as material researchers and analysts. Sharma (2007) perceives the computer as a tool that provides the students with opportunities to practice the language and receive feedback in areas that require a straightforward yes/no answer whereas Dodigovic (2005) considers the computer as a powerful learning aid and a medium that can provide remedial instruction that can detect and correct student' productive skills' errors. Many people assume that working on the computer is considered to be a solitary activity that tends to reduce students' social interactions (Burns, et al., 2002). Others believe that the use of the computer to accomplish specific projects is quite beneficial since students tend to support each other in a spontaneous way (Dwyer, 1994). To ensure students' effective use of computers, computer-based activities must be carefully planned. In other terms, teachers must engage students in a preparatory stage that would help them understand the purpose of the computer-based activity before allowing them to start using the word-processing program or any other computer application (Burns, et al., 2002). From a language learning perspective, word processing software, grammar and spelling checkers etc. are considered as tools that support and facilitate students’ cognitive construction of knowledge (Chan, 2006).

Franklin (2007) who reported on the current state of computer use at the elementary level found out that computers were used for administrative and preparatory purposes rather than instructional student-centered activities. Burns, et al. (2002) argue that computers are used more frequently than ever before at the elementary school level. However, there is a need to increase the number of computers that are available in every elementary school since every single student has the right to spend quality time working
on the computer each day (Burns, et al., 2002). The complex learning processes that students go through tend to be facilitated by the use of different cognitive tools like technology along with CALL materials (Chan, 2006). However, real-life teaching approaches should never be replaced by the use of technology in the classrooms (Childers, et al., 1998; Moss & Southwood, 2006). Instead, technology should be carefully integrated with existing instructional methods so that learners benefit from the learning experience (Moss & Southwood, 2006). Technology will not be effectively integrated in the language learning process and learners will not be appropriately assisted throughout the language learning experience unless both the student and the tutor negotiate with each other the approach that can best improve the quality of this experience (Moss & Southwood, 2006). Besides, teachers are held responsible for the ethical uses of computers in their classrooms. In other terms, computer software have to be carefully designed and selected by taking into consideration students’ different learning styles, abilities, and needs (Schwartz, 1990). The roles of the teachers should not overlap with the use of the technological devices (Sharma, 2007). Computers should not imitate teachers’ bad instructional techniques that emphasize the use of drill-and-practice exercises (Barker, 1990). Moreover, teachers should not believe that the use of technology in their classrooms is more essential than their interactions with their students throughout the process of writing (Childers, et al., 1998).

The Development of CALL

CALL is a process in which language learners use computers and as a result improve their language skills (Beatty, 2003). Chiu (2005) stated that computer applications encompass word processing software, computer games, CMC, WWW, and
Personal Digital Assistants (PDA) etc. Kern and Warschauer (2000) pointed out that the history of CALL is divided into three distinct stages (behaviorist, communicative, and integrative) based on the development of major CALL software. Each phase matches a specific technological level and corresponds to relevant pedagogical theories (Kern & Warschauer, 2000). Chiu (2005) noted that one cannot understand the history of CALL unless it is connected with that of linguistics that consists of three language learning approaches: structural, cognitive, and socio-cognitive approach.

In the 1960s and 1970s, CALL programs were based on a behaviorist learning model and a structural learning approach. Programmed Logic for Automatic Teaching Operations (PLATO) program that was launched at the University of Illinois was used as a tutor that provided students with drill-and-practice exercises, and offered a non-judgmental feedback (Levy, 1997; Lee, 2000; Moras, 2001; Beatty, 2003). Drill-and-practice exercises provide learners with individual instructional moments that allow them to work at their own pace on an individual basis (Lerner, 1998).

Structural approaches to language teaching were promoted by experts such as Bloomfield, Fries, and Lado who were influenced by behavioral psychologists such as Watson and Skinner. The drills helped students produce correct answers since learning was structured and perceived as a habit formation (Kern & Warshauer, 2000). In the 1980s, Hyper-Card was used as CALL software that gave students the opportunity to create their CALL activities through the use of a set of virtual index cards. It was based on cognitive/constructivist views of language learning and a communicative learning theory. The computer was used a tool that can be controlled by the language learner who is expected to solve the problematic situations in which he/she was immersed and end up
constructing his/her understanding based on his/her sets of preexisting knowledge. The
cognitive approaches to language learning were pioneered by Chomsky's (1965)
Transformational-Generative Grammar and Krashen's (1982) five hypotheses of
language learning. From 1990s to the present, teachers adopted a socio-cognitive view to
language learning and an integrative learning model. Two major technology-based
innovations, CMC and WWW seemed to be used by learners as media for meaningful
language learning. Within such interactive and authentic language learning environments,
the students were used to communicate with each other via electronic mail and access a
large repertoire of language resources through the WWW (Kern & Warshauer, 2000).

Computers have been used as a tool for teaching since 1960. However, such
machines were used more frequently for language learning in the early 1980s since they
were more available and language educators afforded to purchase them (Windeatt, et al.,
2000). At this early stage, the use of CALL programs was for the purpose of game
playing, words and sentences manipulation, testing, and providing the students with
feedback (Windeatt, et al., 2000): CALL programs consisted of activities that gave the
students the chance to answer more than once until he/she gets his/her answer right
(Windeatt, et al., 2000). Moreover, such programs encouraged language learners to take
risks since nobody would know whether or not they answered correctly (Windeatt, et al.,
2000). In the 1970s and 1980s CALL was considered as a specialized field that attracted
the attention of a minority of educators interested in the use of computers (Warschauer,
2000). In the 1990s, the Internet as well as the integration of computers in the language
learning process became popular (Warschauer, 2000). Multimedia software as the CD-
ROMs emerged in the early 1990s as well. Many language teachers relied on such
commercial products in their classrooms since they were reliable and produced by experts in the field of language education (Wincett, Hardisty, & Eastment, 2000). Schwartz (1990) claims that computer program designers have to develop instructional software that enable students to receive accurate and humane feedback that would motivate the learners to perform better.

The developmental stages of CALL are interrelated to those of the computer and influenced by the major advances in the field of technology (Lasagabaster & Sierra, 2003). The use of technology in an appropriate way as if it is an invisible process reflects the notion of normalization (Sharma, 2007). The notion of ‘normalization’ which is considered as the future developmental stage of CALL, has to be emphasized. Normalizing the use of CALL is reflected in the integration of the computer in every aspect of the teaching-learning process besides the use of coursebooks. For the normalization stage to be facilitated, the implementation of CALL has to take place in schools that are technically equipped and encompass a range of well-trained professionals who are able to assist the students throughout the learning process (Bialo & Sivin-Kachala, 1996; Loannou-Georgiou, 2006).

A wide range of studies has reported on the beneficial aspects of CALL in the language learning process. However, only people who recognized the educational value of using the computer demonstrated a willingness to use such technology-based innovation known as CALL (Dodigovic, 2005). The success of an innovation like CALL depends on its efficiency in teaching the target language, its degree of consistency with some aspects of the traditional classroom (e.g. perceiving the teacher as a role model), the
extent to which it is user-friendly and available, and its users' successful or failing experiences after its use (Salaberry, 1996; Wresch, 1993).

The Use of CALL to Write in the ESL Classroom

Nowadays, writing is perceived by many language teachers as a process (Solomon, 1986; Leu & Kinzer, 1999; Gambrell, Morrow, Neuman & Pressley, 1999). However, language learners are not easily engaged in this process for several reasons. Many teachers wonder about the best instructional techniques that can be used to support ESL students' proficiency (Fitzgerald, 1994). The computer is used as a tool that promotes an interactive environment and gives ESL learners the chance to work at their own pace to provide a piece of writing that communicates an authentic purpose for a target audience (Fitzgerald, 1994; Kang & Dennis, 1995).

The writing processes that second and native language learners go through are almost similar. They consist of prewriting, writing, revising, editing and publishing (Pennington, 1989; Leu & Kinzer, 1994; Gambrell et al., 1999). However, Silva (1998) pointed out that L2 writer's texts are "less fluent (fewer words), less accurate (more errors), and less effective" (lower holistic scores) (p.668). For this reason, L2 learners should be closely monitored to better develop their writing skills. The computer can be used as a technological device that promotes L2 learners' interactions, encourages them to take risks not only while using the internet but also while using word processors and educational software. The use of word processors, educational software and the Internet are considered as valuable tools in teaching writing for language learners (Solomon, 1986; Merrill, Hammons, Vincent, Reynolds, Christensen & Tolman, 1996; Owston & Wideman, 1997). The use of word-processing software helps the students develop not
only their creative writing skills but also their functional writing skills that would help them produce better research reports. Word-processing software save students’ time especially throughout the processes of editing and revising their computerized writings. This is due to the software’s special features (e.g. moving around words, sentences, and paragraphs with a few clicks etc.). Through the use of such software, students demonstrated a willingness to review their written products in terms of content, organization, and mechanics. Using a word processor impacts the students’ writing behavior in terms of the writing quantity as well as quality (Barker, 1990). Word-processing software free the young learners who put a great deal of effort to present a perfect handwriting from recopying long passages. Students who are allowed to use the computer to accomplish a creative writing task tend to write more and express a less-threatening attitude toward the processes of revising and editing (Burns, et al., 2002). Barker (1990) made a distinction between the uses of typewriters and word processors. He claims that typewriters are mainly used to record the writing drafts and make the written texts more legible whereas word processing software are essentially used to support the cognitive processes that students go through throughout the process of composing. He concludes that the computer has a great potential over the use of a typewriter. However, students have to act as decision-makers even when they use word-processing programs. They have to decide for example whether or not to include a specific word in their passage since the dictionaries and thesauruses which are parts of every word-processing program’s features, are not designed to serve this purpose (Burns, Roe, & Smith, 2002).
The integration of technology in today’s language classroom practices has positively influenced the students’ linguistic development (Bialo & Sivin-Kachala, 1996). One of the main qualities of CALL programs is that they develop the students’ autonomous learning skills since they allow the users to regulate and control their anxiety level by working at their own pace and time (Stepp-Greany, 2002; Lasagabaster & Sierra, 2003; Jung & Kim, 2004). In addition, it is assumed that the use of such programs would not lower users’ motivational level even in a situation where mistakes were repeatedly committed (Lasagabaster & Sierra, 2003). The complex functional features of most CALL programs are facilitated by the easy-to-manipulate display. Therefore, program users who do not benefit from the computer-supported experience will be blamed for their inability to use the program rather than its level of difficulty (Lasagabaster & Sierra, 2003). The use of CALL programs as learning tools that can be easily accessed enables its users to carry out a variety of tasks outside the regular classroom setting under flexible conditions. However, the tasks cannot be successfully completed unless students as well as teachers are both aware of and familiar with the multifunctional characteristics of particular software programs (Lasagabaster & Sierra, 2003). According to Tella (1996, p. 6), the teachers’ role within a student-centered classroom climate is to act as a “guide on the side” rather than a “sage on the stage”. He/she has to assist students throughout the process of organizing their projects and providing them with appropriate instructions that would help them accomplish successfully their project-based activities (Tella, 1996).

The use of word processors is crucial in the language learning process, especially in teaching the writing skill (Lam & Pennington, 1995). The word processor is a multifunctional writing tool that has a wide range of applications and can transform the
traditional product-oriented writing act into a cooperative process-oriented one (Lam & Pennington, 1995). The use of word processors in the process of composing reflects their flexible features that are usually absent in paper-and pencil writing processes (Barker, 1990). Earliest research on computer-based writing has deemphasized the need to perceive the process of writing as a creative and socially-constructed activity (Herrmann, 1990). However, the latest/current research on the use of computers in the language learning process has stressed the need for collaboration in the creation of a written product. According to Butler and Cox (1992), when first-grade students are given the chance to work in pairs in order to write stories on the computer, they end up tackling not only the different aspects of the language (e.g. language usage, spelling, punctuation etc.) but also the mechanical aspects of using the computer. When students work in pairs on the computer, the pressure of using the technological tools get reduced since they tend to assist each other in different ways throughout the completion of the task (Burns, et al., 2002). Windeatt, Hardisty, and Eastment (2000) supported the notion of working in groups at the computer even in the presence of one computer for every student. They claim that having the students sit in such a way during problem-solving activities facilitate but does not guarantee their exchange of opinions (Windeatt, et al., 2000). Using word processing software has an impact on both the quantity and quality of the learner’s writing. Moreover, students who write with a computer tend to edit and revise more their writing, which enhance the quality of their passages (Goldberg, et al., 2003). Bialo and Sivin-Kachala (1996) pointed out that the use of word processing software in the teaching of the writing process allows the language learners to produce written texts of high quality. Kozma (1994) assumes that understanding the impacts of the computer
on students’ learning cannot be developed unless one understands the ways in which the computer’s capabilities are being used. In her qualitative literature review that reveals the word processing-writing connection, Cochran-Smith (1991) found that the use of word processors in itself does not influence the students’ writing quality. The use of word processors improves students’ writing quantity since it enables them to produce long and neat texts that are free of technical errors (Cochran-Smith, 1991; Lam and Pennington, 1995). Lam & Pennington (1995) found that the use of word processing software to develop the writing skill enables the users to pay careful attention to the process rather than the product of writing. The format and the neatness of the printed version of a paper facilitate the process of exchanging, sharing, and evaluating it among class and home members (i.e. student-teacher, student-student, and student-parent) (Lam & Pennington, 1995). The features in most word processors tend to diminish students’ behavioral problems and increase their attention span (Lam & Pennington, 1995). Moreover, they encourage them to free-write in the target language, revise their draft more frequently, and manipulate their ideas quite freely (Lam & Pennington, 1995). Williamson and Pence (1989) state that “word processing facilitates the dump of human memory into electronic memory, freeing the student writer to focus upon the more global element of composing typical of the expert writer” (p.122). Furthermore, it develops the students’ ability to concentrate, especially those who do not prefer to write by hand. In addition, it develops their caring attitudes toward the writing tasks since the use of such programs enables them to polish their work by changing few things and proofreading it (Moss & Southwood, 2006).
According to Ancker (2002), CALL consists of two major components: the language learning software and the Internet-based learning activities. He recommends that the traditional as well as the communicative aspects in language learning activities have to be combined in the language learning software. Word processing packages cannot be effectively used and the writing skills cannot be developed unless the software users are instructed on the stages that are involved in the writing process (Lam & Pennington, 1995; Ward & Mulholland, 2006). A word processor cannot teach a student how to write an essay, but teachers can (Lam & Pennington, 1995). It is their responsibility to demonstrate specific writing strategies before allowing the students to use the computer to write and show them how the word processor can be used as a tool that facilitates the writing process (Lam & Pennington, 1995). Therefore, the role of the teacher is to support the learning process by creating positive learning opportunities that allow the students to interact meaningfully with the available piece of technology (Warschauer, 1996; Ward & Mulholland, 2006).

Schwartz (1990) claims that the optimal time for teaching individuals the basic computer skills such as typing is when they are still young so they would concentrate on developing their thoughts rather than their keyboarding skills when they become older, and thus feel more comfortable and skillful. Students who belong to different age groups can hold positive attitudes toward the use of word processing software as long as their keyboarding skills are developed adequately and the writing activities they are engaged in are appropriate to their age (Goldberg, et al., 2003). Ward & Mulholland (2006) state that CALL technologies have to be learned. English language teachers have to be exposed to the wide range of CALL software and should be held aware of their advantages and
drawbacks (Ward & Mulholland, 2006). They have to explore the value behind designing instructional CALL activities that are tailored to the language learners’ specific needs (Ward & Mulholland, 2006). Language teachers have to be trained on how they can best incorporate CALL technology into their writing classroom practices by attending professional development sessions that demonstrate the usefulness of implementing such innovative teaching approach (Ward & Mulholland, 2006).

Computer media support learners’ different abilities since they provide them with interactive assistance and cognitive tools (e.g. word explanations, grammar rules’ information, task-processing hints and strategies etc.) that can be used on demand (Chan, 2006). Computer-based writing software are currently used as tools that support the language learners’ writing process. CALL materials which provide instantaneous feedback can develop students’ cognitive processes by encouraging them to self-correct and therefore self-assess their own learning strategies (Chan, 2006). Such programs are equipped with a pre-programmed essay evaluation tool that can report grammatical mistakes and assess the quality of the essay in terms of content and organization. Furthermore, the programs’ writing and editing features facilitate students’ writing process (Chen & Cheng, 2006). Language instructors whose approach in teaching writing is based on the use of such programs are not expected to waste their time correcting and providing comments on students’ essays. Instead, they are supposed to focus their attention on other writing tasks that engage language learners in beneficial writing experiences (Chen & Cheng, 2006). However, Oladejo (2005) insists that the use of electronic graders would never outperform or replace human graders who are supposed to examine different aspects while correcting students’ writings, provide understandable as
well as clear comments and interact with the learners during the post-grading phase. Consequently, computer-based writing programs have to be used as a supplement to the teaching of the writing process (Chen & Cheng, 2006). For this reason, the language instructor has to be technologically competent especially if he/she was expected to facilitate the teaching of writing through the use of computer-based writing programs (Chen & Cheng, 2006). Finally, reminding the young writers of the importance of defining their audience is crucial in developing their composition skills (Garthwait, 2007).

**CALL and Motivation in the English Writing Classroom**

To learn and to be motivated are two acts that reflect two interrelated concepts respectively: learning and motivation. Learning can occur even in the absence of the motivation feature. However, the learner cannot perform the skills he/she has learned unless he/she is motivated (Liu & Johnson, 1998). Pintrich and Schunk (1996) distinguished between two types of motivation that can maintain the learning process: intrinsic and extrinsic motivation. "Intrinsic motivation is motivation to engage in an activity for its own sake; extrinsic motivation is motivation to engage in an activity as a means to an end" (p. 284). Learners tend to rely more on their intrinsic motivation to achieve better learning goals. "Students intrinsic motivation can be affected by four sources: challenge, curiosity, control, and fantasy" (Pintrich & Schunk, 1996, p. 285). In order to sustain students' intrinsic motivation, the teacher has to design language learning environments that reflect the presence of the four elements (Pintrich & Schunk, 1996). The young learners seem to be intrinsically motivated and excited to use and make sense the available technologies (Hamilton, 2005). On the other hand, extrinsic motivation
seems to be related to external factors that cannot be controlled by the students such as being rewarded or punished for performing an action, taking an exam, in addition to the pressure that is imposed by the society on the learner. There should be a balance between students’ extrinsic and intrinsic motivation for the maintenance of a well-balanced learning process (Pintrich & Schunk, 1996).

Several studies have found that engaging the language learner in motivating and challenging language learning activities help him/her build self-confidence, self-esteem and autonomy (Kenning & Kenning, 1983; Brandl, 2002). Many other studies point out that the integration of computers within school curricula will change students’ negative attitudes toward the writing process (Trush & Trush, 1984; Solomon, 1986; Marc Arthur, 1999; Leu & Kinzer, 1999; Gambrell et al., 1999). The use of word processors tends to motivate student writers to collaborate in a computer lab setting (Barker, 1990). Based on Edinger’s (2002) study, fourth graders who were involved in a writing workshop using inexpensive word-processing programs, demonstrated a willingness to revise their research papers and to produce multiple drafts of their written products. The program’s special features (e.g. the spelling checker and the dictionary) helped students adopt such positive attitudes toward writing on the computer and enabled many of them to write enthusiastically while using the computer (Burns, et al., 2002).

Stepp-Greany (2002) reports that the introduction of technology in the language classroom tends to increase students’ motivation, improve their self-concepts, and develop their higher-order thinking skills. The highly-motivated attitude some foreign language learners hold when they are immersed in CALL experiences, is due to the use of the computer as a motivating device (Kulik & Kulik, 1991; Lam & Pennington, 1995;
Warschauer, 1996; Lasagabaster & Sierra, 2003). Moreover, the attitude of special needs students toward language learning might get improved through the use of computer technology (Bialo & Sivin-Kachala, 1996). Windeatt, et al. (2000) state that the use of computers in the language classroom is quite motivating for the students. In their opinion, language learners exhibit a high motivational level whenever they use the computers. They believe that students’ expression of such motivational attitude is due to the novelty of the medium. However, they maintain that students’ motivational attitude will not last unless the computer-based activities they are involved in, underlie a language learning purpose and are designed in a way that follows a pedagogical approach (Windeatt, et al., 2000). Moss and Southwood (2006) hold that students seem motivated whenever they have a research task to accomplish using the Internet. However, they perceive the use of the Internet as demotivating factor since it might overwhelm the students with the wide range of information it presents. For this reason, teachers have to plan carefully the Internet-based activities that they like their students to get involved in by specifying the reliable sites that can be used throughout the learning experience (Moss & Southwood, 2006). Moss and Southwood (2006) assume that the learners’ motivational level when they work at the computer is much higher than when they are given a printed worksheet (Moss & Southwood, 2006). Moreover, they state that individual or collaborative computer-based learning activities promote learners’ independence (Moss & Southwood, 2006). In addition, publishing students’ work on the Internet is considered as a motivational factor that encourages the learners to show what they can best do in terms of work quality (Moss & Southwood, 2006).
Based on Dornyei’s dynamic model which is reflected in the Action Control Theory, the process of motivation in Computer-Assisted Autonomous Language Learning (CAALL) cannot be achieved unless five conditions are fulfilled. For a language learner to be motivated, his/her state of the mind has to exhibit a willingness to develop a foreign language, take and maintain the initiative to work, persevere until the task is accomplished, regulate and assess his/her work through interactions with computer-based tools, peers or tutors, and finally renew his/her learning experience (Dornyei, 2001). The motivational process can be influenced by two types of factors: internal and external. The internal factors are related to the learner’s characteristics whereas the external factors are linked to the learning environment in which the language learner is immersed. Such environment consists of the instructors’ teaching styles, the nature of the task, the instructional tools used, the evaluation strategies etc. (Raby, 2007). In his triangular study on students’ practices in CAALL, Raby (2007) distinguished between two notions that are considered as part of the internal factors’ category: the integrative and the instrumental motivation. She reports that integratively motivated learners are those who demonstrate an enthusiasm toward studying the language to satisfy their personal interests and successfully maintain a highly motivational level. On the other hand, instrumentally motivated learners are those who study the language to fulfill environmental demands like pleasing a parent or a teacher (Raby, 2007). The communication that takes place between different interactants (i.e teacher-student, student-student) can impact the process of motivation. In addition, the use of successful learning strategies can positively influence the motivational level of the learners since learning strategies and motivation are two interrelated variables (Dornyei, 2001).
The development of students’ ESL skills cannot be guaranteed unless they are motivated, adopt a suitable attitude toward the target language, are present in a non-threatening atmosphere, and are taught the language in a way that fits their cognitive, social, and emotional needs (Dodigovic, 2005). Moss and Soutwood (2006) suggest that learners who make use of technology in their English for Speakers of Other Languages (ESOL) classes are constantly engaged, encouraged, and motivated to attain success (Moss & Southwood, 2006). The use of computers to write in the language classroom appears to motivate students especially those who maintain a reluctant attitude toward writing. These students developed a willingness to be actively involved in computer-based writing activities (Yackanicz, 2000). However, the production of high-quality work cannot be ensured unless students are motivated and enthusiastic about the task at hand. For this reason, teachers are expected to give students the chance to have a say in choosing the topics they seem to be interested in and provide them with useful instructions and directions on how they are supposed to exploit their time productively in order to accomplish the assigned computer-based activity and produce high-quality products (Ancker, 2002).

Using a word processor to write in the language classroom is considered as a novel way that motivates, stimulates and excites the students to deliver their inner thoughts via an electronic keyboard (Lam & Pennington, 1995).

**Barriers to Using CALL**

Besides the positive effects of word processing software on the writing process of language learners, one cannot overlook their negative effects. The lack of keyboarding skills might prevent students from producing a written work within a limited period of
Some students experience frustration and feel distracted by the use of word processors since their keyboarding skills might not be well-developed. It was reported that providing fourth graders with formal keyboarding instructional sessions might not have an everlasting effect on the development of their typing skills and therefore their writing ability might be lowered (Lam & Pennington, 1995). Students who use word processors to develop their composition skills might revise their electronic versions locally rather than globally, focus on the format rather than the content of their writing, and emphasize the quantity rather than the quality of the final written version (Lam & Pennington, 1995).

Some computer programs might display activities that lack the interactional feature that the language development process is mainly based on, and thus impede the establishment of authentic communication (Lasagabaster & Sierra, 2003; Brine & Franken, 2006). Other CALL programs might be considered as boring since they include a wide range of activities that are based on traditional strategies of language teaching and learning (Lasagabaster & Sierra, 2003). Designing computer programs that emphasize the development of specific language skills while overlooking others poses a problem too.

The computer can detect and correct students’ errors in their productive skills (Dodigovic, 2005). Another barrier to the use of CALL is reflected in the use of software programs that lack the error correction feature which provides the users with a comprehensive, accurate, and detailed feedback (Lasagabaster & Sierra, 2003). Chen and Cheng (2006) report that some computer-based writing programs provide unspecific feedback that can increase students’ frustration level and prevent them from improving their revised versions, thus lowering their writing quality in terms of content and form.
According to Miller (2003), students who get immediate feedback on their writing products tend to show improvements in their writing skills (Dodigovic, 2005). Based on pedagogical approaches, the exposure of the language learners to a massive feedback might lead them to feel overwhelmed (Heift, 2003). However, computer-generated feedback has to be accurate in the first place. In other words, the computer software feedback has to display one mistake at a time and the explanations it offers for a specific error has to be concise (Heift, 2003).

Students cannot overcome the pitfalls of using word processing unless they receive proper and purposeful training sessions in writing via a word processor (Lam & Pennington, 1995). They need to understand the functions of particular word processors and recognize how such features can facilitate the writing process (Warschauer, 1996; Lam & Pennington, 1995). They have to be aware of the negative effects of using word processing software so they would be able to avoid them (Lam & Pennington, 1995). According to Pennington (1991) “the degree of success of any application of word processing in an ESL setting will ultimately be determined by the nature of the users and the circumstances of use, rather than directly by the attributes of the medium” (p. 261).

Moreover, the availability of electronic resources such as computers, appropriate CALL programs etc. in class and at home in addition to the technical facilities that include faster telephone lines and/or connectivity have to be controlled (Moras, 2001; Ward & Mulholland, 2006). Teachers and/or students might face technical problems with the computers (Mohr, 1998; Yunus, 2007). ESL teachers consider the availability of a quality technical support as a motivator that encourages them to use the available ICT resources on a frequent basis and help them overcome their anxiety while using such
resources/equipment (Yunus, 2007). Another barrier that can prevent ESL teachers from using ICT resources is the lack of computer training sessions that would help ESL teachers develop their computer literacy skills and thus maintain their confidence in using that technology (Yunus, 2007). The success of the computer-based learning experience depends on teachers’ preparedness (i.e. their computer literacy skills) to handle the use of computers in their classrooms, and especially their familiarity with the use of word-processors (Barker, 1990). ESL teachers should be provided with opportunities to experiment with ICT before allowing them to integrate it within their classroom practices (Yunus, 2007). The technology education coordinator should provide teachers with instructions on how to solve technical-related problems as well as how they can effectively integrate the use of technology into the language curriculum (Crook, 1994; Hoffman, 1997). Training language teachers to master the basic computer skills is not enough if their goal is to develop the students’ critical and creative thinking skills. Teachers’ background knowledge on how they can best integrate technology into the curriculum should be developed in the training sessions (Crook, 1994; Hoffman, 1997). Tutors working in the field of ESOL have to attend professional development training sessions in order to develop new as well as refresh old computer literacy skills (Moss & Southwood, 2006). Since the teaching profession is shifting from the pen-and-pencil writing stage to the word-processing stage, there is a need to organize professional development training sessions that would develop teachers’ word-processing as well as their computer-assisted instruction skills (Barker, 1990). In order to successfully integrate the use of educational technology into the curriculum, elementary teachers should be aware of the barriers that might impede their instructional use of computers in the
classroom and be trained on how they can best overcome such obstacles (Franklin, 2007). Teaching with computers is different than using the computers for personal purposes. However, the teachers’ effective use of computers for pedagogical purposes depends on the development of their basic computer skills (Franklin, 2007). In his literature review section, Franklin (2007) found that the frequency of using the computer at the elementary level depends upon the student’s grade level. In other words, high elementary students (e.g. for drill-and-practice and Internet browsing) tend to use the computer more frequently than low elementary students (e.g. for word-processing and Internet browsing). However, his research findings indicated that teacher preparedness and teaching philosophy are among the factors that would influence the use of computers by elementary teachers as well as elementary students. The use of computers by elementary students depends on the school site’s professionals and staff members, especially the teachers (Franklin, 2007). Teachers have to develop their students’ computer literacy awareness before allowing them to use the Internet for research purposes. In other terms, they should develop their students’ ability to discern between useful and useless material found on Web pages since many Websites are not monitored in terms of the quality of the content they present (Burns, et al., 2002). According to Santerre (2000, p. 37), one of the teachers’ duties is to “help students be critical readers of websites.” In other words, learners should be trained on how to analyze the biases of websites (Warschauer, 2000). Supplying the students with a useful list of reliable Websites that can be used to fulfill the requirements of their computer-based tasks is considered as a beneficial suggestion (Burns, et al., 2002).
The lack of computer access for personal and professional purposes can lower the teachers’ confidence level in using the technological resources and weaken their computer-related competencies (Yunus, 2007). The availability, quantity, and organization of computers were identified among the major barriers to the effective integration of ICT into the ESL teaching and learning processes (Franklin, 2007; Yunus, 2007). ESL teachers’ enthusiasm toward the use of ICT can be reduced by the use of poor quality or outdated hardware (e.g. computers and printers) that can negatively impact the teaching and learning processes. For this reason, purchasing reliable and fast hardware requires the careful attention and awareness of the purchaser (Yunus, 2007).

Many language learners experience feelings of anxiety and frustration when they sit on the computer to accomplish a task and even when they think about using a technological tool like the computer (Matsumura & Hann, 2004). Feelings of anxiety get reduced as the students are immersed in computer-based situations through which they can better practice and develop their computer literacy skills (Yaghi & Abu-Saba, 1998). For this reason, the integration of technology in the language learning classroom should consider the pedagogical implications upon which it is based (Stockwell, 2007). High-anxiety students who exhibit signs of boredom and concentration on the task at hand will underperform their peers with low-anxiety levels (Matsumura & Hann, 2004). Students who seem to be highly-anxious while using the computer need to be assisted more than their low-anxiety classmates (Matsumura & Hann, 2004).

Finally, the integration of networked-computers in the classroom cannot be successfully achieved unless one takes into consideration a wide range of local issues
such as the technical and administrative support, the instructional approaches, and the
existing theories of technology (Blythe, 1998).

Conclusion

The use of computers has invaded the language classroom (Lam & Pennington, 1995). The field of computer-based writing is still in its early developmental stages and it
is not based on a particular pedagogy or theory (Lam & Pennington, 1995). For this
reason, the various aspects of the computer-based composition process have to be
explored more deeply (Lam & Pennington, 1995). The use of technologies has to be
purposeful and effective (Chen & Cheng, 2006). The effectiveness of using technology is
determined by how its users (i.e. language teachers and language learners) are utilizing it
(Chen & Cheng, 2006).

The literature suggests that the use of computers to support the writing process
can motivate the language learner to develop better writing skills. This is due to the use
of word processors, the Internet and educational software that turn the writing activity
into a meaningful one. However, many factors should be considered when incorporating
computer technology into the ESL language classroom. The teacher as well as the
student’s familiarity with the use of the computer and other technological devices is one
factor.
CHAPTER 3

Methodology

This chapter highlights the different methods used by the researcher to collect data and the rationale for using each. Furthermore, this chapter presents the modes by which the gathered data were analyzed.

Proposition/Operational definition of variables

In her study, the researcher considered the following two variables: CALL and motivation to write. The researcher had a proposition instead of a hypothesis since adopting an assumption lays a foundation for the study (Murray, 2003). The researcher’s proposition was the following: CALL motivates fourth grade students to develop their writing skills in the ESL classroom.

In this study, the keywords meant the following:

Computer-Assisted Language Learning (CALL) is any process in which learners use computers and as a result improve their language skills. The application of CALL include word processing, computer games, Computer-Mediated Communication (CMC), the World Wide Web (WWW) etc. (Beatty, 2003)

Motivation is “the process whereby goal-directed activity is instigated and sustained. It is a process rather than a product. As a process, we do not observe motivation directly but rather we infer from such behaviors such as choice of tasks, effort, persistence, and verbalizations” (Pintrich & Schunk, 1996, p. 5)

Writing Process is any process that guides the student through the selection of a topic, understanding its purpose, drafting, editing, revising, and publishing of a finished work. For the purpose of this study, the focus will be on the following steps that are involved the writing process: revising, editing, and publishing (Harmon, 1996)

Research method and techniques

The researcher used a mixed-method (qualitative and quantitative) approach to investigate the effect of using different CALL on students’ motivational level in the ESL classroom to gather and analyze different kinds of data (Fraenkel & Wallen, 2006).
Participants

Three fourth grade ESL class sections were chosen to be part of the study since they include ESL as well as native-English-speaking students who were studying English as a first or second language. The study involved a population sample that consisted of forty-eight elementary students who attended Grade IV at CLS and their four educators whose focus area was the teaching of ESL, except one of them whose main specialty area was the teaching of Information Technology (IT). The students' ages ranged between 9 and 10 years old.

Procedures

The study was conducted over a period of three months from the beginning of February till the end of April. It is important to keep in mind that the aim of the research was not to compare between ESL and native-English-speaking students but to describe the motivation of students when using CALL to write in the ESL classroom.

A purposive sample included the ESL teachers who taught in the three class sections since they can best help answer the research question. The main goal of the researcher was to gather a large amount of information by obtaining purposive and directed sampling (Erlandson, Harris, Skipper, and Allen, 1993). Purposive sampling allowed the researcher to handpick the cases to be included in the sample on the basis of her judgment of their typicality. In this way, the researcher builds up a sample that is satisfactory to her specific needs (Cohen, Manion & Morrison, 2000). A convenience sample included students whose parents signed the Consent and Assent Form. The researcher used convenience sampling by involving the nearest/available students to serve as respondents (Cohen, Manion & Morrison, 2001; Fraenkel & Wallen, 2006).
Data collection methods

Observations, interviews, questionnaires and document analysis were used as data collection instruments. Audio recording was used for the observations and the interviews. Observation

The researcher collected data using non-participant observation. She had a non-participant or passive role as she entered the computer room and observed the students in a natural setting as they are engaged in the writing process that is supported by the use of CALL. The researcher observed individual students as they were engaged in computer-related tasks. She observed also the classroom atmosphere and noted down any major or minor incidents that occurred in the classroom. The researcher only observed the participants of the study, those who were interviewed and asked to fill out the questionnaires. The researcher constructed a checklist to report specific information about the participants (e.g. behaviors, interactions among students etc.).

The field notes were used in this study to help the researcher compare and contrast the data that were collected through the different methods of data collection.

Interviews

The researcher conducted focus group interviews with the student participants in the three class sections of Grade IV. The interviews consisted of open-ended questions that address a specific topic. Interviewing student participants gave them the chance to express themselves orally and make themselves understandable. The focus group interviews conducted with the students enabled them to think of their past and current experiences with the use of the computer as a tool for writing, express their personal feelings regarding a specific question, and initiate a discussion through which they could
present and even debate their viewpoints. The focus group interviews produced a significant amount of findings although the participants shared similar feelings and experiences at some points throughout the interviews.

The researcher met with the teacher participants ahead of time, introduced herself in a friendly way and explained to them the purpose of her study. Then, she conducted an individual semi-structured interview with each one of them. The semi-structured interview consisted of a set of pre-planned questions developed by the researcher and designed to elicit specific answers from the respondents. The interviews were face-to-face and one participant was interviewed at a time. The participants were given the chance to talk freely and express themselves openly. In such context, the interviewee was more knowledgeable than the interviewer whose main concern should be on obtaining a thick description of the interviewees’ personal feelings and relevant life experiences (Erlandson, Harris, Skipper, & Allen, 1993). The inferences that were drawn by the researcher are not subject to bias since the researcher made use of field notes (Rubin & Rubin, 1995).

The researcher avoided asking questions that would provide her with yes-no answers. Whenever she couldn’t understand an answer, she tended to use probes by asking the respondents to elaborate on his/her argument or support it with an example. At the end of each interview, the interviewees were given the chance to add any comment or ask the researcher any question, provided it is related to the topic of the study. Appendix C includes the students’ focus group interview questions that were also developed by the researcher whereas Appendix D includes the teachers’ semi-structured interview questions. The interviews endured for about 45 to 60 minutes. Some interviews lasted
longer than others since some interviewees demonstrated a willingness to talk and to bring out their inner feelings and experiences to the discussion more than others.

**Questionnaire**

The questionnaire was adapted from Assis (2001) thesis. The questionnaire items were administered to the students to collect data from the participants whose perceptions and motivation toward the use of different computer software to develop students’ writing skills was studied. The items addressed the research question. The students’ questionnaire was answered on a five-point Likert scale. Demographic questions related to the participants’ age, sex, nationality, and language were asked at the beginning of the questionnaire (Cohen, Manion, & Morrison 2000). The researcher emphasized the questionnaire’s directions by making the font into bold. To highlight specific terms in the instructions, the researcher underlined them. The use of smiley faces reflected the extent to which students agreed on a specific statement. Employing such design would prevent participants’ confusion regarding the meaning of each of the following words such as “Disagree” or “Strongly Disagree”.

The use of the questionnaire allowed students, especially those who were visual learners, to express themselves freely. The questionnaire was reviewed by the thesis committee members who are experts in the field of ESL, the school principal, and the four participating teachers. The student participants answered the questionnaire during the English language class time. The researcher went over every single item in the questionnaire in order to ensure that students were able to make sense of the questionnaire’s instructions and content. The researcher was present in the classroom when the students were answering the questionnaire. She clarified the meaning of any
word that the students were unable to understand. Filling in the questionnaire took around 10 to 15 minutes.

Document analysis

The researcher collected students’ pieces of writing during the investigation to determine whether or not they support the interview-based data. The students’ writing samples were limited to the context of the study. The samples collected consisted of students’ computer-based writing assignments that were completed in the computer room. The document analysis rubrics were developed by the researcher.

Criteria for using the data collection instruments

Observation was the first source that the researcher used to collect ‘live’ data from real situations since observing participants “allows the inquirer to see the world as his subject sees it, to live in their time frames, to capture the phenomenon in and on its own terms, and to grasp the culture in its own natural, ongoing environment” (Lincoln & Guba, 1985, p. 273). She chose this method because she was aware that it can provide her with data that cannot be obtained via other means. Moreover, the researcher aimed at triangulating her findings with those obtained from other means of data collection (Fraenkel & Wallen, 2006).

Field notes were used by the researcher since they allowed her to record her own thoughts as a result of the participants’ comments (Lincoln & Guba, 1985). According to Rubin and Rubin (1995), field notes were used since they were more accurate to account for any event at the time of its occurrence and since they allowed the researcher to witness and document many factors as possible.
Conducting interviews with the participants enabled the researcher to analyze their verbal data and take into account the situation in which they were immersed as well their nonverbal behaviors, feelings, and thoughts (Patton, 1990; Bourque & Fielder, 1995; Fink, 1995). Bers (1987, p. 19) defined the concept of focus group interviewing as "a qualitative research technique in which a small number of respondents—generally eight to ten—and a moderator participate in an unstructured group discussion about selected subjects" (p. 19). Based on Bers’ (1987) recommendation regarding the act of conducting focus group interviews, the researcher included a minimum of 8 and a maximum of 10 students in one group. During the focus group interviews, the researcher’s role was a mediator. The focus group interviews revealed the students’ personal experiences with the use of CALL in the ESL classroom (Cohen, Manion, & Morrison, 1994). According to Gay (1996), the main purpose of the individual semi-structured interviews conducted with the teacher participants is to gain in-depth information about the teachers’ personal thoughts regarding a particular issue discussed under a specific question. The researcher used an audio-recorder during the interviews in order not to lose track of the data. Moreover, it was assumed that the act of recording the interviews tends to ensure the researcher’ fidelity (Lincoln & Guba, 1985). The term ‘fidelity’ is defined as “the ability of the researcher to reproduce the data previously obtained as they become important in providing insights” (Lincoln & Guba, 1985, p. 84).

The reason behind choosing to use a questionnaire as a data collection instrument is the fact that questionnaires are considered as means through which the researcher can collect realistic data that reflect the participants’ feelings, attitudes, motivation, etc. (Fink & Kosecoff, 1995).
Document analysis was chosen as a data collection method since it provides the researcher with authentic data that enriches the study (Best & Kahn, 1993). The researcher was interested in collecting students’ writing samples because they illustrate the current educational practices with regard to the use of the computer in the fourth grade ESL writing classroom at CLS.

The researcher strengthened the validity of the study’s findings by employing a number of data collection instruments. To maximize the study’s validity and credibility, she triangulated her findings by using different types and sources of data. Marshall and Rossman (1989) define triangulation as “the act of bringing more than one source of data to bear on a single point” (p. 146). Triangulating the study’s findings along with other modes of data collection allowed the researcher to maximize the validity of her data.

 Ethical issues

The researcher submitted a research letter to the school’s director. The letter described thoroughly the study’s purpose in terms of research approach, sample of participants, duration, and data collection instruments. The letter is included in Appendix H. After getting the school committee’s approval on the way the researcher was going to implement the study, the school director gave the researcher the opportunity to meet with Grade IV students and teachers in order to familiarize them with the purpose of the study. The researcher sat with the school principal as well as the four teachers who asked her to make few changes in the questionnaire items so they would fit the context of the school.

Out of 79 permission letters sent home to be read and signed, only 48 students were granted their parental permission to participate in the study. The three homeroom teachers helped the researcher collecting the Consent and Assent forms. After identifying
the names of the participants and non-participants in her study, the researcher scheduled/confirmed the date, time, and place for her to conduct the interviews with the teachers and students and administer the questionnaire to the students only. The researcher gave the teachers the freedom to choose the date, time, and place that would suit them to conduct the interviews.

The researcher explained the interview’s purpose before she started to collect participants’ responses. Moreover, she acknowledged the importance of the participants’ well-developed answers to the study as well as to the school community. She also explained the need to use an audio recorder during the interviews and some of the observation sessions. The interviewees’ confidentiality was assured throughout the study. The researcher represented every teacher by a pseudonym whereas every student was identified by the letter ‘S’ that indicates the term “Student” and a number that ranges from 1 to 48 (Cohen, Manion, & Morrison, 2000; Fraenkel & Wallen, 2006). Moreover, the anonymous aspect of the target school as well as the different educational institutions that are part of its neighborhood was assured by the use of fictitious names.

The study did not pose any psychological, physical, social, or economic threats to the participants (Fraenkel & Wallen, 2006). All the participants were informed that their participation was voluntary and that they could withdraw at any point (Fraenkel & Wallen, 2006). Furthermore, the researcher assured the participants that the interviews, the questionnaire and the students’ writing samples will be used to fulfill the purpose of the study. The researcher informed the participants that their participation will not affect their grades and make it a point that the class instructor will not have access to the data of the research (Cohen, Manion & Morrison, 2001).
Data analysis

Validity and reliability controls

The researcher used a variety of instruments to maximize the validity of the study. She interviewed and observed the participants, administered the questionnaire to her student participants, and analyzed the students' written samples. The researcher consulted her advisors who are experts in the field of second language learning, to examine the process of the investigation. The observation checklist in addition to the students' and teachers' interview questions, were submitted to an expert advisor who checked them for validity and reliability (Silverman, 2000).

The researcher read aloud the students' questionnaire items and instructions, and made sure that the pupils understood how and what they were supposed to perform (Cohen, Manion, & Morrison, 2000).

The researcher's descriptions of the incidents that took place during the study could threaten the validity of the study since the research might report inaccurate or incomplete data, therefore providing an invalid description. To deal with this threat, the interviewer audiotaped all interviews (Gay, 1996). Moreover, she transcribed the data in verbatim to ensure their completeness. The researcher's descriptions were based on the participants' responses from the interviews, questionnaires, observations, and document analysis. Therefore the possibility of misinterpreting the data was minimized.

A major threat to the study was when the researcher imposed her viewpoints on the interviewees. According to Maxwell (1996), such type of threat to qualitative studies is known as "interpretation". To deal with it and to show that the researcher appreciated others' views, she listened to the participants and believed that she wasn't knowledgeable
about their personal feelings more than they did. Moreover, she listened to them and gave them the opportunity to make themselves clear and understandable so that instances of misinterpretations were minimized (Maxwell, 1996).

The researcher made it a point that the study’s recommendations and implications reflected the data collected at the research’s site.

**Data analysis**

The researcher transcribed students’ and teachers’ interviews as well as the observational data verbatim (Gall, Gall, & Borg, 1999). The researcher read and made sense of the available data. Then she categorized the data in different ways using coding which is the main element in the analysis of data in qualitative research (Darlington & Scott, 2002). In other words, the data collected from the interviews, the questionnaire, and the observations was analyzed by sorting it into categories. Not all the categories created after transcribing the interviews and the observational data matched the categories created to analyze the questionnaire data. Since the sample size was small (i.e. less than 50 participants), the researcher has chosen descriptive analysis as the best method of analyzing the questionnaire (Fraenkel & Wallen, 2006). The questionnaire items covered many variables related to students’ CALL experiences. The mean, median, mode, and standard deviation of every questionnaire item were calculated. The researcher used a statistical analysis software program known as SPSS (Statistical Package for Social Sciences) in order to report the questionnaire’s data in the form of frequency tables and pie graphs. The researcher asked the student participants to provide her with samples of their computer-based written work completed during the computer class period. The
students' written samples were analyzed to check whether they are consistent with the students' interview responses.

This chapter has illustrated the four modes of data collection and identified how each one should be dealt with. The following chapter would portray how the data was analyzed and highlight the findings of the study.
CHAPTER FOUR

Data analysis

The four data collection tools have supplied significant data to answer the single research question: How does the use of CALL in the fourth grade ESL classroom affect learners’ motivation for writing?

Demographic data

Personal information about student participants were gathered using the first part in the student’s questionnaire. Data regarding teacher participants’ years of teaching experience were collected during the individual interviews that were conducted with each. The study’s population consisted of forty eight students (twenty three males and twenty five females) and four female teachers in grade IV. 47.9% of the students were males whereas 52.1% were females. Thirty four (70.8%) were born in Lebanon, six (12.5%) in the United States, two (4.2%) in Brazil and the remaining six students were born in one of the following countries: Canada (2.1%), England (2.1%), Pakistan (2.1%), Iran (2.1%), Abu Dhabi (2.1%), and Saudi Arabia (2.1%). Thirty students (62.5%) were 9 years old, six (9.5%) were 9.5 years old, and twelve (25%) were 10 years old. A large percentage of the students stated that English, Arabic and French were the spoken languages that were used in the country where they were born. Out of the forty eight students, forty three (89.6%), thirty seven (77.1%), and thirty five (72.9%) students stated that English, Arabic, and French were spoken respectively in the country to which they belong. The minority of the students claimed that people in their country of birth communicate using the following languages: Spanish (6.3%), Portuguese (4.2%), Italian (2.1%), Persian (2.1%), and Urdu (2.1%). The four teachers who participated in the study are Lebanese.
One has an Australian nationality. Rana, Rima, and Nour were grade IV homeroom teachers whereas Juheina was an IT teacher in grades IV and V. Rima and Nour have been teaching for twenty years whereas Rana was teaching for the first time in her life. The following section will attempt to answer the study’s research question in light of the different modes of data collection that were employed by the researcher.

Questionnaire

The questionnaire items highlighted the motivational aspects of using CALL to develop better writing skills. They also identified the students’ perceptions and attitudes regarding the use of CALL. Each questionnaire item was analyzed based on its percentage, mean, and standard deviation scores. Nine categories emerged as the questionnaire items were analyzed. Table 1 summarizes the nine categories based on which the questionnaire items were analyzed.
<table>
<thead>
<tr>
<th>Category</th>
<th>Statements</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students’ perceptions of the quality of their computer-based written products</td>
<td>6,8,15,16,18</td>
</tr>
<tr>
<td>2</td>
<td>Students’ perceptions of the quantity of their computer-based written products</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Students’ perceptions of the importance of attending computer lab sessions in developing their writing skills</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Students’ perceptions of the usefulness of the Internet in completing computer-based written products</td>
<td>9,21</td>
</tr>
<tr>
<td>5</td>
<td>Students’ attitudes toward writing on the computer</td>
<td>5,13,19</td>
</tr>
<tr>
<td>7</td>
<td>Students’ attitudes toward using the computer to type a written assignment</td>
<td>17,20</td>
</tr>
<tr>
<td>8</td>
<td>Students’ attitudes toward displaying their computer-based written products on bulletin boards</td>
<td>11</td>
</tr>
<tr>
<td>9</td>
<td>Students’ attitudes toward brainstorming their ideas on the computer rather than on paper</td>
<td>14</td>
</tr>
<tr>
<td>10</td>
<td>Students’ attitudes toward printing out their computer-based written products</td>
<td>10</td>
</tr>
</tbody>
</table>

Items 6, 8, 15, 16, and 18 examined students’ perceptions of the quality of their computer-based written products. 68.7% of the students ("Strongly Agree" and "Agree") believed that the use of the computer to complete a written task enabled them to make more changes in their writings. 18.8% of the total number of student participants ("Neutral") were unable to answer item 6. The mean score for item 6 was 3.8 and its standard deviation was equal to 1.1. This shows that the majority of the students’ had
positive responses to this item but not all of them were consistent since 12.5% ("Strongly Disagree" and "Disagree") believed that the use of the computer for writing didn't allow them to make changes in their writings whereas 18.8% ("Neutral") had no answer to this item. 77.1% of the students ("Strongly Agree" and "Agree") believed that the use of the computer helped them in organizing their ideas whereas 12.5% didn't provide an answer to this item. 4.0 was the mean score for item 8 with a standard deviation of 1.1. This demonstrates that a high percentage of the students responded positively to item 8.

However, the high standard deviation score indicated that the students had different perceptions regarding the use of the computer as a tool that helps them organize their ideas. 60.4% of the respondents ("Strongly Agree" and "Agree") considered the use of the computer as a tool that can help them correct their spelling errors. Yet, 35.5% ("Strongly Disagree" and "Disagree") tended to worry about their spelling errors when they wrote on the computer. The mean score for item 15 was 3.4 with a high standard deviation score that was equal to 1.5. This suggests that the students' agreement level on item 15 was low. 50.1% of the student participants ("Strongly Agree" and "Agree") assumed that they don't worry about the neatness of their writing when they use the computer whereas 47.9% ("Strongly Disagree" and "Disagree") believed that the use of the computer doesn't help them produce written products that are neat. Item 16 had low mean score (X= 3.1) with a high standard deviation of 1.6. This demonstrates that nearly half of the students were in disagreement regarding the use of the computer as a tool that would help them produce products that are neatly written and presented. The majority of the students (95.8%) who strongly agreed or agreed on item 18 reported that the computer helped them in designing and publishing creative products. None of the
participants had a negative response regarding this item since the mean score was very high (X= 4.4) with a standard deviation of 0.5.

Item 7 emphasized students’ perceptions of the quantity of their computer-based written products. 77.1% of the questionnaire respondents (“Strongly Agree” and “Agree”) thought that they had a tendency to write more when they used the computer, but 12.5% believed that using the computer encouraged them to write less. Item 7 mean (X= 3.8) and standard deviation (SD= 0.8) scores indicated that the majority of the students expressed a high tendency to write more on the computer. Yet, 12.5% disagreed on the use of the computer as a tool that would help them write more.

Item 12 stressed the students’ perceptions of the importance of attending computer lab sessions in developing their writing skills. A high percentage of the students (83.3%) either agreed or strongly agreed on the importance of attending computer lab sessions in improving their writing skills. None of them strongly disagreed on item 12. Nevertheless, 10.4% (“Neutral”) were undecided.

Items 9 and 21 revealed students’ perceptions of the importance of the usefulness of the Internet in completing their computer-based written products. The analysis of item 9 indicated that the use of the Internet help the majority of the students (81.3%) in searching for ideas to enrich their writings. Item 9 mean score (X= 4.1) shows that most of the participants had provided positive responses regarding the usefulness of the Internet throughout the completion of a written task. The standard deviation of item 9 (SD= 1.0) proved that some students had a low level of agreement among their responses. Out of the total number of participants, 10.4% preferred to choose “Neutral” as an answer whereas 8.4% (“Strongly Disagree” and “Disagree”) had negatively perceived the use of
the Internet to accomplish a writing activity. Most participants (83.3%) who responded (“Strongly Agree” and “Agree”) to item 21 indicated that their knowledge of using the Internet to complete a written task is well-developed. Their knowledge of using the Internet was rated as 4.2 (X= 4.2). However, a standard deviation of 1.0 clearly shows that some students (8.4%) were unable to positively perceive the use the Internet during a writing activity whereas others (8.3%) provided neutral responses that indicate their lack of ability in using the Internet to fulfill the requirements of a written task.

Items 5, 13, and 19 highlighted students’ attitudes toward writing on the computer. 95.8% of the respondents (“Strongly Agree” and “Agree”) considered the act of writing on the computer as enjoyable and full of excitement. Only two students (4.2%) had a neutral attitude toward writing on the computer. None of the students responded negatively to item 5. This suggests that a high percentage of the sample population had a positive attitude toward writing using the computer especially that the mean score of item 5 is very high (X= 4.6) with a standard deviation of 0.5. The analysis of item 13 which is a reversed statement revealed the students’ positive attitudes towards writing on the computer. 70.9% of the students (“Strongly Disagree” and “Disagree”) felt that their frustration level tend to be low when they use the computer as a tool for writing. On the other side, while 18.8% expressed a high level of frustration whenever they had to write on the computer, 10.4% had a neutral feeling toward writing on the computer. Item 13 standard deviation score (SD= 1.2) indicates the students’ lack of consensus in their feelings toward writing on the computer. The low mean score (X= 2.1) reports that a number of students feel frustrated as they use the computer as tool for writing. Item 19 described the motivational level of the students when they use the computer as a tool for
writing. Analysis of the item revealed that 64.6% of the 48 respondents ("Strongly Agree" and "Agree") stated that their motivational level toward writing tends to increase with the use of the computer. 12 (25%) students developed a neutral attitude toward the use of the computer as a motivational tool for writing. Perhaps such students missed the meaning of the verb "to motivate". Only 5 (10.4%) students ("Strongly Disagree" and "Disagree") indicated that the use of the computer did not motivate them to write. The mean (X=3.7) and standard deviation scores (SD=0.9) of item 19 were relatively high, which shows a high percentage of the students who feel motivated to write when using the computer. However, the students were inconsistent in responding to this item in specific.

Items 17 and 20 acknowledge the students' attitudes toward using the computer to type a written assignment. When asked about their computer typing speed, 58.3% of the participants ("Strongly Agree" and "Agree") stated that they type faster when the computer is used. Conversely, while 20.9% ("Strongly Disagree" and "Disagree") had disagreed with each other regarding item 17, 20.8% of the sample population's answers were neutral. The high standard deviation score (SD=1.2) of item 17 represents the students' variations in their responses. On the other hand, the mean score (X=3.6) indicated the positive attitudes of the majority of the students regarding their computer typing speed. 66.7% of the students ("Strongly Agree" and "Agree") argued that they feel more comfortable when they have to type a written assignment on the computer since they know how to use their keyboarding skills. This suggests that students preferred the use of the computer in order to type a written task because they believed that they were able to use their typing skills. Almost 18.8% of the total number of respondents had
neutral feelings toward using the computer to type their written assignments. Only 7 students (14.6%) had negative attitudes ("Disagree") toward typing their assignments on the computer. This might suggest that such students' keyboarding skills might not be well-developed. The mean score (X = 3.8) of item 20 reveals the high percentage of the students whose feelings towards typing on the computer were positive. Item 20 standard deviation score (SD = 1.2) shows that the students' had different attitudes towards typing on the computer. The students' disagreement among each other with regard to item 20 can be either due to the lack or the well-development of their keyboarding skills. Not a single participant had strongly disagreed with item 20.

Item 11 exhibits students' attitudes toward displaying their computer-based written products on bulletin boards. 91.6% of the total participants ("Strongly Agree" and "Agree") feel happy when people read their computerized writing posted on bulletin boards. This demonstrates that displaying students' computer-based written products on bulletin boards can be considered as a motivator to write. 3 out of 48 students rated the item as neutral. Only one student (2.1%) expressed a negative attitude toward having people read her computerized writings posted on bulleted boards. The participant's negative attitude might be due to the low quality of his/her written products. Item 11 mean (X = 4.5) and standard deviation scores (SD = 0.7) indicated that the majority students agreed on the importance of displaying their computer-based written products on bulletin boards.

Item 14 recognized students' attitudes toward brainstorming their ideas on the computer rather than on paper. While 52.1% of the respondents ("Strongly Agree" and "Agree") felt more comfortable brainstorming their ideas straight on computers than on paper, 25%
("Strongly Disagree" and "Disagree") indicated that they had negative feelings towards brainstorming their ideas on computers. In other words, they preferred brainstorming their ideas on paper. 22.9% had a neutral position towards item 14. Item 14 mean score was 3.4 with a standard deviation of 1.3. This would show that the students had different attitudes with regard to brainstorming their ideas on computers.

Item 10 revealed students' attitudes toward printing out their computer-based written products. 93.7% of the students reported that they feel happy when they see their written work printed out. Only 3 students answered this item by adopting a neutral attitude. Not a single student conveyed a negative attitude toward printing out their computer-based written products. In other terms, no student rated the item as "Strongly Disagree" or "Disagree". The item had a mean score that was equal to 4.6 with a standard deviation of 0.5. This also proves the high level of agreement among the students who adopted a positive attitude towards having their typed products printed out.

The first four items (items 1, 2, 3, 4) in the questionnaire focused on identifying the students' frequency of using the computer and the Internet in two different settings, home and school. Analysis of item 1 showed that the majority of the student participants (87.5%) often use their computers at home. 4 (8.3%) students ("Neutral") failed to answer item 1 for no obvious reason. 81.3% out of the total number of participants (Strongly Agree” and “Agree”) claimed that they often access the Internet at home. However, 5 (10.4%) students ("Neutral") didn’t answer whether or not they often access the Internet at home whereas 4 (8.4%) students either disagreed or strongly disagreed with the idea of regularly accessing the Internet from home. 77.1% of the students reported that they often use the computer at school. 18.8% were unable to answer
whether or not their use of the computer at school is being done regularly. While a low percentage (39.6%) of the students (Strongly Agree” and “Agree”) declared that they don’t often access the Internet at school, the same percentage (39.6%) of participants (“Strongly Disagree” or “Disagree”) claimed that they don’t access the Internet at school on a regular basis. 20.8% were undecided whether or not the Internet is regularly accessed at school by the students.

Students’ focus group interviews

The focus group interviews’ data were divided into 4 categories/themes that are related to the study’s general research question. The use of this data collection instrument covered almost the same themes that were created throughout the analysis of the questionnaire’s data.

1. Students’ favorite means of writing

When students were asked to choose between the computer or the paper and pencil as preferred means of writing, twenty four participants stated that they preferred the use of the computer as a tool for writing. 8 declared that they preferred the use of paper and pencil whereas 7 other participants preferred the use of both means. The group of students who agreed on the use of the computer for writing reported that the computer helped them produce neat and organized written products that are free of mistakes, type faster, and save their work. They also appreciated the use of the computer as a tool for writing since they feel more comfortable and relaxed while using it. S5 stated a reason for choosing the computer rather than paper and pencil. He said that “it’s easier to use the computer because it’s neater and you don’t have to worry about neatness and the computer could correct your mistakes.” S23 has chosen the computer as a means for
writing. She stated "I choose the computer because I think it's easier and neater because if you write with a pencil, sometimes it would be messy and on the computer it would always be neat." S41 reported "I prefer the computer because it's neater when you type it and print it on the computer." S47 declared that the use of the computer allowed him to type and write faster. While S33 claimed "you can even print your work and it can be neater and more organized", S26 said "I will choose the computer because if we have a mistake, we can just press a key and it will be erased." When asked about his favorite means of writing, only one student (S3) out of the sample population stated "I find it easier to do it on the computer because on the computer it will be easier for you to write and you could save them." Three participants (S40, S20, and S27) provided the same reasons for using the computer as means for writing. For S40, S20, and S27, the use of the computer relaxed their muscles and made them feel more comfortable while writing.

The second group of students provided two reasons for favoring the use of paper and pencil over the computer. Feeling more comfortable, writing faster, and maintaining the imagination were the two reasons that were provided by the student interviewees. S29 said "I prefer the paper and pencil because um... we write and it's coming from our hand and we can erase but I feel more comfortable writing." Two students (S8 and S42) provided the same reasons for using paper and pencil. While S8 argued that using paper and pencil makes him write faster, S42 thought writing using paper and pencil is not as time-consuming as writing on the computer, especially if the computer user had underdeveloped typing skills. S42 said "I prefer paper and pencil because if we type slow, it will take a lot of time to type." Another student (S39) favored the use of paper and pencil to write because she disliked writing on the computer due to the physical
problems that it can cause if it was overused. S39 stated “I will choose paper and pencil because the computer sometimes hurts our eyes if we use it a lot.” One student (S32) affirmed that writing using paper and pencil helped her maintain her imagination. However, he/she wasn’t able to justify her choice. A third group of participants preferred to write using both means. Six students out of seven reported that they preferred brainstorming their ideas on paper and then typing them on the computer. According to S12, “We should start on a apiece of paper, then on the computer because we put our ideas on the paper and then we can... publish on the computer.” While S14 stated “I would choose paper first because we can brainstorm first and then we can type it on the computer”, S17 said “I think I’d list my ideas on paper then writ it on the computer.” S38 agreed with what S14 and S17 have stated since she claimed “I use the paper and pencil to put all my ideas together and then to put them all on the computer.” Only S46 provided a different reason by stating “I love both because I know how to type and write together. So I love both.”

2. Students’ attitudes/reactions towards completing a written assignment without the use of the computer

Thirty two out of thirty nine respondents showed negative attitudes regarding the completion of their written assignments without the use of the computer. Sad, upset, angry, furious, bad, mad, miserable lonely, and disappointed were the negative feelings that the students expressed when they were asked the second interview question. While six students answered the question by adopting a neutral position, only one interviewee (S32) reported a negative feeling toward writing on the computer. The majority of the interviewees provided meaningful reasons for adopting their different attitudes toward the
completion of their written assignments without the need of a computer. Among the reasons stated by the large number of respondents who had negative feelings toward the removal of the technological element (i.e. the computer) from the writing classroom were that the use of the computer enabled them to develop their typing skills while having fun, correct their spelling mistakes and make their writing neater and more organized, express their feeling more, and use the Internet to gather relevant information, chat with their friends and send emails. When he was asked the question, S4 reacted by saying “I would feel very upset because when I am using the computer for an assignment, I have fun because I don’t…. I learn how to type, I learn from my mistakes and how to type well.” S4 agreed with S43 who claimed “I would feel kind of sad because when I type on the computer, my.. my work would be neat and.. and my typing will be better. But.. if I don’t type on the computer, so I could.. I couldn’t get a lot of neat and my typing skills wouldn’t improve.” S42 thought that the use of the computer would improve her typing skills as well. S17 and S26 supported the use of the computer over getting to search in books. S17 felt sad and angry when he addressed the question because he believed that the computer helped him gather more information than books. While S17 stated “I would feel angry because if I started that assignment, I would want to finish it and it’s much easier to type on the computer because we don’t have to worry about the mistakes”, S26 declared “I would feel sad because if I wanna do research, I can just go to the Internet and if I can’t use the computer, I need to go to the library and get books and search and search. But if I had a computer I would just write the question and the answer will come right on the screen.” S21 who also had a negative feeling, reported that she used to express her feelings more on the computer than with paper and pencil. She
affirmed “I would feel angry and sad because I’d like to use the computer more than when I use my hand. I would also feel angry because I want to.. sometimes I use my feelings on the computer more than when I use it in writing.” Yet, she didn’t explain how the use of the computer helped her express her emotions. S20’s answer revealed the kind of activities that she used to perform on the computer and the reason why she would feel sad and angry if the computer was no longer used to complete a written task. She said “I think I would be very sad and very angry because I’m kind of attached to the computer because it helps me a lot um.. by writing my ideas and getting stuff from the Internet and copying and pasting on a piece of paper, then I will print it, I will feel very happy because um.. it’s neat and tidy.” S30 refused the use of paper and pencil since he considered the use of such means as causing him a physical discomfort and making him feel bored. He claimed “I would be mad because when I write my muscles get tired” and “sometimes I feel bored when writing on paper and pencil because like there’s more things on the computer and newer and funest things.” To justify his negative feeling toward the removal of the computer from the writing classroom, one of the students (S29) stated a shallow reason for his position. Madness was the feeling that he would likely adopt if he was no more allowed to write on the computer because he enjoyed changing the handwriting. S48, S39, and S44 reacted negatively to question number 2. However, they didn’t justify quite reasonably the adoption of such negative feelings. While S44 didn’t clarify how the use of the Internet to chat with his friends would enable him to complete a written assignment, S48 and S39 didn’t explain how chatting via the Internet and playing games would help them complete their written tasks.
While four out of five students provided meaningful reasons for adopting neutral attitudes vis a vis the completion of a written task without the use of the computer, one participant (S7) proposed a senseless explanation. Among the participants who encouraged the use of books were S9 who said “I would feel sad, but not really sad because we could search in books for information and it’s not the end of the world.” S9 disagreed with S6 who wished the use of the computer since it can help him publish neat products and easily collect information using the Internet instead of checking in books. S46 and S1 suggested the use of paper and pencil to complete a written assignment. However, S1 preferred the use of the computer to publish her written work. On the other side, S32 favored the use of paper and pencil as a means for writing and rejected the use of the computer since it made her feel physically uncomfortable. She said “I feel really bored when I type on the computer but on the paper, even if my hand cramp or my muscles are tired, I keep writing but in the computer my eyes will be closed and that’s why I’m very bad at the computer and I don’t know how to open it so much.”

3. Students’ perceptions of the positive and negative aspects of using the computer to write

Students in Grade four perceived differently the use of the computer as a tool for writing. Out of the forty eight students who were interviewed, thirty five participants positively perceived the use of the computer as a tool that improved their writing skills whereas three students stated their negative perceptions of the use of the computer in improving their writing skills. The interviewees provided different reasons to support their arguments and/or answers. The large number of students who agreed that the use of the computer enabled them to improve their writing skills thought that the use of such tool
helped them produce written work that is neat, check, correct and learn from their spelling mistakes. It also encouraged them to write more and use the Internet to learn new vocabulary words and gather new information (e.g. definitions) in addition to accomplishing research-based tasks, changing the font style, developing their typing skills (i.e. type faster) and helping them write better with paper and pencil. S7 believed that the use of the computer enabled him to write more and learn from his mistakes. He said “I think it helped me improve because before I used to type on the computer, I used to... I never wrote a long story like two pages. I only wrote half a paragraph, now since I started writing, I started writing on the computers, I write like five pages and I really improved because if I put two, two spaces so it puts a green line under it so I have to press right click and it helps me understand where my mistake is, and if I spelled it wrong, it puts a red line under it.” S2 agreed with S7 by saying “I think the computer helped me in my writing because in third and second and first grade, I used to write a bit, but when I use the computer I have more ideas. It helps me pick my mistakes, learn my mistakes and be neater.” In addition to the reasons that were stated by S7, for S2 the use of the computer allowed him to present written work that is neat. Moreover, S24 believed in the use of the computer as a tool that corrects her spelling mistakes by saying “Yes it improved my writing because when I write in Microsoft Word, they put a red line under the word that I spelled it wrong, then I correct it, then I remember how do we write it.” On the other hand, S21 thought of the use of the computer as a tool for writing from a different perspective. She affirmed “Yes, writing on the computer improved my writing because sometimes when I go to the Internet on the computer, I can see information which I can remember, creative information which improves my writing when I’m
writing on the journal the teacher asked us. I can remember what I found on the computer and write it in my journal.” S14 reported that the use of the computer helped him complete research-based assignments by gathering new information from the Internet and feel that he has the willingness to write more as he is typing. S31 pointed out that learning new keywords can occur through the use of the computer. He answered “I could have new vocab words like in the computer, like there’s something called Encarta dictionary. I type the words and I would know what’s the meaning of it and I could write it and like it’s one word I learned and I could use in writing.” S43 was among the students who believed that the use of the computer helped them type faster since she said “I improve in my writing skills because I learn when I make a mistake, I learn that I made this mistake and they tell me how to write it correct. And I’ll get faster when typing on the computer.” While S44 stated “it helps us write better on paper and pencil”, he didn’t explain any further how the use of the computer helped him develop his paper and pencil writing skills. Only one student (S8) claimed that the use of the computer helped him choose the font style that he prefers the most. He stated “when I make mistakes or I’m writing on the computer, the handwriting is different and sometimes better than mine, so I write everyday, everyday I write on the computer.”

Students who stated that the use of the computer didn’t help them develop their writing skills thought that use of such tool didn’t provide them with an explanation of the nature of their mistakes and it neither helped them write better since they believed that their writing skills were quite developed even before the use of the computer. Two students (S1 and S34) expressed a high confidence in their writing skills without the use of the computer. However, S1 didn’t ignore the usefulness of the spell checker in correcting her
spelling mistakes. She also thought that the instructions and the feedback provided by her language instructor during the writing classroom helped her develop her writing skills. S34 said “It doesn’t help me a lot because I already can write because I’m only writing what I know, so I already know them.” S20 was the only participant who declared that the use of the computer for writing was useless since she was able to identify her mistakes but didn’t understand their nature. She affirmed “I don’t think it helps me a lot because um… when you put a red line under the word that I spelled it wrong, they just put the correction, I don’t learn from the correction because they do it for me.”

4. Students’ attitudes toward using the computer to complete a written assignment

When the students were asked about the best and/or worst thing about using the computer to accomplish a written-based task, the participants provided different answers. However, the majority had a common answer. They considered the use of the Internet to gather relevant information and the use of the spell-checker that corrects their spelling mistakes as the best things that they have experienced throughout the completion of their computer-based written assignments. Other students described the use of the computer as creative since it enabled them to use their imagination in order to produce creative written products, fun, nice, and easy since it helped them develop their typing (i.e. know the place of every key on the keyboard and try to type faster) and research skills (i.e. search the Internet to gather relevant information) through practice. The following examples illustrate the interviewees’ samples of answers to question 4 regarding the best things about using the computer to complete a written assignment.

S14: The best thing is that.. when we go to the Internet. Because like I did a presentation and I gathered a lot of information about ancient.. ancient history and yeah..

S13: My best thing about doing a computer assignment is I get more knowledge and
more information, and learn more things, like once I made a research about
dinosaurs in the prehistoric time...

S17: The best thing of using the computer is... is that we could find a lot of information on
it like we could find... twice... twice the information we're gonna find on books, like
on Google we could write whatever we want and it will give us information about
it.

S23: The best part of the computer is when I want to write a paragraph and I want to
search for pictures relevant to it. I just find it in front of me. I don't have to grab a
pencil and draw it.

S11: The best thing about using the computer is that it can correct the spelling..

S46: The best thing when typing an assignment on the computer is that we can do
creative things on the computer. And the pencil and paper, we only use the pencil
uh... and the eraser to write.

S20: The best part is when for me... is when I finish typing everything with text and
pictures and everything and then I print it and I see my work, I feel very proud of
myself and I feel that I did something right and it was very creative.

S16: The best thing about the computer is that it gives so much information and it is so
nice and it lets you to type more faster.

S43: The best thing of using the computer is because it improves my writing and tells
me... and tells me how to write a word and it's neater than our handwriting.

S43: The best thing is that we have fun when we're typing... we have fun when we're
typing on the computer.

S35: And the best thing... is when I type it's easy for me because I know the places of all
of the keys and I type fast.

Furthermore, one student (S34) claimed that the use of the computer was tiresless while
two (S44 and S8) asserted that it was physically tiring if it was overused. S34 While S8
said "the worst thing about writing assignments, it's something tiring for our fingers
when we type a lot, fast and a lot", S44 replied "the worst thing ever, it hurts our eyes if
we stay a lot, if we keep typing like two stories, it'll take time, so our eyes will hurt us."
Forgetting to save their work, consuming a lot of time on the Internet without finding relevant information, their underdeveloped typing skills (i.e. typing slowly which consumes a lot of time to complete an assignment), computers as well as printers malfunctions, and viruses were among the worst things that the students have experienced when they had to use the computer in order to complete a written assignment. S34 answered the question by saying “the worst thing is that sometimes the computer changes something for you while you’re writing without you wanting to change it. Sometimes for example, you press enter and it’s not a new sentence so it makes it a capital letter for example.” S37 replied that “the worst thing about completing the assignment is that sometimes the computer gets a virus and then you can’t complete it, and you need to refresh the computer but then the saved work will go.” The next examples highlight the interviewees’ samples of answers to question 4 regarding the worst things about using the computer to complete a written assignment.

S6: and the worst thing that I hate is saving.

S28: The worst thing of typing an assignment on the computer is when like on time Miss Nour told us to save something.

S34: The worst thing when I do my assignment on the computer is that when I want to save something on the computer

S35: The worst thing when you type on the computer is that sometimes when you save it and the next time you want to open it, it’s gone.. pouff it disappears.

S14: and the worst thing is that when you.. when you.. when there’s something wrong with the computer, it doesn’t correct your mistakes, and then you go to present it and you find those mistakes instead of things you write uh..

S13: and the worst thing is that I do about.. when I'm doing a computer assignment is that it takes a lot of time using the Internet and finding more information, like it takes me more than one hour.

S11: and the worst thing is.. when there’s an error in the computer or the printer has a
problem, so it can print out something wrong like spelling and it won’t get the words... and miss out a word.

S17: The worst thing is that sometimes the viruses from the Internet.

S26: When a virus comes and I have to turn it off.

S22: But the worst thing about the computer is when a virus comes and.. or when you make mistakes and it doesn’t go..

S18: and the worst thing is that sometimes we don’t find what we want to get.

S23: And the worst part is like sometimes I type slow so I take time to finish the assignment.

S37: The worst thing of using the computer when I write an assignment is like when I want to type I’m slow because I don’t know where are the keys and everything in the computer.

S43: But the worst thing is that it takes time to finish the assignment.

S46: And the worst thing is.. the computer sometimes it’s stuck and it doesn’t work.

S43: But the worst thing is sometimes your work is.. deleted. But when we’re typing, it stops sometimes because there’s no more battery.

5. Students’ motivational criteria/aspects for selecting the best computer-based written assignment

When the students were asked about the best assignment that they have written using the computer, some students replied by stating that it was a poem while others claimed that it was a research-based task. The reasons for selecting their written assignments varied among the subjects. However, twenty students had common answers. They suggested that the content of their tasks was interesting, meaningful, and understandable. Out of the twenty two students, five added four reasons to the ones mentioned previously. While S2 considered the longest and the most understandable task as the best one he has ever written, S8 stated “I choose “The Hidden World” also because they’re long and people
can understand them. It's nice and sometimes funny” whereas S7 reported “I chose it because it is long, people understand it, it is creative and uh.. I used a lot of my creativity.” S6 said “I would choose my poem “Purple” because it makes sense and it’s nice and people will understand it.” S48 thought that the reasons for choosing her poem “The Nervous System” as the best assignment she has accomplished using the computer, was the amount of information she has learned and the nice font style she has chosen. On the other hand, eleven students reported they enjoyed typing their assignment on the computer and using its different features (e.g. changing the font style). Out of the eleven subjects, seven added that the completion of the task was nice and funny, and enabled them not only to use colors and pictures, but also to activate their creativity and express themselves freely. S5 enjoyed writing his paragraph “A night Alone” on the computer because its content was very nice, he used pictures and a font style that are relevant to the theme. S34 enjoyed writing her poem “The Runner” on the computer because it was short, and full of colorful pictures. S35 loved her poem “The Immune System” because it reflected her creativity and it was nice since it contained rhyming and new vocabulary words. S41 enjoyed writing her poem on the computer since she expressed herself when she wrote it and because it was full of pictures. For S40, the use of the computer to publish an assignment allowed her to produce a written product that was nice in terms of content and neat as well. S30 has chosen “The Runner” as the best assignment written on the computer because its content was fun and included new verbs and adjectives.

6. Students’ perceptions of the usefulness of the Internet in completing computer-based written products
When the students were asked whether they use the Internet to complete a written-based task, twenty three participants mentioned that they were regular users of the Internet, ten stated that they used the Internet from time to time (i.e. "sometimes"), and six were in disagreement with the first two groups of respondents (i.e. "no"). Each student provided his/her argument for his/her use of the Internet. The twenty three students who tended to use the Internet quite often, claimed that they used it to research, gather information and collect pictures about a specific topic. In their answers, two (S4 S34) out of the twenty three students expressed their preference toward the use of the Internet as well as their dislike toward the use of books. They thought that the Internet was easier to use, provided them with new vocabulary terms and detailed information about a relevant subject, and highlighted the different aspects of the research topic, whereas books provided them with a limited amount of information and pictures. The following extracts show how the students positively perceived the use of the Internet to complete a written assignment.

S27: I use the Internet for searching for information about the written task that the teacher gave us.

S14: Yes because I like to gather some new ideas that I did not learn about and paraphrase them in my own words to understand them and either present them or give it to my teacher to correct.

S17: Yes I use the Internet when I’m asked to complete an assignment by.. by looking.. by researching about the stuff I need to write.

S4: No.. I would like to use the Internet more because they have more information than books. Because then I have to go to get more books so I could get more information but the Internet is just one thing, so it’s easier.

S34: The use of the Internet helps me to complete a written assignment by giving me more ideas and more inspiration of my writing.

S34: That when I research I could find more vocab words and its’ more easier than looking in books and there’s many places that gives you information more than one.
On one hand, students (S8 S7 S2 S11 S18 S10 S32 S45 S44 S39) who replied that they used the Internet “sometimes”, were either those who didn’t have Internet access at home, or were not allowed to use the Internet at home, or don’t know how to access and use the Internet because they find it hard, or had bad experiences with the use of the Internet (e.g. viruses, spying on the Internet), or they simply preferred to use their creative minds. However, when such students used the Internet, they used it to gather information in order to fulfill the requirements of their written tasks. The next examples present how some of the ten participants validated their infrequent use of the Internet throughout the completion of their written assignments.

S8: I don’t use the Internet a lot but my mom is teaching me but I’m learning from time to time whenever I’m going to Internet and accessing it. Whenever I need to make an assignment in the Internet and somebody told me to make an assignment in the Internet, I would go there and get information and stuff. But if they didn’t allow me to go to the Internet, I wouldn’t have gone to the Internet and made other stuff because I’m not used to Internet a lot because I don’t have Internet in my computer.

S8: And it’s better to get stuff from the Internet because sometimes in books they only have one.. they say one thing about the thing you want to find but when you go to the Internet and you type the thing that you want to find, they put all the information, not just one thing..

S2: Sometimes I use the book and sometimes I use the Internet. Sometimes I don’t use the Internet because once when I was using the Internet, virus came to my computer and sometimes people could spy on you with the Internet.

S11: Yes sometimes I use the Internet when I’m asked to write a written assignment and like sometimes I don’t know some ideas so I’d go to the Internet and summarize the ideas and get better ideas.

S32: No in the Internet I don’t use it much to do my homework because it doesn’t help us much. I just use it to find out about someone.

S44: Me uh.. sometimes I would use because I use the Internet for a written assignment because I use it, maybe they gave us a research, I use the Internet for it, but sometimes if I’m writing a story, I use my imagination without the Internet.

S45: Sometimes I use the Internet because if I don’t have a book that is relevant to
our assignment, I use the Internet. The Internet has pictures and they help me find information about my assignment and sometimes books.

S39: I don't always use the Internet when I want to do something on my assignment. I could just.. I don't use it because I want to use my own creativity and be creative in my own way without getting the computer's help.

On the other hand, students (S16 S29 S40 S43 S48 S42) who had negatively perceived the use of the Internet stated one of the following arguments: they didn't have internet access at home, they believed in the unsafety of the Internet (e.g. viruses), they preferred the use of educational CDs like "Encarta Kids" since they believed that they were safer than the Internet, and finally they perceived the use of the Internet as hard. The students' negative perceptions of the use of the Internet throughout the completion of a written assignment are revealed in the following examples.

S16: I don't use the Internet because I don't have Internet at home.

S29: The Internet doesn't really help us complete a written assignment because it's just for kind of research.

S43: Well, I don't really use the Internet. If I want to get a picture, I will get it from the program or I will get it from Encarta Kids, but.. because it's hard to go to the Internet.

S40: Miss I don't really use the Internet if I want to get pictures because I always look in books and get pictures and photocopy them and my parents don't really let me go on the Internet alone and there's rules on the Internet for me. So I don't really use the Internet and I don't think it's that important to me because I rather look in other things rather than the Internet that can help me a lot and that can give me helpful tips.

S48: No I don't the Internet because it's not always safe. It's dangerous to always go in the Internet because sometimes they could put viruses.

S42: I'd rather use something other than the Internet for research or anything because there are safer ways to search for something.

7. Students' sources of support when having difficulties with writing using the computer
Among the forty-eight subjects who addressed the interviewer’s question about the individuals who helped them when they faced any obstacles throughout the completion of their computer-based written tasks at home, thirty-six participants declared that they either received help from their parents (i.e. mother and father) and siblings (i.e. brother and sister), or tried to solve their problems by themselves. It is worthy to read the following examples that illustrate the students’ main sources of support when accomplishing a written assignment on the computer.

S1: Usually at home uh, well the computer, it fixes you mistakes but not all your mistakes. So that’s when you have to edit, so you have to read again and see your mistake. But if you can’t solve them, you can’t find out what they are, you can ask your mom or dad

S11: At my home, my father helps and when I have a problem or something and he’s busy or he’s not at home, then I try to solve the problem myself.

S12: Usually my brother helps me and my dad. When my brother and dad are not at home, I try to face it by myself.

S20: But at home, my big brother shows me how to do it and explains it for me because my mom has work.

S37: When I face problems at home my dad helps me because he’s a computer engineer, he fixes many computers and the laptops that we have at home.

S27: But at home, my mom and dad because they are both, my dad is a computer engineer and my mom is a computer science.

S22: But at home, my brother helps me because my mother works.

S24: And at home, I tell my brother because my brother knows and I don’t tell my mom because my mom doesn’t really know and my dad travels.

S29: Me no one helps me.

S29: I try to solve it by myself.

S33: When I find difficulties in typing on the computer, or in anything on the computer, I try to solve my problems by myself and I really.. I don’t want help from anyone because I need to figure out my problems but if I can’t solve and I’m not understanding what’s wrong, I ask my mom to help me.
S34: If I face a problem in the computer, I first. I try to solve it myself and see what’s the problem. Then if I’m really not understanding the problem, I seek the help of an adult like the teacher or my parents.

S36: If I face a problem in the computer at home, I’ll ask my big brother or my mom or dad.

S44: If nobody can help me and I’m typing and suddenly like they put, the Internet is like ‘detected virus’ and then I can save my work and wait until my mom and dad or any adult comes and they can help me.. they can help me get rid of the virus.

S45: At home, I don’t have any problems in the computer because I’m used to my computer, how it works and..

S47: At home, if I face a problem I ask my sister..

S15: At home, my brothers or my dad helps me.

Out of the thirty six respondents, S45 claimed “At home, I don’t have any problems in the computer because I’m used to my computer, how it works.” Out of the total number of participants, only one (S8) stated “nobody helps me” without providing a reason for his argument.

When the sample of participants was asked about the persons who supported them at school, forty three students stated that they either received help from both or either both, their class (i.e. homeroom teacher) and IT teacher or their partners who are seated next to them, as it is highlighted in the next examples.

S2: When I have a problem at school, I ask the computer teacher. And sometimes when.. If we’re punished, we can’t talk or something, I’ll can ask my partner quietly.

S1: And at school you can ask you teacher or like they said you partner. Or you can just find it out yourself.

S20: At school, my friend who is seated next to me mostly helps me.

S36: And at school sometimes I ask my friends or the teachers that are there.

S32: At school, if I face problems at school in the computer and I don’t know what to
click, there’s my friend who’s sitting beside me and I tell him: what do I do now? He tells me do this and do that.

S45: But in school, I need the teacher’s help because I don’t really understand what she says when we want to use the computer, at school.

S45: Yeah, like if she says to go to the Internet to search for something, I will go to the Internet but I won’t understand what she really says.

S47: And if I face a problem in school, I ask the teacher.

S15: At school, the computer teacher and the class teacher.

S28: The teachers, Miss Juheina or Miss Nour.

Four (S5, S11, S21, S38) out the forty eight students preferred to try to solve their problems by themselves at school as it is shown in the following examples.

S5: When I have... when there’s a virus on the computer or anything, I ask my sister because my sister is very good at the computer and when I’m at school and there’s a problem, I do what my sister does.

S11: At my home, my father helps and when I have a problem or something and when he’s busy or he’s not at home, then I try to solve the problem myself.

S21: I can do it, I can manage it by myself.

S38: At school, I know everything.

8. Students’ comments

Four students (S3, S15, S16, S33, S34, and S35) described the computer as an interesting, nice, smart, helpful, useful, special, and wonderful tool. S3, S4, and S2 recommended that every individual in the world should possess one. S7 and S15 common advice for the computer users was to carefully surf the Internet. Moreover, S7 recommended the use of websites that are safe. S6 expressed a positive attitude toward the use of the computer as a research and “typing” tool since it helps its users produce products that are neatly written. He also supported the advice that was offered by S7. S7, S6, and S2 were worried about the issue of kidnapping people on the Internet. S5 couldn’t imagine his life
without the use of the computer. He commented by saying “My life wouldn’t be the same if there weren’t no computers because computers, they help you communicate with other people from other countries like sending emails and having fun on games. So I think if there’s no computers in my life, I would be miserable.” On the other hand, S35 maintained that the use of the Internet is beneficial since it allows her to find useful information. S43, who considered the use of the computer in general as fun and the use of the Internet in specific as informational (i.e. to fulfill academic tasks), encouraged people to use the computer heavily (i.e. a lot). However, while S40 and S42 encouraged the use but not the overuse of computers by reporting some of the physical problems that can be caused if computers were overused, S40 rejected the heavy use of the computer and the Internet for chatting in particular since they can make you in touch with people you don’t know. This demonstrates the extent to which some of the students were aware of the different uses of the computer, its advantages and disadvantages and also highlights the degree to which they were attached to its use. S21 and S22 had almost the same comments. They claimed that the use of the computer enabled them to express themselves. S30 considered the use of computers as entertaining. He said “Life is boring without computer.” S33 considered the use of the Internet as better than the use of books since the former provides updated information. S34 enjoyed using the computer to write since it the use of such tool enabled her to complete her written assignments in a non-traditional fashion. S34 thought that typing on the computer was fun and less time-consuming than the use of other means.
Teachers' interviews

The analysis of the interviews' data is based on the informants' responses. The nine themes that emerged from the ten categories are illustrated in the following table. The categories and the emergent themes are related to the study's general research question. The use of this data collection instrument examined the perceptions of the teachers toward the use of computer technology in the writing classroom and shed light on their experiences with the use of such tool by the students.
<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-report information (Q1)</td>
<td></td>
</tr>
<tr>
<td>2. Classroom-based information (Q2)</td>
<td></td>
</tr>
<tr>
<td>3. Teachers’ experiences in implementing computer technology in the writing classroom</td>
<td>a. Used computer applications (Q3)</td>
</tr>
<tr>
<td></td>
<td>b. Type of writing activities (Q4)</td>
</tr>
<tr>
<td></td>
<td>c. Difficulties (Q10)</td>
</tr>
<tr>
<td>4. Teachers’ perceptions of computer technology and the Internet in developing their students’ writing competence</td>
<td>a. Effectiveness of computer technology (Q6)</td>
</tr>
<tr>
<td></td>
<td>b. Role of the Internet (Q7)</td>
</tr>
<tr>
<td>5. Motivational factors that influence the teachers’ decisions in assigning computer-based written tasks</td>
<td>a. Advantages of using computer technology (Q5)</td>
</tr>
<tr>
<td></td>
<td>b. Teachers’ sources of support to develop their computer skills (Q13)</td>
</tr>
<tr>
<td>6. Teachers’ descriptions of the students’ attitudes/reactions when using the computer to write (Q8)</td>
<td></td>
</tr>
<tr>
<td>7. Teachers’ perceptions of computer technology in developing their teacher-student and student-student interpersonal relationship (Q9)</td>
<td></td>
</tr>
<tr>
<td>8. Teachers’ descriptions of their role as the students use the computer as a tool for writing (Q11)</td>
<td>a. Role of computer technology in developing the teacher-student relationship</td>
</tr>
<tr>
<td></td>
<td>b. Role of computer technology in developing the student-student relationship</td>
</tr>
<tr>
<td>9. Teachers’ perceptions of computer technology in developing the students’ writing competency in terms of quality and quantity (Q12)</td>
<td></td>
</tr>
<tr>
<td>10. Teachers’ comments</td>
<td></td>
</tr>
</tbody>
</table>

1. Self-report information (Q1)
Rana, Nour, and Rima were Grade IV homeroom teachers at CLS. Juheina used to teach IT skills in Grades IV and V. For Rana, it was her first year teaching at CLS. However, Nour, Rima, and Juheina have been serving in this academic institution as teachers for more than eighteen years. Both teachers' comments demonstrated their positive perceptions and attitudes towards the use of computer technology by their students in order to complete their written assignments.

1. Classroom-based information (Q2)

Rana explained that the use of IT is based on her students' needs. However, she stated that the students had to attend the IT class by going to the IT lab once a week for a period of 50 minutes in order to type their personal journals, stories, poems, conduct research as well as to practice their keyboarding skills. Moreover, she clarified that the students were free to access the computer lab and the library during recess in order to employ the computers that were found there. Nour reported that the students had their “computer uh.. scheduled period where all the students will get the chance to work on their own computer in the computer lab.” She clarified that the students had to take turns and follow a schedule when using the computer in their regular classroom setting in order to accomplish their written assignments that varied in nature (i.e. research-based, typing etc.). Rima's answer was straightforward. She said that her students usually “work on the computer an average of twice a week.” Juheina declared that the students “come to the computer room once a week.” She stated that the assigned task that they are asked to perform depends on the objective set by the class teacher.

2. Teachers' experiences in implementing computer technology in the writing classroom

   a. Used computer applications (Q3)
The four teachers stated that they allowed their students to use a word processor like Microsoft Word and a web organizer program like Inspiration as computer applications throughout the completion of their written tasks. Moreover, while Rana claimed that she allowed her students to use a program like “Mavis Beacon” to help them develop their typing skills, Rima added the use of Print Artist and Paint by her students whereas Juheina asserted the use of electronic encyclopedias. Microsoft Word was used for different purposes by three teachers. It was used by Rana’s students “to construct tables”, but Nour’s students employed it to write “simple paragraphs”. Juheina indicated that the use of this word processor was to help the students write information that they have retrieved form a specific resource (e.g. electronic encyclopedia) and paraphrased in their own words. However, Rima didn’t explain further how her students might have used Microsoft Word to accomplish their written tasks. Regarding the use of Inspiration, Nour stated that her students used it to draw the KWL (What I Know, What I Want to Know, What I Learned) chart whereas Juheina’s students used it “as an application for brainstorming.” Both teachers, Rana and Rima didn’t clarify how their students benefited from the use of Inspiration. Juheina explained the use of electronic encyclopedias was “to retrieve, to read, retrieved information.” Rana pointed out that the use of Mavis Beacon enabled the students to improve their typing skills. As additional computer applications used in her writing classroom, Rima mentioned the use of Print Artist and Paint, but she didn’t gave details concerning the way her students tended to use it. The participants provided different examples of computer applications used by their students in their classrooms. The findings show that although the teachers have used different computer
applications to help their students accomplish their written assignments, no one indicated the use of the same application to fulfill a common pedagogical purpose.

b. Type of writing activities (Q4)

Nour indicated that she has involved her students in "writing a paragraph or writing uh.. points or questions." Two teachers (Rana and Nour) engaged their students in writing activities that required them to gather information through browsing the Internet. Moreover, Rana allowed her students to use Encarta, which is an electronic encyclopedia in order to collect information. Both teachers insisted that they recommended their students to paraphrase the information after their retrieval. However, they didn’t state whether or not their students were taught how to surf the Internet and most importantly write the ideas that they got in their words, and cite the sources appropriately. Rana emphasized that "in IT lab they do research on Encarta and Google and they don’t copy paste." Nour considered the act of browsing the Internet as a reading activity and assumed that the act of paraphrasing the Internet-based information as a writing activity. She stressed that when the students are "conducting a research, they read...it's not really a writing excerc. it’s it’s the reading and then they would write uh.. for the .. (In Arabic) ya3ne what they’ve learnt. It’s more paraphrasing.. (In Arabic) ya3ne they read, they uh.. put it in their own words and then write it in their own words. That’s paraphrasing."

Microsoft Word was used similarly among Rana and Rima's students. Students in both class sections were encouraged to use the word processor to type their personal journal entries or their paraphrased information as in the case of Rana’s students. Two teachers, Rana and Rima have commonly engaged their students in webbing activities using Inspiration. Rana allowed her students "to brainstorm ideas and to research ideas" using
Inspiration whereas Rima said that her students “would be webbing their work” using such software. Juheina didn’t address the question appropriately. She didn’t specify the type of writing activities that the students were supposed to accomplish using the computer. Her answer was too broad and irrelevant. She implied that the writing activities that were conducted in her computer lab were based on the needs of the ESL teachers and that she usually “coordinate on a regular basis” with the ESL teachers “to set the computer-based assignment the students need to achieve.” Answers to this question demonstrate that the students were engaged in different writing activities. Some were asked to search for information on the Internet, paraphrase them, and type them on a word processor. Others were required to type their journal entries on a word processor. Webbing their ideas using a web organizer software like Inspiration was also among the writing activities that the students were expected to perform.

c. Difficulties (Q10)

Rana mentioned that the students’ lack of exposure to the use of computers inside the regular classroom setting might be a difficulty “due to the fact that there’s only one computer.” She implied that having one computer in the classroom is not enough since the students need to be greatly and equally exposed to the use of such tool. She thought that “other students feel that they are missing out when one person is on the computer.” As for Nour, she considered having the students save their work improperly on the computer as a difficulty. She explained that saving their work and retrieving it again is a “skill that has to be taught and sometimes” it has to be taught “on a one-to-one basis.” Moreover, she admitted “in my class I have one computer and for them to get the chance to get to that computer and to work, it’s really uh.. you need to chan.. ya3ne (in Arabic)
that person who’s working on the computer he needs to work... when everybody else is busy doing something else, you need to change the plan for the day, and these are difficulties.” In other words, it was a little difficult for her to manage the classroom especially when a student who has finished working on the computer has to go back to his/her seat, start a new task, and exchange his/her turn with his/her classmate. Nour’s answer implied the need to have more than one computer in her classroom since having only one computer has created classroom management problems such as “changing their daily classroom routines/plans. Rima stressed the need to teach the students “how to use the computer” and the writing skills like “what’s a sentence, how to write a sentence and a paragraph” as a way to avoid the difficulties that might arise. As a matter of fact, Rima’s answer to this question was insignificant. She didn’t identify the difficulties that she might have faced when she allowed her students to accomplish their written tasks using computer technology. “Saving and retrieving their work in their folders”, “printing and using the appropriate printer”, were among the difficulties that were faced by the students as indicated by Juheina. The students’ lack of basic computer skills (e.g. To save, to print) and the unavailability of more than one computer in the classroom were the two major findings that were identified after the analysis of the interviewees answers.

3. Teachers’ perceptions of computer technology and the Internet in developing their students’ writing competence

   a. Effectiveness of computer technology (Q6)

The four teachers expressed different opinions regarding the effectiveness of computer technology in developing their students’ writing skills. Rana saw the computer as a “good tool” since it can help the bad spellers correct their spelling mistakes. She also found that
using the computer is easier for the students "who have trouble with handwriting". In her opinion, the computer is an important "form of expression" since it enables the students to produce neat written products and "a great database for information" that allows the students to gather information for research, "interact with things and other people." She hoped that using the computer "doesn't make things simpler" for the students and doesn't replace one of their motor skills like handwriting. Furthermore, Rana thought that the use of computers (i.e. Word processors and Internet) at home helped the students easily complete their research projects since their research and computer skills were well-developed. Nour's opinions regarding the effectiveness of computer technology was similar to Rana's. She considered computer technology as effective since it permits the students to "see where they have their spelling mistakes because it marks it." Although she admitted that her students were a bit slow in typing, she reported that they were motivated to write and improve their writing skills after being exposed to a large number of reading materials. She also expressed her students' preference to read materials that are posted on the Internet than just reading in books. Nour claimed that she provided her students with some website links in order to help them complete their research projects by using relevant online materials. Rima considered the use of the spell checker as something that does not really improve the students' writing skills. She also stated that if the students "have sentence structure mistakes, the computer would tell them, will identify the mistake but not give the correct answers." Although Rima believed that computers could support the students learning, her answer demonstrated her negative perception towards the use of computers in developing her students' writing skills. As for Juheina, she viewed the use of computers as something that would facilitate the processes
of editing and revising the students’ computer-based written products. She said “it will help by deleting or adding to their paragraph words and expressions easily.” Moreover, Juheina considered the use of electronic dictionaries throughout the completion of a written task as useful since it helps the students “to search for the meaning or to another synonym in order to enrich their sentences.” Most of the participants perceived the use of computers as effective since it simplified and facilitated the accomplishment of the students’ written assignments. According to the participants, the use of computer technology was beneficial to the students in terms of writing skills since it allowed them to use word processors to create written materials that are well-edited, and the Internet to accomplish research-based task and to communicate with people. Nevertheless, it was noted that computer technology would be ineffective if students overemphasized its use.

b. Role of the Internet (Q7)

Throughout the interviews, the four teachers declared that the use of the Internet was effective in helping the students gather relevant information to fulfill the requirements of their written tasks. Rana believed that the use of the Internet helped her students “with efficiency and finding information” but it didn’t help them become better writers. In addition, she insisted that her students were aware of paraphrasing the Internet-based information. Nour considered the act of reading information that are displayed on the Internet as a motivator that would encourage them to complete their written assignments. She said, “when they’re reading, uh… that motivates them.. in ye3ne (in Arabic) they get more ideas.” Additionally, she claimed that the students “should always cite the uh.. um.. write down the site that they’re using so there’s no plagiarism, so that so they’re aware of it.” Nour described the Internet as “a good connection between home and school.” She
explained that accessing the Internet at home to read and collect relevant information had positively influenced the students' motivation to accomplish their written tasks. Rima agreed that the Internet helped her students “get information”. However, she insisted that her students were not allowed to copy and paste information from the Internet and they were required to apply the skill of paraphrasing that they have learned throughout the year. According to Rima, the use of the Internet was perceived as useful in terms of writing skills only when the students “are rephrasing the information”, not “searching for information.” In Juheina’s words, “the Internet has an important role in providing students with ideas. They need to paraphrase using their own language in order to avoid plagiarism.” The teacher participants were aware of the advantages of having the students use Internet throughout the completion of their written tasks. They also realized the extent to which the Internet motivated the students to produce better written products that are well-written. They all stressed the need to paraphrase the Internet-based information in order to avoid plagiarism.

4. Motivational factors that influence the teachers’ decisions in assigning computer-based written tasks

Among the motivational factors that influenced the teachers’ decisions in assigning computer-based written tasks were the advantages of using computer technology and the teachers’ sources of support to develop their computer skills.

a. Advantages of using computer technology (Q5)

Rana reported that the students’ self-motivation and interest in using computers were two factors that encouraged them to assign computer-based written tasks. She said, “kids love it.. they love the idea of having a computer and they get to use it. It’s.. um.. it’s it’s more
exciting for them than just to have pen and paper.” Rana saw the use of computer technology by the students as an essential lifelong skill. She remarked that the use of computer technology is “a very important tool that they definitely need. So.. it’s a skill as well.. it’s a skill for the rest of their lives. So, it’s very essential.” Rana thought that the students will have to use computer technology in the future. For this reason, she stated that what motivated her to assign computer tasks was the fact that it was beneficial for the students in their future lives. Nour declared that the students seem motivated to write on the computer simply because they consider it as a non-traditional tool and due the fact that the computer includes a wide variety of features that allow its users to publish written work of good quality. Nour said that when the students tend to use the computer, “they also get to insert images, they use uh.. clip art, ya3ne (In Arabic) for them to work on mainly publishing their work.” Rima and Nour had almost identified similar factors. Rima also considered using the computer’s specific features such as drawing and coloring as motivational aspects that encouraged her to give the students written assignments to accomplish. Furthermore, she considered the fact that the students’ work was personally produced (i.e. personal input) as a motivational factor as well. Rima said “the fact that it’s in colors, that encourages the students, the fact that they can draw, it’s not all text, that’s also encouraging the students and the fact that its’ their own input.” Juheina asserted that “students with a bad handwriting uh.. really like to work using the computer. They are motivated to use it.’ She thought that the use of computers was motivating for such students since it helped them “locate their mistakes”, “correct them”, “decorate their work”, “publish it”, and finally “hang it in the class and in the hallways.” The computer’s special features (e.g. spell-check etc.) and the students’ highly-motivated attitudes
towards the use of a new means of writing like the computer were identified as the major motivational aspects that would encourage the participants to engage the students in computer-based written tasks.

b. Teachers’ sources of support to develop their computer skills (Q13)

Rana stated that she frequently used the computer and the Internet in specific for research. She also used different programs to prepare the instructional materials like the signs and the posters for her classroom. When asked whether or not she had the opportunity to attend computer literacy training sessions, her reply was “no.” The three remaining teachers (i.e. Nour, Rima, and Juheina) mentioned that they had the chance to develop professionally and learn how to use different computer programs by attending IT workshops and training sessions supported by the school. Moreover, Nour expressed the importance of having access to the school’s computer lab in order to use its resources. Most importantly, she insisted that any taught program has to be practiced on a regular basis. Otherwise, it would be lost. She said “the more you practice, ye2ne (in Arabic) you can learn.. we we they taught us how to use this program, if you don’t use it, then you lose it.” In addition to attending workshops, Rim affirmed that she developed her computer skills through “trial and error”. Juheina said that she only attended “workshops and training sessions targeting IT technology and development.” The participants’ answers were in favor of the school’s administrative support. Their willingness to put an individual effort in order to develop their computer literacy skills was obviously noticed. The teachers’ demonstrated through their responses that the school has supported them professionally by giving them the opportunity to attend IT workshops and providing them with appropriate lab equipments and IT resources.
5. Teachers’ descriptions of the students’ attitudes/reactions when using the computer to write (Q8)

All the participants described the students’ attitudes toward using the computer to write as positive. Only one subject, Rima, believed that the use of the computer as a means for writing did not benefit the passive learners who are present in her classroom since their basic computer skills were not up the standards, thus relatively underdeveloped. However, she admitted that “the majority like it. Some excel, some do well, some learn, some progress, some improve…” She also reported that the students’ happiness in writing on the computer was due to the production of a personal input and a an individual effort. She said “in general, they are happy la2anno (in Arabic) it’s their own input, it’s their own effort without having a boss over their head, so they are their own bosses, so they like that.” Nour focused on the students’ independent attitudes when working on the computer. She remarked that the students seemed motivated while working independently on the computer in order to apply what they have learned individually, in pairs, or in groups. Nour replied “when they get to writing what they’ve learnt, what they want to learn or when they’re doing a web or when they’re uh.. just printing, publishing their work, they do it on their own. So it is a chance for them just to work on their own and they’re motivated to do that.” Rana reported that the students who “are not in the mood to write” or those “who get distracted easily” were motivated by the use of the computer since it helped them focus on the task in hand. As worded by Rana, “if they’re not in the mood to write, it motivates them to write. Uh.. and especially for the people who get distracted easily. When they’re here and they’re in front of the screen, they’re focusing and they’re blocking everybody else out” and “their attitude changes and they
become more enthusiastic about their task and what they’re doing.” According to Juheina, “most of the students have a positive attitude toward the computer.” She stated that they “run to the computer lab” and “they enjoy being in the lab”. “Enthusiastic”, “eager to learn”, and “motivated to start work” were the positive sentiments that reflected their degree of motivation, as stated by Juheina. Using the computer as a means for writing turned the students’ negative attitudes towards writing into positive ones. Moreover, it developed and strengthened the students’ willingness and abilities to write.  

6. Teachers’ perceptions of computer technology in developing their teacher-student and student-student interpersonal relationships (Q9)  

   a. Role of computer technology in developing the teacher-student relationship  

Rana stated that she developed her teacher-student relationship by motivating and encouraging her students to use the computer on a regular basis. Furthermore, she gave the students who wrote “outstanding” written products the chance to “type it out on the computer.” She considered publishing the students’ work in this way as an incentive for the students to write. As a result, computer technology played a role in establishing a relationship between both, the teacher and the students. Nour said that when the students, within a regular classroom setting, sit in groups to accomplish a written task, she tends “to go around the class”, check their work and make sure that everybody is on task. She believed that the students tend to be more focused and less talkative when they are working on the computer. On the other hand, Rima admitted that “kids themselves are are better teachers than we are” and “they can help us as well.” In other words, the use of computer technology helped the students and the teacher exchange roles by supporting
each other and learning from each other by sharing knowledge. Juheina didn’t highlight the role of computer technology in establishing her interpersonal rapport with her students.

b. Role of computer technology in developing the student-student relationship

Rana reported that the students were allowed to work in groups within the regular classroom setting and only when they had to use the Internet in order to conduct a research. However, when they go down to the IT lab, they had to work individually. She mentioned that the students tended to cooperate with one another while searching for information on the Internet. In this situation, computer technology helped the student collaborate with each other, thus developing their interpersonal relationships. Nour and Rana shared the same perception. Nour also allowed her students to conduct their research using the Internet, which developed their cooperative relationship. Rima stated that the students could teach themselves when they used computer technology. However, she didn’t identify the role of computer technology in developing and strengthening the students’ relationships. Juheina claimed that the “students are usually engaged in individual work” inside the computer lab. As she mentioned, the students who are seated besides each other are encouraged to help one another without disrupting the classroom atmosphere. The IT teacher intervenes to offer her support only when the students seem unable to help each other anymore.

7. Teachers’ descriptions of their role as the students use the computer as a writing tool

(Q11)
Rana didn’t describe her role as a teacher when she assigned written tasks for her students to complete on the computer. She just reported the kind of tasks that she asked her students to accomplish using the computer. She said “for me I usually pick up pieces and I ask them to write... um... to type them on the computer.” Nour talked about the crucial role of the IT teacher in assisting her students throughout the completion of their written tasks. She emphasized that the role of the IT teacher is to teach the students how to use and apply the features of a specific program like “Inspiration” in order to come up with a well-written “final product.” As she expressed, “if we need to teach them something that’s new like using the uh... uh... Inspiration program or drawing a chart or whatever, we always uh... I always have the computer teacher with me because there are times when... sometimes I forget to tell them because I take it for granted I know how to do it so I forget to tell them the... every single step.” She clarified that planning computer-based activities takes place ahead of time and it requires the contribution of the class teachers as well as the IT instructor. Rima described her role as a “facilitator” since “she will be facilitating things” and interacting with the students and the available piece of technology known as the computer in order to gather and exchange information.

Juheina’s answer to this question was very concise. She shed light on her responsibility as an IT teacher who was supposed to help the students’ develop their computer skills. She further explained that the role of the class teachers is “to plan for the content.” From the data, it can be inferred that two out of four subjects were unable to define their roles vis a vis the students who were expected to use the computer as a tool for writing.

8. Teachers’ perceptions of computer technology in developing the students’ writing competency in terms of quality and quantity (Q12)
Rana claimed that she couldn’t tell the whether or not the use of the computer is helping her students improve in terms of writing quality and quantity. She wondered if the spell-checker is being used by the students at the expense of the traditional dictionary, and thus making the students “lazier.” She pointed out that she was concerned in evaluating the students’ computer-based written work in terms of content and ideas. Nevertheless, she didn’t overlook the format. Similarly, Nour stated that she focused more on the writing and what was expected from the students to write like “a paragraph that is... has a topic sentence, six sentences and a closure. She asserted that the students were aware of the computer task expectations before they initiate it. She also expressed her interest in the quality of her students’ final products. She said that her students “used uh.. pictures, they used different font, different colors “and “they added some words to it, some vocab words.” Rima affirmed that she “cannot tell at this moment” whether or not the use of computer technology has a positive impact on her students’ writing quality and quantity. She conveyed that she is primarily concerned in evaluating the students’ written work in terms of ideas. She pointed out that her students are always aware of the criteria that she uses in order to assess their written products. As she stated “they know my criteria (she stresses on “know”). It’s not a surprise criteria. They know I’m looking for the ideas, and when I’m looking for mechanics, I tell them you’ll have a grade for content and a grade for mechanics. So they can... they know what to expect.” Juheina suggested that by checking two published written work that belong to the same students, she could know whether or not “he incorporated the IT skills” like knowing “how to format, how to align, justify.” The data revealed that the interviewees focused on assessing the content rather than the format of the students’ computer-based written assignments. Moreover, two
participants were able to develop a set of criteria or expectations that guided the students throughout the completion of their written tasks on the computer, and enabled the teachers to tell if the computer was helping their students develop their writing skills.

9. Teachers’ comments (Q14)

Rana viewed IT as “incredible.” She also commented “it’s a great tool for creativity which is my... kind of... focus.” On the other hand, Nour expressed her desire to “have a computer for every student in class.” She aimed at increasing the student’s opportunities in using the computer on a daily basis as a resource that would help them access interactive sites that address concepts in different subject matters. She also proposed if the school can start by incorporating five computers per every classroom in order to end up having a real computer center.

Observations

The observational data shed light on the types of interactions that occurred inside the IT room. They also revealed students’ attitudes toward using computer technology to accomplish their written tasks in addition to the IT as well as the class teachers’ instructional methods in helping the students complete their computer-based written tasks. An observational checklist was used to report accurately students’ attitudes toward using the computer. It is important to mention that the participants’ were observed inside the IT room.

1. Classroom interactions

   a. Student-student interactions

Although they had to work independently on their computers, the students acted as peer-coaches throughout the completion of their written tasks. The IT and classroom teachers
encouraged them to help each other by providing an oral feedback. The participants were observed acting as volunteers offering assistance to each other. When S23 didn’t know how to highlight the assignment’s title, she received help from her classmate who was sitting next to her. Moreover, when Rana didn’t know how to use a specific feature in Print Artist and thus couldn’t help the students who needed assistance concerning the use of this specific feature, she asked nearby students to help her in assisting the students who asked for help. The participants (i.e. students and teachers) established a mutual relationship among each other.

The students were engaged in learning opportunities where they had the chance to work in pairs “to agree on the same picture”, but they had to produce two different versions of the same task by writing their own interpretations of the chosen picture. The observations showed that the students spent much time agreeing on a picture.

Although they had to work in pairs, S13 and S7 were not seated in a way that would facilitate cooperation. They hardly communicated with one another and they disturbed the classroom ambiance by their conversations.

b. Teacher-student interactions

The IT teacher as well as the three classroom teachers supported the students throughout the completion of their written tasks. They moved around in the computer room to assist the participants on an individual basis. Rana and Rima didn’t encourage all the students to pay attention to their spelling mistakes, capitalization etc. In other words, they didn’t help the students to focus on the quality of their written products, whereas Nour did. S12 showed the researcher his work on the computer screen before printing it out. The
student's work included some spelling mistakes that Rana did not pay attention to when she passed by the student to check his work.

Although the students were encouraged to type with both hands, some did not try to type using their ten fingers. Juheina kept on telling them "try to keep your ten fingers on the keys", "try not to look at the keyboard", and "use you two hands, God gave you two hands to use them." The students were observed using their ten fingers only when they had to practice typing on Mavis Beacon. In other words, they didn't use both hands to type their written tasks on the word processor.

The IT teacher constantly reminded students to save their work before the end of the class session as it is exemplified in the following statements. Students were urged to save their work even if it was incomplete.

Juheina: "Make sure you're saving, it's almost nine."
Juheina: "Don't forget to save your work."
Juheina: "I want you to save right now because the bell will ring, you will finish it next week, push in your chair."
Juheina: "Save your work and exit."
Juheina: "We need to save please."
Juheina: "I advice you to save now. Altogether go to File→ Save As→ My Documents→ Double click 4B. You should be reading 4B up."
Juheina: "I want everyone of you to save his work please."

On the large TV monitor, Juheina showed the students how they were supposed to save their work. She also wrote on the white board the steps that they were supposed to follow in order to save their work.

Juheina: "If I want to save my work, I go to File→ Save As→ Descriptive Name: Juheina Invitation→ File Name: JHInv. Don’t leave a space."

The IT teacher encouraged the students who had to work in pairs to use their imagination and creativity while interpreting the picture that they have agreed upon. She made sure
that the students were able to use the functions of Print Artist (i.e. resizing the picture, changing the font) appropriately. She also showed the students how they were expected to interpret the chosen picture.

Juheina: “I want you to use your imagination” and “make sure that you are not making mistakes”. “You should put the title on one line, grab the middle, click and drag”. “Finally, we should put our names and it should be smaller than the text”.

The IT teacher always reminded the students to employ the appropriate printer.

Juheina: “When you print your work, you should use the 3700, the colored printer”.
Juheina: “Use the 5200 printer because it’s black and white”.
Juheina: “Yes, you save and print your work. Don’t forget to use the black and white printer.”

Nevertheless, some students printed their work using the inappropriate printer. In addition, when the researcher asked some of the participants to make two copies of their written products, she noticed that they didn’t know how to print out more than one copy.

On the other side, Rima was observed circulating in the classroom with no purpose in mind and then chatting with a colleague about daily issues inside the computer room instead of moving around to check the student’s performance. Meanwhile, Juheina assisted the students. Additionally, when the students were completing their task about “Sound and Mood”, their teacher remained seated on Juheina’s desk instead of circulating in the classroom to check the students’ performance. Her comments were orally stated as it is shown in the following example. On the other hand, Juheina was observed providing assistance only when called upon.

Rima: “Guys, I need to remind you. You have two illustrations. One about the sound that annoys you and one about the mood.”

The students were motivated to show their teachers their final products as a hardcopy. So they moved around in the computer room which created a noisy and messy atmosphere.
It was noticed that some students needed extra assistance throughout the use of computer technology. S6 wanted to add some effects to his text, but he didn’t know how to do so. He needed the assistance of the IT teacher who was not present in the computer lab at that moment. Moreover, while students were typing their paragraphs on the computer, S33 needed some help. She wanted to enlarge the page of her document. However, both teachers were busy assisting other students. After getting the class teacher’s approval on the quality of his work, S11 deleted his work. He said “there was no other way”. When I asked him “why you deleted you work?”, he said that he didn’t know how to correct a word he has spelled and typed incorrectly. This showed that he was unable to use the features of the program. All what he had to do is to double click the word and make the corrections. When I told S11 that he could do that, he said “I didn’t know that!”

Nour encouraged her students to edit their work properly before printing it out. She drew their attention on the difference between the homophones “where” and “were” by telling them that “the PC will accept words that it is familiar with, it is just a machine. The PC is not smart, you are the smart ones. It would accept both “where” and were” which are...”. Students replied in unison “homophones”. She said “if the computer underlines the words, it doesn’t mean that it is incorrect. Sometimes you need to check for.. to edit your work”. She also encouraged her students to add colors to their paragraphs that included a set of keywords. She stated “make the keywords in the paragraph bigger, bold, and colorful so it would be easier for you to identify them”. This clearly demonstrates that the students were encouraged to apply the different features of the word processor to their paragraphs. However, some were unable to use them appropriately. S32 and S44 had a
problem with making the keywords in “bold”. While S32 nervously stated “it continues to write in bold!”, S44 asked the researcher “Miss, how we make the word darker?”

Two participants (S44 and S12) were unable to locate the apostrophe on the keyboard and they also didn’t know how to type it. When S44 asked Juheina “Miss how do we put the apostrophe?” Juheina guided him orally by saying “for the apostrophe, you find it next to the letter “Tah” in Arabic, just press it.”

Juheina encouraged the students to focus on the content of their paragraphs in the first place and on the format in the second place. She expressed “finish writing the paragraph first, then you make the vocab words in bold.”

Furthermore, the IT teacher and Rana paid attention to the students’ hands position on the keyboard and body posture while typing on the computer.

Juheina: “Your hands should be parallel to your body”.
Juheina: “Sit straight in your chairs, you hands parallel to your body.”
Rana: “Sit up straight.”
Juheina: “Put your hands properly on the keyboard. Don’t remove your hands from the keyboard.”
Juheina: “Straighten you back.”
Juheina: “Place your hands properly.”
Juheina: “S37, keep your hands on the keyboard.”

On the other hand, the participants listened carefully to their IT teacher’s presentations and to their classroom teachers’ directions. They competed to answer the teachers’ questions throughout the presentations. They were able to make sense of the tasks’ purpose as well. For example Nour made sure that her students have grasped what Juheina has demonstrated by asking them questions such as “why are we doing this?”, “why are we doing this work on the computer?”, “why do you think we’re doing this?”

She also intervened throughout Juheina’s demonstrations to check whether her students were actively listening to their IT teacher and to provide some guidelines on how they
were expected to perform. She asked questions like “why do we need to choose the same picture?”, “what did Miss Juheina do to write her text?”, “can we change colors?”, “first, I finish my work, then I can change colors and I play with the effects”, “the name has to be smaller”, “don’t forget to put the class and section”, “work on the sentence”, “I asked you to proofread your work”. She insisted on checking the students’ work before allowing them to print it out. Nour stated “when you finish your work, you raise your hand and I need to come and check your work for capitalization, spelling mistakes, ideas, and caption quality”. Scenarios 1 and 2 show whether the participants were able to communicate the purpose of the computer-based task. The students understood the idea behind choosing the same picture since they were able to state the reasons for sharing it. Scenario 2 demonstrates that S1 was able to reformulate the requirements of the task in her own words and to communicate its purpose (See Appendix A).

2. Teachers’ instructional strategies in helping the students accomplish computer-based written tasks

To familiarize students with the basic functions of any computer application, the IT teacher started the computer session with a short presentation that would target the main requirements of the computer-based written task. Then, the students were given the chance to apply the computer skills that they have assimilated in order to produce a well-written product. The classroom teachers displayed the structure of the task on the white board. They also raised the students’ awareness of the purpose of the assignment. Juheina used to orally state the objective of every assignment.

Juheina: “Come and sit closer on the floor so I can show you what you have to do. You are going to write an invitation card for Thursday. You have to finish today your card because you celebration is on Thursday.”
Juheina: “Come closer. Please sit on the floor. We will be searching about sound. I want you to use Encarta Kids in order to read, select, and copy paste information in bullet form. First, you have to choose the size 16. Your name should be to the left. Your title in the middle. You will write the definition and what other information you can get about sound in a bullet form. If you have a question, you raise up your hand.”

Juheina: “Today we’re gonna explore each site, next time we’re gonna copy and paste the information from the site and you’re gonna print your work.”

No time restrictions were imposed on the students while accomplishing their tasks. While some were able to finish their work in one session, others needed two sessions to submit their work.

Using the Internet

Scenario 3 shows that the students were taught how to access and use the Internet resources. The IT teacher used a step-by-step procedure in order to help the students gather information from the Internet. The students used Google as a search engine. They were given the chance to explore different sites in their search about ‘Fairy Tales.’ Additionally, they were taught how to be selective and decision-makers in looking up for appropriate information. The IT teacher made the students aware of the difference between using the library and the use of the Internet to search for specific information as it is shown in the next scenario. She also emphasized the importance of reading the descriptions of each site before accessing it (See Appendix A).

Using MS Word and Encarta Kids

The IT teacher taught the students how to use the features of the word processor (i.e. MS Word) and Encarta Kids/Bagpack in order to accomplish the task about “Sound Pollution.” The following statements demonstrate how the IT teacher explained to the
students how to use the features of MS Word. She also drew the students’ attention on common mistakes.

Juheina: “What do we do? We change the ‘Font Size’, I put my name, then I press tab, I write the title of the planner, and then I put the question. To skip several spaces, I press ‘Tab’ several times.”

Juheina: “How do I put the words in the box? (The students didn’t answer) I click for the square symbol, I highlight, then I go to ‘outside border.’ I want to save it, I go to File→ Save As→ IVB→ Juheina Hamad. Don’t forget to change the size to 14.”

Juheina: “After the comma, I leave a space by pressing the space bar.”

Juheina: “Please listen, I don’t want you to repeat the same mistake. Press ‘Enter’, then you highlight the four words and put them in a box.”

Both teachers were chatting inside the computer room while the students were working on their task. However, both teachers helped the students when they were called upon. Although they were allowed to use an electronic encyclopedia like Encarta Kids to search for definitions of specific terms, a student like S20 (See Scenario 4) needed guidance from her classroom teacher since she was unable to understand the meaning of specific words mentioned in each definition (See Appendix A). Both teachers were chatting with their colleague inside the computer room and they left the students unattended. Rima didn’t check the students’ work before printing it out.

One of the students’ computer-based written assignments was to select a journal entry from their English copybooks and to type it on their computers. Rana required the students to get her approval on the journal entry that they were willing to type on the word processor. All the participants took few minutes to decide with the help of the teacher upon the journal entry that they wished to publish except S17. He didn’t know which journal entry to choose and he was left unattended. Then, he started to type the
entry that he has chosen without showing it to his class teacher. When S17 was closely observed, it was noticed that he was primarily concerned in changing the design of the entry’s title, his name, class, section, and date; He just forgot about typing the content of his journal.

Rana encouraged her students to change the font of their journal entries if it didn’t suit the theme that was addressed. Rana asked S11 to change the font of his text by stating “change your font, it doesn’t go with you poem.”

The students were encouraged to copy main information from Encarta Kids and paste them in a MS Word document. In order to avoid plagiarism, they were asked to paraphrase the information that they have gathered and write them in bullet form. Yet, S12 (See scenario 5) didn’t know how to create bullets in MS Word since the IT teacher didn’t remind the students of the use of such feature (See Appendix A).

When Juheina remarked that the students were copying and pasting paragraphs from Encarta Kids, she urged them to stop it. She told them “no paragraphs, I want the main ideas.” Rana asked the students to mention the source of information at the end of the task. S18 (See Scenario 6) asked Juheina’s permission to change the design of her handwriting (See Appendix A). Juheina’s answer implied that she wanted the students to focus primarily on the content of their assignment. Scenario 7 shows that the students were motivated about using the features of MS Word. The IT teacher allowed them to manipulate the program’s features to a certain degree (See Appendix A).

Using Clue Finders

The students used an interactive educational CD that reinforces specific skills in different subject matters, called ‘Clue Finders.’ The students used the headsets in order to listen to
the activities’ directions. Juheina taught them how to plug in the headsets and how to release the mute by clicking on a specific icon shown on the desktop page. S38 faced a technical problem with the headphones. She told Juheina “Miss, I can’t hear.” S46’s headsets didn’t function properly. He felt demotivated while playing the games. Less than four students didn’t exchange the CDs with their classmates due to the lack of resources.

3. Students’ attitudes toward using computer technology to accomplish their written tasks

The majority of the students expressed positive feelings toward the use of computer technology to complete their written tasks and to develop their keyboarding skills (See Appendix A). Since most of the students were beginners in using the program of Mavis Beacon Teaches Typing, it was hard for them to type using their ten fingers. They found the assessment exercises that were provided after each typing lesson challenging as indicated by S8 (See Scenario 8).

The students were highly motivated to use the program of Mavis Beacon as scenario 9 indicates. However, one student expressed a negative feeling toward the use of Mavis Beacon as it is shown in scenario 10 (See Appendix A). Scenario 11 (See Appendix A) presents a student who held a negative attitude toward editing her work on Print Artist. S32 was struggling to accomplish the task quite appropriately. However, she didn’t know how to use the editing feature in Print Artist.

S20 and S21 (See Scenario 12) had positive attitudes toward performing the activity on the computer since they considered the use of such tool as neater than the use of paper and pencil (See Appendix A).
The students enjoyed completing the activity on the computer. S27 and S20 found that accomplishing the task on the computer as creative.

Scenario 14 shows that the participants reported that typing their journals on the word processor was an interesting activity for several reasons. Some believed that the use of such computer application was simply “nicer” and allowed them to produce written products that were neat, free of spelling mistakes, and can be shared in public. Others saw the use of the word processor as “interesting” since it enabled them to learn from their mistakes and publish their work. Although S17 stated that he enjoyed typing on the computer, he claimed that he faced problems in using some of the program’s features since they were addressed by the IT teacher long time ago.

On the other side, the participants’ concentration level while practicing Mavis Beacon was very high, except for some. When the IT teacher felt that the students adopted a serious attitude while practicing the program, she rewarded them by giving them the opportunity to access the educational games (e.g. Multiple Puzzle Hangman, Beginner Jacks etc.) that were installed on their computers. The researcher noticed that the students didn’t use their ten fingers while playing the games that were provided by the software after each lesson. This reveals that their keyboarding skills were weakly developed. The classroom atmosphere while practicing Mavis Beacon was quiet. However, when the students played educational games, the noise level was too high. Rana insisted on having the students play the games silently. She said “you’re playing games but you need to be quiet” (See Appendix A).

Scenario 15 demonstrates that the students were motivated to start using the features of Print Artist in order to create their invitation cards. Some spent a lot of time in choosing
the invitation card's cover page. They couldn't decide upon a picture to use as a cover page since they were fascinated by the wide variety of pictures that were provided by the program (See Appendix A).

Document analysis

Samples of the participants' word-processed written products were collected and examined by the researcher. The students accomplished four computer-based written tasks within a three months period (i.e. duration of the study). The participants' performance on every task is analyzed separately. The researcher developed and used specific rubrics to analyze the students' writing samples. The use of such data collection instrument enabled the researcher to identify the extent to which computer technology is helping fourth graders develop their IT as well as their language skills.

Task 1: Writing a caption using Print Artist (See Appendix J)

Description: The students were supposed to work in pairs in order to select a picture. However, they had to work individually in order to interpret the common picture that they have chosen.

Analysis: The majority of the students gave their task a title. Nevertheless, while some students didn't write the title on one line, others forgot to capitalize the first letter of the words that make up the title. This shows that some students didn't know how to use the features of the program and they didn't receive the needed support form their IT as well as their classroom teachers. Although the participants' captions included spelling and punctuation mistakes, they underlie creative and original ideas. This indicates that the main purpose behind allowing the students to work in pairs was not fulfilled since the students were not given permission to check each others’ work. The participants printed
their work using the color printer. However, they felt reluctant when the researcher asked some of them to print more than one copy. The participants’ overall work is clear and neat. However, some students added colors to their texts in a way that bothers the reader’s vision. They were interested in using the programs’ effects instead of focusing on enhancing the quality of their captions. Most of the students wrote their name, date, class, and section. However, they didn’t resize such elements in a way that would display them proportionally. The participants’ work quality indicates that the IT and classroom teachers didn’t hold their responsibilities toward their students. In other words, the students’ work was not checked properly by the IT and classroom teachers although the students were notified that they had get the teachers’ permission before printing out their written products.

Task 2: Making an invitation card using Print Artist (See Appendix J)

Description: The students were supposed to make an invitation card on the occasion of celebrating their end of planner. The students were told that the invitation should go to one family member.

Analysis: All the participants selected nice and colorful cover pages, except few who decided to choose cover pages that had nothing to do with the assignment’s theme. Additionally, the teachers’ didn’t call the students’ attention on the importance of choosing a picture that would be attractive, meaningful, and relevant to the current theme.

The cover pages included different titles. While some students preferred to write the name of the planner on the cover page, others favored to write expressions like “Let’s Celebrate” and “It’s Showtime!” Some students wrote irrelevant expressions like “Let’s party”, “the Card of Beauty”, and “Show Biz” on their cover page. Some participants
wrote “our selves” instead of “ourselves” and they were not held aware of their common mistake. Moreover, the students wrote the time, date, and place of the event. They also wrote the content of the invitation. Nevertheless, they didn’t resize the text in a way that would make the reader easily identify the structure of the content. While some participants addressed the invitation card to one parent as it was required by the classroom teachers, others preferred to address it to more than one family member. This clearly shows that the IT and classroom teachers didn’t remind the students of the task requirements throughout its completion. Additionally, the content of the invitation was not free of spelling, punctuation, capitalization, and spacing mistakes. On the other hand, the colors and the font style and size used by some students were distracting. Obviously, the program’s effects encouraged the students to put more emphasis on the form rather than the content of the task. Furthermore, all the students use the color printer in order to print their work. However, the researcher was surprised when she discovered that some of the participants didn’t know how to print out more than one copy. The participants presented work of good but not excellent quality. For instance, the quality of their work could have been better and neater if they would have not only received the proper guidance of their IT and classroom teachers, but also followed their directions more seriously.

Task 3: Gathering information about ‘Sound’ using Encarta Kids and typing the information in Microsoft Word (See Appendix J)

Description: Since they were starting the new planner “How the World Works”, students in Grades IVA and IVC were expected to use Encarta Kids, which is an electronic encyclopedia in order to collect information about ‘Sound’. Then they were supposed to
paraphrase the information before typing them in bullet form in Microsoft word. Yet, Grade IVB students were expected to use Encarta Kids in order to look up for definitions of four different keywords: “sound”, “noise”, “mood”, and “noise pollution”. They also had to paraphrase the definition and type it in Microsoft Word. Moreover, they were supposed to construct a meaningful sentence that includes the suitable keyword.

Analysis: Participants in Grades IVA and IVC sections gave their task a title and a subtitle except Grade IVB students who just wrote the title of the new planner. There was a slight difference in the implementation of the task in Grades IVA, IVB, and IVC. Students in Grade IVA were asked to write the source of the information at the end of the task whereas Grades IVB and IVC classroom teachers didn’t require their students to cite the source of information as a reference. On the other hand, the difference in implementing the task in Grade IVB was significant as it was previously reported in the ‘Description’ section. This shows that the classroom teachers didn’t coordinate with one another on how they would best design such computer-based activity. The information that the students have come up with in Grades IVA and IVC were interesting. However, they were not written in a way that shows their order of importance (i.e. from the most important to the least important) since the classroom teachers didn’t ask the students to write them accordingly. Some participants in Grades IVA and IVC just copied and pasted the information in Microsoft Word without paraphrasing them although they were told to do so. On the other side, IVB participants have meaningfully defined the keywords. However, some didn’t use the terms in a well-structured sentence. One student in Grade IVB used abbreviated terms like “def” instead of “definition” and “sen” instead of “sentence.” This demonstrates that the student didn’t pay attention to the classroom
teacher's directions that necessitate the use of full terms. Some students in Grades IVA and IVC didn't write the statements in bullet form whereas all the participants in Grade IVB were able to provide a structure to their task as recommended by the classroom teacher. Although he didn't paraphrase the information, a student in Grade IVC used different font style and size of the text which was too short. This reveals that the student focused on using specific functions of the word processor instead of working on paraphrasing the content. Moreover, some students in Grade IVC included facts about 'sound' just for the sake of collecting information about this concept. Others mentioned the same statements twice with no valid reason. The majority of the students wrote their names and date at the top of the page. They were also able to resize the text to make its parts identifiable. However, some used 'double spacing' for no obvious reason. The students' typed information included spelling, punctuation, capitalization, and grammar mistakes. The quality of the subjects' work reveals that it was neither reviewed by the students, nor supervised by the teachers.

Task 4: Typing a paragraph 'The Red Writing Hood' using Microsoft Word (See Appendix J)

Description: Grade IVC students were expected to type their paragraph 'The Red Writing Hood' in Microsoft Word. They were supposed to include the following vocabulary words in their paragraphs: "script", "triumphantly", "circumstances", "desperately", "acceptable", "injustice", "discards", and "repentant." The students were held aware of the meaning of each term by providing them with their synonyms.

Analysis: While some participants gave a meaningful title to their task, others wrote not only a title but also a subtitle. Some of the latter's tasks included meaningful titles but
meaningless subtitles and vice versa. Some participants’ paragraphs included spelling, punctuation, capitalization, and grammar mistakes. This indicates that such participants’ typing skills were underdeveloped and they didn’t review the content of their task due to their unwillingness and lack of their IT and classroom teachers’ support throughout the accomplishment of their written products. The students’ writing samples show that some didn’t fulfill the requirements of the task since they have included less than eight words in their paragraphs while others didn’t use the word in its suitable context, thus weakening the structure and the cohesiveness of the paragraph. However, the majority of the participants expressed original and creative ideas in their paragraphs. One participant got confused between the use of brackets and the use of quotations. To quote the interlocutor, she used brackets instead of using quotations. Some participants forgot to make the vocabulary words in bold although it was one of the task requirements. Others preferred to make the words colorful. This indicates that the students were able to use the basic features of the word processor. While some students maximized the title’s font size, others kept the title and the text’s font size equal. This reveals that the students were not asked to pay attention to the importance of having the title’s font bigger than the text’s font.
CHAPTER FIVE
Discussion

This present research study describes fourth grade ESL teachers and students’ perceptions of the use of CALL and demonstrates the extent to which CALL motivates the students to develop better L2 writing skills. This chapter presents an interpretation of the results in light of the literature review.

Questionnaire

The analysis of the questionnaire’s data revealed the participants’ consistency in holding positive perceptions and attitudes toward the use of computer technology to accomplish their written tasks.

The majority of the students had positive perceptions of the quality of their computer-based written products. They believed that the use of computers enabled them to edit their work, organize their ideas, correct their spelling mistakes, produce written products that are neat, design and publish creative products. According to Burns, et al. (2002), students tend to adopt positive perceptions toward editing and revising their work on the computer, and they feel encouraged to produce creative writing tasks when the computer is employed.

A large number of respondents expressed positive perceptions toward attending computer lab sessions in addition to their perceptions of the quantity of their computer-based written products. They considered attending computer lab sessions as beneficial since they helped them develop their writing skills. It seems that the computer lab was considered by many students as a production lab since it enabled them to produce work of good quality (Ancker, 2002). The subjects also stated that the use of computer
technology encouraged them to write more. This finding supports Barker’s (1990) who found that students who are given the chance to write creatively on the computer are those who end up producing lengthy written products.

The participants considered their knowledge of the Internet as well-developed and perceived its use as beneficial since it enabled them to gather relevant information. Windeatt, et al. (2000) believe that using the Internet enable the students and the teachers to access the wide array of information that are posted online.

The students’ attitudes toward writing on the computer were examined as well. A large percentage of the sample population considered the use of computer technology as enjoyable and full of excitement. Such finding is consistent with Ancker’s (2000) who considers the act of writing on the computer as an opportunity that stimulates the elementary students to improve their communicative skills. Moreover, the students’ frustration and anxiety levels tend to diminish when they write on the computer whereas their motivational level toward writing on the computer tends to increase. This finding is in disagreement with Matsumura and Hann’s (2004) who reported the feelings of frustration and anxiety experienced by many students whenever they had to use the computer as a tool to accomplish a written task.

The students’ attitudes toward typing a written assignment on the computer were taken into consideration. The participants developed a high confidence in their typing speed and keyboarding skills, thus showing positive attitudes toward typing their written assignments on the computer. Goldberg, et al. (2003) maintain that the students adopt positive attitudes toward the completion of their written tasks on the computer especially if their keyboarding skills were developed quite well.
The participants considered the act of displaying the students’ computer-based written products on bulletin boards as a motivator to write. Moreover, enabling the students to print out their work motivated them to write. Nearly half of the participants preferred to brainstorm their ideas straight on computers than on paper. The literature didn’t support the three previously stated ideas.

Minorities were the students who expressed negative perceptions and attitudes toward the use of computer technology in the writing classroom. Their lack of keyboarding skills, high frustration level, and the notion of brainstorming their ideas straight on computers were among the factors that prevented them from thinking positively toward the use of computer technology to accomplish a written task.

Students’ focus group interviews
Interviewing the forty eight participants reported their different attitudes and perceptions toward the use of computer technology in completing their written products. The interviews also gave the students the chance to express their positive and/or negative experiences with the use of computer technology.

The participants agreed upon the use of the computer as a favorite means of writing. This indicates that the majority of the participants had positive experiences with the use of computer technology. Producing neat and organized products with fewer mistakes, typing faster and saving their work were among the reasons that the students have stated when they have chosen the computer as a favorite tool for writing. Such findings were consistent with one of the questionnaire’s findings. According to Bialo and Sivin-Kachala (1996), the production of high-quality texts is due to the use of the word processing
software. Moreover, Barker (1990) stresses that the use of word processing programs tends to save the students' time during the editing and revision stages.

The students' attitudes toward completing their written assignments without the use of the computer were negative. This implies that they hold positive attitudes toward the use of computer technology in the writing classroom. The participants affirmed that the use of the computer helped them enhance their typing skills through fun, produce written products that are neat, organized, and free of errors, express their sentiments, develop their information-gathering skills through the use of the Internet, and develop their CMC skills. Many researchers have found that the immersion of language learners in interesting computer-based activities would enable the students to enjoy the language learning experience and express their thoughts through direct communication with different individuals (Thompson, 1978; Trush & Trush, 1984; Herron, 1994; Kern, 1995; Morran & Sefle, 1999; Goodwyn, 2000; Warschauer, 2000; Hart & Hicks, 2002).

The study also revealed the students' perceptions of the positive and negative aspects of using the computer to write. The findings were consistent with those that were previously mentioned.

Based of their experiences with the use of computer technology to complete a written assignment, the participants were concerned in using the Internet to collect information and the spell-checker to correct their spelling errors. Furthermore, other participants described the computer as a creative, fun, nice, and easy-to-use tool that enables them to develop their typing as well as their research skills. Lam and Pennington (1995) assert that the use of the word processor enables the students to have fun and be excited while accomplishing their written tasks since their perceptions of the writing act is no longer
negative. Moreover, Stannard (2007) stresses that the use of the computer as a tool for
writing enables the students to actively construct their informational repertoires by acting
as material researchers and analysts.

The majority of the participants were proud of what they have produced as written work
on the computer. This finding implies that the students’ confidence and self-esteem were
raised by the use of the computer technology throughout the writing activity. Many
researchers point out that the use of educational technology in the language classroom
allows the students to develop not only their receptive and productive skills but also their
self-confidence, self-esteem and self-concepts (Lam & Pennington, 1995; Bialo & Sivin-
Kachala, 1996; Stepp-Greany, 2002).

A large number of respondents emphasized the use of the Internet to accomplish their
written activities. The major use of the Internet was to conduct research, collect
information, and pictorial items. Nevertheless, few students held negative perceptions
toward the use of the Internet for several reasons. While some lacked the Internet access
at home, others found difficulties in using it. Moreover, some students were aware of the
unsafety of the Internet; therefore, they tended to use educational CDs and more
specifically electronic encyclopedias to fulfill the requirements of their written
assignments. As Moss and Southwood (2006) argue, the Internet is considered as a
motivator that facilitates the students’ accomplishment of their research tasks.

Conversely, the Internet can be considered as a demotivating factor especially when it
misleads the students by the vast amount of information it displays. The idea of the
Internet safety procedures was not addressed throughout the literature.
Parents and siblings were the individuals who supported the participants at home. Some students were confident enough in their computer skills when they stated that they were used to solve the computer-related problems at home by themselves. At school, the IT and the classroom teachers were the persons who offered support and guidance to the students. In addition, students sitting besides each other were allowed to peer-coach one another.

The students perceived the use of the computer as important, entertaining, and non-traditional, and time-saving. They wished whether every person in the world could have one. Lam and Pennington (1995) believe in the multifunctional aspect of word processors that can turn the traditional product-oriented writing experience into a collaborative process-oriented one. On the other hand, some students were aware of the different uses of the Internet. In addition to using the Internet as an information-gathering tool, the participants were familiar with its use as a medium that would facilitate communication among people around the globe. Furthermore, they were aware of the danger of using websites and Internet resources that were not safe. Burns, Roe, et al. (2002) suggest the need to provide the students with a list of reliable websites that can be accessed by the students without fear.

Teachers’ interviews

The writing assignments that the students were supposed to accomplish on the computer were not only based on their needs and interests but also on the classroom teachers’ instructional objectives. Burns, et al. (2002) maintain that the use of any technological tool has to help the students meet their real-life needs (e.g. note-taking, formulating questions, proofreading, editing material etc.). In this study, the teachers considered the
young students' needs by engaging them in experiences that enabled them to develop their writing skills (Childers, et al. 1998). Moreover, the students go the computer room with a pedagogical purpose in mind (Ancker, 2000). Instead of sitting and receiving information, they use computer technology to create written products and feel empowered technologically (Ancker, 2000).

Based on the teachers' experiences in implementing computer technology in the writing classroom, it was found that the students used different computer applications to fulfill different pedagogical goals throughout the completion of their written tasks. The interviewees reported that the students were involved in different writing activities. They were asked to gather information using the Internet, type them on the word processor after having them paraphrased. However, the teachers didn't stress the need to teach the students how to select and analyze the information critically and see whether it was relevant or not to be retrieved (Warschauer, 2000; Ancker, 2000; Moras, 2001).

Moreover, the word processor was used by the students for typing their journal entries whereas web organizer programs were employed to help the students clearly present their ideas. The lack of computer resources within the regular classroom setting was considered as a major threat to the successful implementation of computer technology. This idea is consistent with what many researchers have found regarding the lack of computer resources, quality software, and technical support in impeding the process of accomplishing a written task on the computer (Moras, 2001; Ward & Mul holland, 2006). Additionally, the act of saving their work on the computer as well as printing it using the appropriate printer (i.e. their computer skills) were identified as the main difficulties that were faced by the students. As Dunkel (1987) and Lasagabaster and Sierra (2003) point
out, the success of any computer-based writing experience depends on the teacher as well as the students' familiarity in manipulating the computer's functions.

The teachers' perceptions of computer technology and the Internet in developing the students' writing competence were positive. They believed that the use of word processors facilitated the students' production of creative and well-edited written materials. According to different researchers, the students seem stimulated and curious when they use a word processor to complete a written task and they end up developing creatively their target language (Lam & Pennington, 1995; Bialo & Sivin-Kachala, 1996; Jung & Kim, 2004). Moreover, although they positively perceived the use of the Internet as a motivating tool for communication and information gathering, they believed that such tool might lose its effectiveness if it was overused and either misused by the students. They also emphasized the need to have the students paraphrase the information that they collect via the Internet in order to avoid the act of plagiarizing. Warschauer (2000) stress that developing the students' and teachers' Internet skills is a necessity in the language learning process since it enables them to feel confident and empowered.

In the interviewees' opinions, the motivational factors that encouraged them to engage the students in computer-based writing activities were the computer's special functions (e.g. spell-checker), the students' motivated attitudes toward the use of such new means of writing in addition to the professional, technical, and technological support that their school has offered them. Burns, et al. (2002) believe that the students' positive and enthusiastic attitudes toward writing on the computer are due to the computer program's special features. Furthermore, Windeatt, et al. (2000) argue that the students' high motivational level throughout the use of the computer is due to the novelty of the
medium. It is also due to the availability of resources and technical support as stated by Yunus (2007) and the teachers’ preparedness in helping the students overcome their computer-based obstacles as claimed by Barker (1990). Hamilton (2005) emphasizes the young learners’ intrinsic motivation to use the available piece of technology.

The teachers described the students’ attitudes when using the computer as a means for writing as positive. In other words, they reported that the use of computer technology encouraged the students to develop and enhance their writing skills. This indicates that using a computer to write has a positive effect on the students’ attitudes, thus improving their writing achievement. According to Goldberg, et al. (2003), using a word processor helped the students develop their writing skills in terms of quality and quantity since it enabled them to edit and revise their work, thus enhancing its quality.

The study found that the use of the computer as a tool for writing developed the student-teacher as well as the student-student interpersonal relationships. The teachers and the students were able to exchange information, share knowledge, and learn from each other when computer technology was used. Only the students that were seated besides each other were allowed to work in pairs when allowed and to help one another when needed, and therefore develop their social relationships. Dornyei (2003) states that the quality of communication that occurs between the interactants can influence their motivational level.

While two teachers didn’t know how to define their roles vis a vis the students in the computer-based writing classroom, one teacher described her role as a facilitator whereas the IT teacher’s role was to help the students develop their computer skills. This indicates that the teachers’ unawareness of their duties in the computer lab might negatively impact
the students' motivational level throughout the completion of a written assignment, and thus lower the quality of their performance. Goldberg, et al. (2003) maintain that the teacher's role as a facilitator in the computer-based writing classroom has stimulated the students' motivation and developed their independent language learning strategies. The interviews' data also showed that the teachers tended to focus more on assessing the content of their students' computer-based written assignments. This finding is congruent with Oladejo's (2005) who highlights the importance of providing the students with clear and understandable feedback as well as interacting with them after the correction of their written products.

The teachers' comments revealed that they perceived the use of the computer as a tool that would develop their creativity. They wished if the school could provide every classroom at CLS with at least five computers. This also proves that the use of such tool at CLS is being positively perceived by the teachers.

Observations

The classroom observations demonstrated that the students' attitudes while using computer technology to complete their written tasks were positive. Moreover, they identified the teachers' instructional strategies that were exclusively employed in the computer room.

The study has found that the students interacted with one another through pair work. They also helped each other in solving computer-related problems. This finding is similar to the ones found by Lam and Pennington, (1995); Goldberg, et al. (2003).

The teachers were observed interacting with the students on a one-to-one basis. However, the quality of the assistance that was provided to the students didn't help them present
work of good quality. This implies that the teachers believed more in the use of
technology as a powerful tool in the writing classroom rather than believing in their
interactions with their students. This finding is in disagreement with what was found by

The teachers encouraged the students to use their imagination on a regular basis in order
to produce creative written products on the computer. This indicates that the teachers
tried to create positive learning environments that enabled the students to use the
computer and fulfill the requirements of their tasks. Warschauer (1996), Ward and
Mulholland (2006) supported this finding.

Some students were observed struggling with the use of the computer as a tool for writing
since they either lack some basic computer skills or were unfamiliar with the use of the
programs’ special features. This finding was not consistent with Pennington’s (1989) who
believed in the use of the computer since it makes the students’ writing process less
tedious.

The teachers helped the students make sense of every task’s purpose. This finding agrees
with Burns, Roe, and Smith’s research.

The teachers didn’t allow the students to print out their work before having checking it
out. As Goldberg, et al. (2003) point out, one of the teacher’s duties is to help the
students proofread their written work.

The students worked at their own pace while accomplishing their written tasks.

The use of computer technology for writing extrinsically motivated the students who were given the chance to play educational games whenever they worked seriously on the completion of their tasks. The literature didn’t support the previously mentioned finding. Document analysis

The analysis of the students’ writing samples revealed that the use of word processors, electronic encyclopedias, and the Internet facilitated the accomplishment of the students’ written assignments. However, although the content of the students’ work included creative and interesting ideas, its quality demonstrated that the students didn’t use or didn’t know how to use some the main word processor’s features appropriately in order to revise and edit their work. Spelling, punctuation, capitalization, and grammar mistakes were featured in most of the students’ writing samples. This finding was inconsistent with Lam and Pennington’s (1995) as well as Goldberg, et al.’s (2003) who claimed that the use of word processors tend to decrease the number of mistakes during the revision phase. Moreover, the students were more interested in using the effects of the word processor such as coloring the font and changing its size.

In addition, the students’ written products that were supported by the use of the Internet and the word processor demonstrated the students failed to paraphrase the Internet-based information. This implies that the students didn’t receive instructions in paraphrasing information that were not their own. The literature didn’t address the importance of teaching young learners the notion of paraphrasing in their early school years.
CHAPTER 6

Conclusion

The researcher has examined the use of different CALL in the fourth grade ESL classroom at CLS. Findings have revealed that the students as well as the teachers held positive perceptions toward the use of CALL in the writing classroom. The majority of students considered the use of computer technology as motivating since it enabled them to have fun while producing written products that are creative, neat, organized, and free of mistakes in addition to helping them express their feelings and gather relevant information to fulfill the requirements of their writing tasks. On the other hand, the teachers perceived the use of computer technology by the students as beneficial since it facilitated the production of creative and well-edited products, developed the students' research skills in addition to developing the student-teacher as well as the student-student relationships. The lack of the basic computer and research skills were identified as the major factors that prevented the students from presenting written work of high quality.

Recommendations

A variety of recommendations can be made out of this study and be related to the successful implementation of CALL within the writing classroom:

- The teachers should not allow the students to print out their computer-based written work unless they make sure that is neatly presented and well-edited.
- The teachers should actively monitor the students' performance throughout the accomplishment of their tasks. Otherwise, the published version of the students'
task will be ranked as moderate or low in quality since it might include different types of mistakes.

- The students should be taught how to access reliable websites in order to locate and select relevant information that would help them fulfill the requirements of their written assignments. Moreover, they should learn how to paraphrase and cite the information that they have collected via the Internet in order to avoid plagiarism.

- The teachers should encourage the students to focus on the neatness of their writing. They should help them use the computer programs’ features in order to enhance the quality of their written products not the opposite. Although this study showed that the students included creative ideas in their written products, they tended to misuse some of the programs’ features, which lowered the quality of their writings.

- To ensure the development of their students’ keyboarding skills, the teachers should provide every student with a keyboard pad that would hide the letters on the keys and prevent the students from looking at the keyboard while typing.

- The teachers should attend professional development training sessions that target the issue of assisting the students in the computer room. In this way, they will be held more aware of their duties vis a vis the students.

Limitations

The study attempted to answer the single research question stated in chapter one.

Nevertheless, a number of limitations can be identified. No generalizations about the entire Grade IV population in Lebanon can be drawn out of this research until a larger
sample is tested. Another weakness in this study is the fact that it is still unclear whether a correlation exists between the students' different types of mistakes and the quality of the computer resources that are being used. Furthermore, this study does not guarantee the students' future attitudes and perceptions toward computer technology since they might be required to use different computer resources in order to complete their written assignments.

Implications

The research findings implicate that the use of computer technology in the writing classroom must be carefully integrated in the writing classroom. In other words, computer-based writing activities have to be carefully planned and the students' performance throughout the completion of such tasks must be closely monitored.

Suggestions for further research

In this study, the students produced written work of moderate quality although they had positive perceptions of computer technology and demonstrated positive attitudes toward its use. As a result, future research must explore whether or not the students' moderate achievement in computer-based writing is being affected by the IT teacher's instructional strategies, lack of proper assistance in the computer room, or the quality of the available technological resources.

Achievement

The present research study yielded significant findings that are particularly related to the motivating factors that encouraged the students to successfully accomplish their computer-based written assignments. The students as well as the teachers' perceptions toward the use different computer applications in the writing classroom were
acknowledged. It is worthy to note that the study is unique since it examined the ESL and the native-English-speaking students' motivation when they used different CALL in the writing classroom.
References


Assis, K. R. (2001). Fourth grade elementary students perceptions of the motivational aspects of using computers to write in the “Students as Authors” project. Published master’s thesis, West Virginia University, Morgantown.


APPENDICES
### Appendix A

Observation Checklist

**Students' Attitudes Toward Using the Computer**

<table>
<thead>
<tr>
<th>Observation</th>
<th>Date</th>
<th>Class</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>N = Never</th>
<th>S = Seldom</th>
<th>O = Occasionally</th>
<th>F = Frequently</th>
<th>C = Continually</th>
</tr>
</thead>
</table>

1. Seem motivated and excited.

2. Feel comfortable and relaxed.

3. Appear happy and content.

4. Appear anxious and fearful.

5. Appear discouraged and frustrated.

6. Seem confused about using the computer.

7. Need guidance to accomplish their computerized written work.

8. Are aware of how to work with their partner on the computer.

9. Complete their computerized written assignment on time.

10. Seem satisfied with their written product.

**Comments**

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
Scenario 1

Diana: “Why should you choose the same picture?”
S23: “because we need to write a caption under it and compare them”
S27: “you have different interpretations about the same picture”
S21: “because after that we have to write our own description.. caption”
S24: “because we need to write different ideas about the caption”
S26: “the task is about nature and we need to convince people”

Scenario 2

Diana: “What are you expected to do?”
S1: “We’re supposed to search the new versions stories, like Cinderella, we’re supposed to see the new version of her. With the new version I mean by, we have to... the people that change the stories but same characters. Like The Red Riding Hood and The Three Little Bears, and Goldi Locks, there’s another version called Goldi locks Returns... so new versions about them, we’re supposed to search for them.
Diana: “Are you supposed to change the characters, make the good characters bad and the bad characters good?”
S1: “Up, in groups, we’re changing into new versions, like Ropanzel or... or.. Snow White and the Dwarfs, and we’re looking for a way to make them another versions. So we’re creating into like the bad people, we’re defending them.”

Scenario 3

Juheina: “Are we all in Google?”
Students: (in unison) “Yes.”
Juheina: “Type the word ‘Fairy Tales’ in the blank space. Type it properly. Please stay with me. The moment you typed ‘Fairy Tales’, what did you get other than pictures?” (The students read what they got on the screen.)
Juheina: “I’m not asking you to read. What did it show you on the screen?”
S14: “A list.”
S13: “It will give me a list of sites and links.”
S7: “It will show me a list of sites and links.”
Juheina: “If you are looking for Fairy Tales but without using the computer, what do you do?”
S6: “We ask the teacher in the Library.”
Juheina: “Miss Lena is a librarian, she will show you the stand and you will find a shelf full of books, do you always find the information that you need?”
Students: “No.”
Juheina: “The list is the stand where you have all the books. How do I know that this site is suitable for me?” (The students didn’t answer.)
Juheina: “If you look at the link or the site, it’s in blue. Before you enter each site, you can read the descriptions about each site. Today we’re gonna explore each site, next time we’re gonna copy and paste the information from the site and you’re gonna print your work.”
Scenario 4

S20: “What does ‘expose’ mean?”
Diana: “When people are exposed to noise pollution, it means they are facing the problem of noise pollution.”

Scenario 5

S12: “Where do we find the bullet points?”
Diana: “You right click the mouse, you read ‘bullets and numbering’, you click it and then you choose the bullet you like.”

Scenario 6

S18: “Can we write in a different handwriting?”
Juheina: “No, not now.”

Scenario 7

S4: “Miss Juheina, can we choose size 14 because size 16 is too big.”
Juheina: “Yes, but neither 12 not 18.”

Scenario 8

Diana: “Do you find Mavis Beacon interesting?”
S23: “Yes, very nice!”
S22: “Yes. Very interesting!”
S27: “Yes. It’s interesting!”
S21: “Yes.”
S12: “It’s hard, but it’s interesting! The hardest thing is when I type and I don’t look at the keyboard.”
S1: “It’s interesting for the future when you need to type a lot. I practice it at home, I have the CD, my sister used to use it and at home I reached the Intermediate level, but at school I’m still a beginner.”
S8: “Yes, very interesting, they try to trick us after each lesson, we get mixed up!”

Scenario 9

Juheina: “We will be working with Mavis Beacon.”
Students: (in unison) “yyyyes!”

Scenario 10

S10: “Miss, it’s hard when you type with ten fingers.”
Diana: “You should try. You should not compete with your friend. You should take your time while doing your work.”
Scenario 11

Diana: “I think you should edit your work.”
S32: “I’m bad at computers.”

Scenario 12

Diana: “Is the activity interesting?”
S20: “Yes.”
Diana: “Why?”
S20: “Because I like noise! I want to know the difference between noise and noise pollution?”
Diana: “Is doing the activity on the computer that interesting? Can’t you just write the information on your English copybook?”
S20: “Because we have more stuff there that we can use. On paper, we need to use a ruler, but on the computer, it’s neater.”
S21: “Because I like looking up a definition a lot.. and writing sentences. I like to do it on the computer because it’s neater.”

Scenario 13

Diana: “Is it a nice task?”
S27: “Yeah!”
Diana: “Why do you think so?”
S27: “It’s creative.”
Diana: “Do you find the activity nice?”
S20: “Yes.”
Diana: “Why?”
S20: “Because we can express ourselves. It’s not just writing, it’s illustrating too.”

Scenario 14

Diana: “Do you find the activity interesting?”
S1: “A lot, because I can type, I could show what I have written and how I think about what I have written.”
Diana: “Can’t you show them you work on paper?”
S1: “Yes I can, but I can’t give my copybook to everybody. It’s nicer, it corrects my spelling mistakes, it’s neater and you can do many things with the computer.”
Diana: “S12, do you find the activity interesting?”
S12: “Yes.. because like when I’m writing, I’m learning from my mistakes, for example if I have a mistake I go to it and click on it.. if they told me I have a mistake, I click on the right one. And it’s interesting.”
Diana: “Can’t you show what you wrote to people without writing it on the computer?”
S12: “Yes. But because first of all if it’s published, it’s gonna be really published.”
Diana: “What do you mean by ‘published’?”
S12: “Like if all is correct and no mistakes.”
Diana: “S17, do you find the activity interesting?”
S17: “Yes.”
Diana: “Why?”
S17: “Because I love typing, I like typing and using the computer.”
Diana: “S4, do you find the activity interesting?”
S4: “It was interesting for me, but sometimes I get mixed up if I type and some things I didn’t know how to do it, but I know where to go but I don’t know how to fix it.”
Diana: “Like what?”
S4: “Like when I have spacing, I know where to go to ‘Format’, but I didn’t know how to fix it.”
Diana: “Did the teacher teach you how to fix it or not?”
S4: “No, she taught us orally, but from before, but I forgot a little how to do it. I know where to go, but I didn’t know how to do it.”
Diana: “S6, do you find the activity interesting?”
S6: “Yes, not writing with your hand, just pressing things and it’s even nicer because it’s neater.”
Diana: “Isn’t it neat if you write on your copybook?”
S6: “Yes, it’s neat, but no that neat.”

**Scenario 15**

S10: “Miss Rana, I can’t choose the picture, they are very nice. Which one should I choose?”
Juheina: “Don’t waste a lot of time choosing the picture.”
Appendix B

Effect of Computer-Assisted Language Learning on Motivating Students to Write

Student’s Questionnaire

Please take few minutes to complete the following questionnaire by sharing your honest opinions.

Direction: Fill in the space provided below with information about who you are.

I am _________ years old.

I am a _________ (male/female).

My country of birth is _________.

In the country where I was born people speak the following languages: 1. _________
2. _________
3. _________
Direction: Circle the smiley face that best describes your attitude toward the use of computers as a tool for writing.

1) I often use the computer at home.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

2) I often access the Internet at home.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

3) I often use the computer at school.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

4) I often access the Internet at school.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

5) Writing using the computer is an exciting and enjoyable activity.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

6) Using the computer for writing enables me to make more changes in my writings.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

7) Using the computer encourages me to write more.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

8) Using the computer helps me to organize my ideas.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

9) Using the Internet helps me in searching for ideas to enrich my writings.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

10) I feel happy when I see my written work printed out.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
11) I feel happy when people read my computerized writings posted on bulletin boards.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

12) Attending computer lab sessions helps me to improve my writing skills.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

13) I feel frustrated when I use the computer to write.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

14) I am more comfortable brainstorming my ideas straight on computers than on paper.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

15) I do not have to worry about the spelling errors when I write using the computer.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

16) I do not have to worry about the neatness of my writing when I use the computer.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

17) I can type faster when I use the computer.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

18) The computer helps me in designing and publishing creative products.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

19) Working on the computer motivates me to write.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

20) I am more comfortable typing a written assignment because I know how to use the keyboarding skills (typing).

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree

21) I know how to use the Internet to search for ideas to enrich my writings.

Strongly Disagree  Disagree  Neutral  Agree  Strongly Agree
Appendix C

Students’ Focus Group Interview Questions

1) If you were given the chance to choose between using the computer to write or using paper and pencil, what would you choose? Why?

2) How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why?

3) Has the use of the computer improved your writing skills? If yes, how? If no, why?

4) What is the best/worst thing about using the computer to complete a written assignment?

5) If you were asked to choose the task/piece of work you have written using the computer, which one would you choose? What makes you feel that the written assignment you have selected is better than others you have written?

6) Do you use the Internet when you are asked to complete a written assignment? Give specific examples.

7) Who helps you when you have difficulties with writing using the computer?

8) Do you have any other comments about this subject?
Appendix D

Teachers' Interview Questions

1) What do you teach at CLS and how long have you been teaching?

2) On average, how many times per week are the students allowed to practice writing on the computer?

3) What kind of computer applications do your students use for writing?

4) What kind of writing activities do you engage your students in when using the computer?

5) What are the reasons or motivational factors that encourage you to use computer technology when assigning written tasks for your students?

6) How effective is computer technology in helping your students improve their writing skills? Justify your answer.

7) What do you think the role that the Internet plays in helping your students become better writers?

8) Can you describe you students' attitudes/reactions when they write using the computer? Provide specific examples.

9) How has the use of computers as a writing tool helped in developing your student-student and student-teacher interpersonal relationships?

10) What type of difficulties have you experienced when you integrated the use of computer technology and writing for your students?

11) How would you describe your role when you plan for your students to use the computer as a writing tool?

12) How can you tell whether or not the use of computers is helping your students develop their writing competency in terms of quality and quantity?

13) How did/do you continue to develop your computer skills?

14) Is there any comment you would like to add?
Appendix E

Date: Wednesday, 6th February, 2008

Parent Informed Consent Form

Thesis Title: The Effect of Computer-Assisted Language Learning (CALL) on Motivating Students to Write

Thesis Researcher: Diana Fidaoui
03-576266, diana.fidaoui@lau.edu.lb

Dear Parent,

I am a graduate student at the Lebanese American University (LAU), Beirut. Your child is invited to participate in my research study that will be conducted as part of my master’s program at LAU. The study will cover a period of 3 months (February, March, April) during which I will observe your child in the computer lab. I will look for obvious signs of his/her motivational level as s/he uses the computer to accomplish a writing task.

The study has a dual purpose: first, to explore the effectiveness of using computers in motivating fourth grade English language students to develop better writing skills and second, to explore the perceptions of English language teachers and students regarding the use of computers at school.

Your son or daughter will be asked to fill out a simple questionnaire that asks about his/her attitude(s) toward using the computer as a tool for writing. Your child and other participants in the study will be interviewed by me in small groups to discuss specific questions concerning the use of computers as a tool for writing. The interview will reveal your child’s personal experiences with the use of computers as a tool for writing. Throughout the interview, I will listen to your child and give him/her the opportunity to clarify his/her understanding. Thus, instances of misinterpretations will be minimized. The interview and some of the observation sessions will be audio-recorded for the purpose of helping me gather authentic data. During the process, I will also collect copies of your child’s computerized writings to support the interview-based data. Written samples will be analyzed to determine if they support or negate oral responses. All the samples collected will have been completed during the school day. The results of the questionnaire, interviews, and document analysis will be maintained and shared only with me and my thesis advisors at the Lebanese American University (LAU).

Please rest assured that the interviews, the questionnaires and the writing samples will be used for the sole purpose of this study. The written responses will be anonymous so that no one will be able to determine who responded to the questions.

You child’s participation in this study is voluntary and will in no way affect his/her academic grades. Withdrawal from this study at any time will be honored.
If you would like to ask any questions about this research, please do not hesitate to contact me.

Please complete the following information and return to your child’s teacher by Monday, 11th February, 2008. Please keep the upper portion of this form for your information. Thank you for your support and cooperation.

Sincerely,

Diana Z. Fidaoui

[Signature] [Date]

I have read and understood the purpose of this research.

a. I agree to include my child [child’s name] in this study.

b. I do not wish to include my child [child’s name] in this study.

Class: 4A 4B 4C

[Parent’s Printed Name] [Parent’s Signature] [Date]
Appendix F

Date: Wednesday, 6th February, 2008

Student Assent Form

1. I understand that this study looks at whether or not using the computer for writing is helping me to be a better writer. ☐ ☐
   □ Yes □ No

2. I know that participating in this study will not affect my schoolwork. ☐ ☐
   □ Yes □ No

3. I know that the researcher will observe me in various settings as I use the computer to accomplish my writing tasks. ☐ ☐
   □ Yes □ No

4. I understand that I will be asked to complete a paper and pencil questionnaire that asks about my attitude toward using the computer. ☐ ☐
   □ Yes □ No

5. I also understand that I will be interviewed to discuss specific questions concerning my use of computers. I understand that the group discussions and some of the observation sessions will be audio-recorded for the purpose of helping the researcher gather information. I know that the researcher will collect samples of my writing tasks that I have completed on the computer. ☐ ☐
   □ Yes □ No

6. I understand that if I decide to withdraw from this study, I must notify the researcher ahead of time. ☐ ☐
   □ Yes □ No

7. Participating in this study is my choice. ☐ ☐
   □ Yes □ No

Please complete the following form and return to your advisor by Monday, 11th February, 2008. Please keep the upper portion of this form for your information. Thank you for your help.

..............................................................

c. I accept to be in this study.

d. I do not want to be in this study.

Date: ________________

Name: ________________        Signature: ________________

Class: 4A 4B 4C
### Appendix G

**Document Analysis Rubrics**

#### Rubric 1

**Task 1: Writing a caption using Print Artist**

<table>
<thead>
<tr>
<th>Skills</th>
<th>The students is able to:</th>
<th>Mastered (Exc. –VG)</th>
<th>Satisfactory (OK)</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT</td>
<td>Write a title</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a picture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work on the format (Font, center, shape of letters, change colors etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resize the objects/pictures to see all the parts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write the name, class, section, and date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Print the work using the color printer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Write a caption with no spelling and punctuation mistakes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Caption is original and creative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Present neat and clear work</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Rubric 2

### Task 2: Making an invitation card using Print Artist

<table>
<thead>
<tr>
<th>Skills</th>
<th>The students is able to:</th>
<th>Mastered (Exc. –VG)</th>
<th>Satisfactory (OK)</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT</td>
<td>Select a cover page</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write a title on the cover page</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work on the format (Font, center, shape of letters, change colors etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resize the objects/pictures to see all the parts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write the date, time, and place of the event</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Print the work using the color printer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Write an invitation sentence with no spelling and punctuation mistakes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consider the audience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Present neat and clear work</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rubric 3

Task 3: Gathering information about Sound using Encarta Kids and typing the information in Microsoft Word

<table>
<thead>
<tr>
<th>Skills</th>
<th>The students is able to:</th>
<th>Mastered (Exc. – VG)</th>
<th>Satisfactory (OK)</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT</td>
<td>Write a title and a subtitle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Search for information using Encarta Kids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select relevant information, then copy and paste them in MS Word</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work on the format (Font, center, shape of letters, change colors etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resize the text to see all its parts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write his/her name and date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Print the work using the black and white printer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paraphrase the information correctly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Type the information with no spelling and punctuation mistakes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Present neat and clear work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Write the source of information at the end of the task</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rubric 4

Task 4: Typing a paragraph 'The Red Writing Hood' using Microsoft Word

<table>
<thead>
<tr>
<th>Skills</th>
<th>The students is able to:</th>
<th>Mastered (Exc. – VG)</th>
<th>Satisfactory (OK)</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT</td>
<td>Write a title</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Work on the format (Font, center, shape of letters, change colors etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Resize the text to see all its parts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Write his/her name, class, section, and date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Print the work using the black and white printer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Use the given vocabulary words in composing a paragraph</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Type a paragraph with no spelling, punctuation, capitalization, and grammar mistakes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Write ideas that are original and creative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Present neat and clear work</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix H

Date: Friday, February 29th, 2008 and Monday, March 3rd, 2008

Interviewer: Diana Fidaoui (D)
Interviewees: IVA students (Group 1)

D: Good morning students, my first question to you is the following: **If you were given the chance to choose between using the computer to write or using paper and pencil, what would you choose and why?**

S1: If I were to choose one, well you can write with both of them, but you should choose the one that’s easier for you. Uh, I think if you write with pencil, for me as my opinion it’s easier but if you want to give it to someone for them to show it to everyone, I think you should write on the computer.

D: Great! Yes. What else?

S2: Uh, I think it’s better to choose the computer because you don’t need to think about your mistakes and the neatness and everything. It just does it for you.

D: Ok.

S3: I think that we could do it on both, but I find it easier to do it on the computer because on the computer it will be easier for you to write and you could save them. So maybe if you like have a brother, it will tear it, but in the computer it’ll be saved.

S4: I think that it’s easier to use the computer because the computer is a .. it’s a very smart technology and it helps you.. um to get information and it helps you with your typing. So I would choose the computer since it’s easier to write.

S5: I would choose the.. I would choose the computer but.. everyone has his own choice because some people are slow at typing when some people likes uh.. writing with pencil. But for me it’s easier to use the computer because it’s neater and you don’t have to worry about neatness and the computer could correct your mistakes.

S6: I would choose the.. the… the pencil than writing on paper because if you write on the computer you can’t choose… you.. because maybe if you wanna choose a decoration, you can’t choose your own maybe because they don’t have it on the computer. So if you wanna do it on a paper, you can draw it. And you can write whatever you want and it’s a.. I choose paper and pencil, it’s better.

D: S7, you can disagree with your friend. Okay? What do you wanna tell me?

S7: Uh.. I think it’s better to write with the computer because like if you’re writing a novel and uh.. and uh.. there’s like somebody is giving a harder note, you could choose even a handwriting. And also you could… it’s a very smart technology and all time they used to only write with paper and pencil, now they publish it with the computer.

D: Ok. Anything else?

S8: Everybody has his own choice like everybody said and I prefer paper and pencil when I’m writing because I’m faster, but when I want to decorate a nice decoration, I use the computer because the computer can make anything with the writing and even with the pictures.

D: It makes your written assignment more attractive you mean?

S8: Yeah. So that.. if I write on paper I can’t make it that good sometimes, so when I
make it on the computer I can make it good. So.. but I prefer on paper when I’m writing but when I’m making other stuff other than writing, I’d use the computer.
D: Alright, anything else?
S2: Yeah. In the computer you could erase by backspace but in the paper you’ll erase with the tip of the pencil or the eraser and it will get dirty.
S9: For my opinion, I chose paper and pencil but when I want to publish it I would like to write it on the computer because I would not have to write… I would not have to erase and I would be able to choose whatever handwriting I would like.
D: Ok.
S7: I have something to say.
D: Go ahead.
S7: I disagree with S6 because um.. you could also get from the Internet and then copy paste it on your document and also you could print it out and then draw.
D: Yeah. You’re right S7.
S5: Can I say something?
D: Yes. Go ahead.
S5: Um.. yes. I need also to disagree with S6 because it’s easier to write on the computer and you can do whatever you want on the computer. You can, you can, you can, you can copy paste, you can find information, you can find pictures, print everything, all information you need on the computer.
D: Yeah. I agree with you as well.
S4: I also disagree with S6 because um.. why did we make computers? We have to use computers not only use paper and pencil. Because the computer is like paper and pencil but.. but with mechanics and electricity.
S2: Sometimes when you use the paper and pencil, when you are writing, sometimes when you do straight lines, the ruler will slip and you’ll do wrong and when you’re writing, sometimes the letters go down the line.
D: Ok. Can I move to question number 2.
Students (in unison): Yes.
D: How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why would you feel so?
S1: Well, it’s not.. it will not make me very very sad like it’s the end of the world, but I’ll be like sad that I cannot use the computer anymore to publish my stuff and give to other people what I have written and… I’ll feel like that because the other people will not see my written work but instead of writing on the computer, you can write it on a piece of paper like your personal journal and then you can read it to someone. So there’s no difference.
S4: I would feel very upset because when I am using the computer for an assignment, I have fun because I don’t…. I learn how to type, I learn from my mistakes and how to type well.
D: Alright, anything else?
S3: I would feel very sad because the computers.. I like the computer so much and it’s one of the best things to do at my house. And it’s also because you could type.. you could see your mistakes and you could see what’s happe… you could type faster than writing.
S2: I’ll feel very sad because I.. I always use the computer to finish projects and I.. my
drawings are not very good on paper but better on computers because they have more stuff, they color the.. all the paper.. all black fast, you just click it once and you could do some spots, big spots and..

D: Do you know how to draw on the computer? What do you use? Which program do you use?

S2: Sometimes I use the Internet and sometimes I use art...

D: Fine. Anything else?

S7: I wouldn’t feel that bad because then.. because the computer is not good for you if you talk.. if you play on it very much. But its’ also good for you and if it don’t let you do an assignment, it’s not fair. Because what if you want to do a project on the computer, then you can’t do it. Then it’s not fair if you need a project.

S4: I would feel also very sad because the computer is my whole life for me because if there’s no computer, how are we gonna make our work neat and if we wanna play some games and have some fun? Sometimes there’s games on the computer that we could play or in our research, if we want to research examples about an animal, why should we like instead… it’s faster the computer for me.

D: Ok.

S8: If I wasn’t allowed to use the computer, I wouldn’t be that sad but if we had to do stuff, I will feel like painful because I don’t know if it’s gonna be good or not. And I know many stuff about computer and I’m learning time by time, but if I don’t.. if I don’t have the computer, I would feel sad because I’m learning about the computer and I’m not allowed to use the computer. It’s not fair. It’s not fair because if I’m learning about computer and I’m not allowed to use it, it would be not fair.

S6: I would feel sad but not very sad because.. because the computer is very helpful.. it helps you get information without going and checking in books. So it’s better to have a computer and find, and find the Internet and then if you wanna publish something, you can publish it on the computer when you write something to give it to somebody. It’s neat.

D: Alright.

S6: And if you write on the computer, it’s better because you know your mistakes and if you write on the paper you don’t know because sometimes you do mistakes on the paper.

D: Yeah, you’re right.

S9: I would feel sad, but not really sad because we could search in books for information and it’s not the end of the world.

D: Maybe. That’s her opinion. Lets move to question number 3. Has the use of the computer improved your writing skills? I mean did the use of the computer helped you write better? If yes, how? If no, I mean if you think that the computer didn’t help you write better, you should tell me why.

S1: Um.. before I started typing on the computer, I used to write stories and stuff that I like and I don’t think the computer has improved my writing skills or my writing, but when you write on the computer wrong things and it shows your, it shows you a red line under it, so you understand your mistakes, it tells you what you mistake is uh.. so it might help but it didn’t help me. I used to write, write more, read more and like.. in school I learn more not in computers.
D: Alright, yes.
S9: Yes it helped me improve my writing skills, when I see that line under the word, I learn that I have a mistake by pressing the right click.
S7: I think it helped me improve because before I used to type on the computer, I used to.. I never wrote a long story like two pages. I only wrote half a paragraph, now since I started writing, I started writing on the computers, I write like five pages and I really improved because if I put two, two spaces so it puts a green line under it so I have to press right click and it helps me understand where my mistake is, and if I spelled it wrong, it puts a red line under it.
S4: For me I.. it improved my writing skills because like the others said if there’s a red line, it means there’s a mistake but instead of pressing right click, I try to... I try to correct my mistakes, so if it’s still wrong I just like give up and press like click, and also it improves my writing skills because uh.. because we’re learning new things in computers and new buttons and things.
S5: I think, I think I improved with my writing because miss Juheina taught us how to use the computer and everything and she helps us with the typing, she helps us with the typing and last Tuesday she gave us a typing skill so we can improve in our typing. And I think I improved in my typing a lot.
D: Great!
S5: I think uh.. I disagree with Lina because when you make a mistakes, it gives you a red line but when you press on the red line and you see what’s wrong, you see your mistake and you learn it. So the computer really teaches me new stuff and it also improves my writing.
S2: I think the computer helped me in my writing because in third and second and first grade, I used to write a bit, but when I use the computer I have more ideas. It helps me picks my mistakes, learn my mistakes and be neater.
S6: I think using the computer helps me learn more things like the buttons and how to research in the Internet and where to write the things, in Microsoft or I don’t know. So I think the computer is better than paper and pencil.
S8: When I make mistakes or I’m writing on the computer, the handwriting is different and sometimes better than mine, so I write everyday, everyday I write on the computer, sometimes my handwriting change and how I.. how I write my paragraphs and everything and where I put my pictures and I learned.. I also learned like when I make a mistake, I check how the word is really spelled and write it down and I also know where to put the... how much space to put for every.. I also know how to put.. how much space for every single word and every single paragraph.
D: Alright. Number 4. **What is the best/worst thing about using the computer to complete a written assignment?** I need your honest opinions.
S3: The best thing about using the computer to complete an assignment is that you get to make a lot of accessories like you could make the writing like scary or happy. You could make smiling faces. You could make a lot of emotions. But the worst thing about it is that you have to save the work.
D: Ok (laughs). How do you make your work more i.e. you include more emotions in it?
S3: I can make it by two ways.. either by either writing an emotion, either by the way the typing is or by making like uh.. making like smiley faces and drawings.
D: How do you write an emotion?
S3: No, I mean I draw an emotion, the happy face.
D: Ah! You mean the emoticon. Ok fine.
S3: Yeah!
D: Anybody else?
S4: The best thing about the computer is that you could.. you could type and it's fun to
type for me.. but the worst thing is that I like making my own work not a.. by.. printed
out by the computer. I like it to be from my hand, from my.. from my.. from my paper
and everything.
D: Ok.
S8: The best thing about to write assignments is we.. we.. we don't get mistake at all and
everything will be correct, everything will be good and even the decoration. The
worst thing about writing assignments, it's something tiring for our fingers when we
type a lot, fast and a lot.
S1: I think the best thing in writing in computers is that you get to write it and show to
people what you have written. You.. and the worst thing is that um... well I don't
have the worst thing because I think that it's really fun to write it. And like whatever
you do, you're writing what you have written and what you think that is nice and you
want to show to other people.
D: Ok. S7.
S7: I think the best thing when you type on the computer is that like what S3 said
and then we also you could save your work and then if your paper gets lost, you could
print it out again and also you could get from the Internet pictures on what you're
talking about, like if you're talking about uh.. scary story, you could get like ghosts
and witches and monsters.
D: And what about the worst thing?
S7: I don't have a worst thing. Everything is fine.
D: Alright S7. Anything else?
S5: The best thing about the computer is that it's the best technology I've ever used in my
life because it has a lot of information and it has a lot of activities on the computer to
do. And there's nothing I don't like about the computer because it's a smart machine.
S6: I like the computer because there's designs and you can do with designs and the
worst thing that I hate is saving.
D: Question number 5. If you were asked to choose the task or piece of work you have
written using the computer, which one would you choose? What makes you feel
that the written assignment you have selected is better than others you have
written?
S2: I would choose to.. the one that is the longest and the one that people understand
because if I choose another one, people won't understand it and I will get a bad grade.
So I will choose the best one.
D: Which one would you choose? What's the title of your work?
S2: I have a title, it was a poem, it's called "Boo."
D: Ok. I will have a look at it. I want you to print out your favorite piece of work and
show it to me, all of you.
S1: My favorite assignment would be "My Hidden World" because I think I spent more
time on it and I think it's the best one I wrote because I wrote something very
beautiful in it.
D: Alright.
S8: I have many stuff that I wrote nice, I have from last year and from this year. From last year, I had "Vickings Attacks" and... I forgot what the other one but I think it's about "Space" stuff like that and I don't think I can print it out or something, and I choose "The Hidden World" also because they're long and people can understand them. It's nice and sometimes funny and uh..
D: Go ahead S3.
S3: Yes. My favorite, my favorite one is... I made it in February, it's called "My Friends". I like it so much because it has so much details and it has so much uh... feelings and stuff.
S7: Um.. my chosen assignment would be uh.. my best one, it has two types. "It God Horizon" it shows my gene one I had when I was two, yeah.. and I chose it because it is long, people understand it, it is creative and uh.. I used a lot of my creativity.
D: Alright. What about you Mr.?
S4: I would choose uh.. my.. I would choose my.. my poem about "The Digestive System" which I did the last planner because.. because it is very rhymy.
S6: I would choose my poem "Purple" because it makes sense and it's nice and people will understand it because I wrote it in a.. in a.. how do you say? In a supporting way. So I choose my poem.
S5: I would choose my paragraph that I wrote of a "Night Alone". It's a very nice story.
It's a two story that happened to me and my cousin and it were very nice.
D: Did you write it on the computer?
S5: I did write it on the computer.
D: Did you enjoy writing it on the computer?
S5: I did. I enjoyed writing it on the computer because I.. after I wrote it I put scary pictures and handwriting that's scary and blood...
D: Can I move to question number 6.
Students (in unison): Yes.
D: Do you use the Internet when you are asked to complete a written assignment? How do you use it? Provide me with some examples.
S1: Um.. I would complete my assignment, but we could go to the Internet for researching or for like um.. or for.. we have many things we can find out in the Internet about history, about our world, about everything. So, so the Internet is very good to access it in a very good way. So we can research, we can find out about history and many other things.
D: Are you trained to use the Internet at school? I mean does somebody help you?
Students (in unison): Yeah.
S8: I can use it by myself, I know how.
S6: I use the Internet to get information and to put extra things..
D: Extra things such as what?
S6: Extra things such as.. about animals, about history, about... so we get information and put in in the written assignment and we get more information.
D: Do you put the information as they are or you try to paraphrase them.
S6: I paraphrase them.
D: Do you put the references at the end of the assignment?
S6: Yeah.
D: Do you know how to write a reference?
S6: Yeah.
D: Who teaches you how to write a reference?
S6: My sister trains me at home.
D: And at school?
S6: The teacher. The computer teacher.
S4: I would usually research on animals.
D: Does the Internet help you complete a written assignment?
S4: Sometimes. Sometimes I... I... actually I don’t.
D: Do you prefer using books?
S4: No.. I would like to use the Internet more because they have more information than books. Because then I have to go to get more books so I could get more information but the Internet is just one thing, so it’s easier.
D: Anything else?
S3: I would use the Internet most of the time because the Internet has a lost of advanced things to do like you could get pictures of what you’re looking for instead and buy a painting book in a shop. You could also get information and you could like make a summary for it, but I think it’s very bad to copy paste it because then you’ll be just cheating, it won’t be your work.
D: Ok. And do you usually copy paste information from the Internet?
S3: No I usually summarize it.
D: And do you put the author’s name and the end? Or the references?
S3: The references yes, the author no.
D: How do you put the reference at the end without putting the author’s name?
S3 and students: (laugh)
S3: I mean what year and something like that.
D: Ok, fine.
S8: I don’t use the Internet a lot but my mom is teaching me but I’m learning from time to time whenever I’m going to Internet and accessing it. Whenever I need to make an assignment in the Internet and somebody told me to make an assignment in the Internet, I would go there and get information and stuff. But if they didn’t allow me to go to the Internet, I wouldn’t have gone to the Internet and made other stuff because I’m not used to Internet a lot because I don’t have Internet in my computer.
D: Do you have a computer at home?
S8: Yeah I have, but I don’t have Internet. My father has Internet.
D: Are you allowed to use your father’s computer?
S8: Yeah, I’m, allowed but when I’m getting Internet, I will be... I will start to use it a lot.
D: Do you prefer using books and the library?
S8: Now I prefer books but when I get Internet, I prefer the Internet.
S7: I use the Internet sometimes so I could finish my written assignment because it... like... sometimes I go on sites and they could help and I like summarize what they say. Sometimes like I copy paste it a little bit and then I erase it so I don’t have to go to the websites back and forth back and forth and then I delete it. So then I only have the summarize.
D: Do you always paraphrase the information?
S7: Yeah, no I paraphrase.
D: Do you write the references at the end?
S7: Yes.
D: What does a reference include?
S7: I should include website, the copyright, the year it was made and the author sometimes.
D: And who teaches you how to write a reference?
S7: My sister because she knows a lot about the computer.
D: And at school? Nobody?
S7: No nobody.
S8: And it's better to get stuff from the Internet because sometimes in books they only have one. They say one thing about the thing you want to find but when you go to the Internet and you type the thing that you want to find, they put all the information, not just one thing and in the Internet you have to pay, but when you're getting books you have to pay and maybe you might have like ten books or... so you need to pay more than how much you pay for the Internet.
D: Anything else?
S5: I would choose the computer. I mean the Internet because the Internet has more information than books because books just have small details. They don't. They're not specific, they're just giving hints.
S2: Sometimes I use the book and sometimes I use the Internet. Sometimes I don't use the Internet because once when I was using the Internet, virus came to my computer and sometimes people could spy on you with the Internet.
D: Shall I move to question number 7?
Students (in unison): Yes.
D: Who helps your when you have difficulties with writing using the computer?
S8: Nobody helps me.
S7: Me, I know how because I've been trained before. by my sister. So now I know a lot about how you put your finger, how you put your fingers, how you use your ten fingers on the computer.
D: And what about the program you're using like Mavis Beacon Teaches Typing, did it help you improve your writing skills?
S7: A little bit, yes.
S3: I think that I usually don't need a help like S7, like my dad he's very good in computers but he always come 12 o'clock midnight so my mom doesn't know a lot so I try to figure out myself and usually I get it right.
S6: My sister helps me when I do a mistake. When I write a summary on the Internet. on the computer, she reads it and corrects the mistakes or... and at school the computer teacher or my partner next to me usually help me.
D: How does you partner help you?
S6: If he knows the thing and I don't know it, he tells me how to. how to go in.
D: Does he come and do it for you?
S6: No he teaches me where to go in word..
D: You mean orally?
S6: Yeah.
S4: Usually I don't have any problems because before I learned how to use the computer,
my father and sister taught me everything and every single problem if there is.

D: And at school? Don’t you ask for help?

S4: Sometimes, if it’s an easy problem, I could just use the computer. But if it’s a difficult problem, I have to ask the teacher.

D: Alright.

S2: When I have a problem at school, I ask the computer teacher. And sometimes when,
If we’re punished, we can’t talk or something, I’ll can ask my partner quietly.

S1: Usually at home uh.. well the computer, it fixes you mistakes but not all your mistakes. So that’s when you have to edit, so you have to read again and see your mistake. But if you can’t solve them, you can’t find out what they are, you can ask your mom or dad and at school you can ask you teacher or like they said you partner. Or you can just find it out yourself.

S5: When I have.. when there’s a virus on the computer or anything, I ask my sister because my sister is very good at the computer and when I’m at school and there’s a problem, I do what my sister does.

S8: I’ve been trained at home with my games because I have games that teach me how to type and at school the teacher teaches me how to put my fingers and there’s something we’re learning.. typed thing.. we’re learning how to make it.. and I usually help my partner S6 at working.

D: Bravo. Do you have any other comments about this subject?

S3: I find the computer a very interesting tool and I would like.. like everybody in the world to have one.

D: Don’t you have one at home?

S3: Yes.

D: So why you’d like to have another one?

S3: Because everybody could see how it’s nice it is, what information it could give and stuff like that.

S7: I think the subject is nice because it helps us, like it express.. we express how we feel about the computer like that.. and I want everybody to know that sometimes on the Internet if you pay a lot.. like sometimes there’s sites on the Internet that are bad and you can get kidnapped from that. So try to go on sites that are safe.

D: Bravo.

S4: I want to exactly say what S3 said everyone in the world should have a computer and plus.. this program thing we’re doing, it will teach us more about how to use the computer and if there’s no computer I don’t know how will I live.

D: Me too.

S6: I see it’s good that we have a computer because like we said, we need it for research, we need it for typing, for neatness and like S7 said it’s safe to go on sites that are safe sites.

S2: I think every single one should have a computer like S4 and S3 said because sometimes people in shops buy from the computer things and some people don’t.. it means they play in the computer, they chat in the computer with somebody in another country. They should have a computer and sometimes people could kidnap you by the Internet.

D: Oh my God!

S8: I agree with this.. go to sites that are not dangerous because some people are bad and
they use the Internet on computer to kidnap people and stuff like that. And I don’t know if that will happen if we didn’t have computers because now it’s the computer’s age.

D: Bravo.

S5: My life wouldn’t be the same if there weren’t no computers because computers, they help you communicate with other people from other countries like sending emails and having fun on games. So I think if there’s no computers in my life, I would be miserable.

D: Ok.

S4: I have a question.

D: Ok. Go ahead.

S4: Why should you tape-record our voices?

D: I need to record your voices because later on I need to listen to the tape again and write what you said on paper and see how you agreed or disagreed with each other. I need to listen to the tape in order to write down your opinions since I’m not that fast in listening to your opinions and writing what you believe at the same time. So I prefer to use the audio-recorder since it is a tool that facilitates the process of taking notes. So the audio-recorder is a technology that helps me record you voices in a fast way than paper and pencil. so technology is helpful.

S8: Did I do good?

D: You did a great job. Bravo. Now you are dismissed. You may go to class.
Date: Monday, March 3rd, 2008

Interviewer: Diana Fidaoui (D)
Interviewees: IVA students (Group 2)

D: Good morning students, my first question to you is the following: If you were given the chance to choose between using the computer to write or using paper and pencil, what would you choose and why?

S19: I would choose to start with paper and pencil so instead of.. to just get your ideas first of paper and then you can do like publishing on the computer.
S10: I would choose to do computer first because we do it faster.
S11: I would choose to do computer because on the computer because in the computer, it will correct the spelling.
S12: We should start on a piece of paper than on the computer because we put our ideas on the paper and then we can.. publish on the computer.
S13: I would choose both because uh.. first I would choose on the paper then I’ll choose on.. then I’ll pick computer because on paper I could.. all my ideas.. and then I could publish it and see if there’s any spelling mistakes to correct.
S14: I would choose paper first because we can brainstorm first and then we can type it on the computer.
S15: I think that we should use computers because they can correct our spelling mistakes and we don’t have to worry about our neatness.
S16: I think I need to choose computers because you don’t have to worry if it’s neat.. it’s practical.
S17: I think I’d list my ideas on paper then write it on the computer.

D: Question number 2. How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why would you feel so?

S15: I would feel sad because I like to use the computer to write an assignment.
D: Why do you like using the computer to write an assignment?
S15: Because it’s easier.
S14: I would feel angry because most of the information you find will come from the computer and you can write it down on the computer faster and don’t worry about anything that’s going to be wrong in it.
D: How do you get all the information?
S14: Like going on the Internet.
S13: I would feel furious because.. computer.. it gives us more information. It lets us become organized and helps us spread our ideas.
S10: I would feel sad because we can see knowledge from the computer like we could go to the Internet and we write faster on the computer and it shows us our mistakes.
S17: I would feel sad and angry because the computer.. it helps us get more information than books. It’s easier.
S16: I would feel sad because if I tried typing on the computer it will tell me the mistake that I did and.. that’s it.
S11: I would feel bad if somebody tells me that I can’t use the computer to finish an assignment because in the computer we can get more ideas from the Internet.
S12: I would feel sad because the computer will help us in knowledge, learn new things and type and everything.
D: From where can you get the new things?
S12: From the Internet.
S17: I would feel angry because if I started that assignment, I would want to finish it and it’s much easier to type on the computer because we don’t have to worry about the mistakes.
S14: I would feel angry because when we’re typing on the computer, we’re spreading out our ideas, because when the corrections, sometimes they make you write a different word and it would be longer and..
D: It’s not suitable you mean?
S14: Yeah.
D: Question number 3. Has the use of the computer improved your writing skills? I mean did the use of the computer helped you write better? If yes, how? If no, I mean if you think that the computer didn’t help you write better, you should tell me why.
S11: Yes, yes... the use of the computer did improve my writing skills because when I have a mistake, it corrects it by itself.
S14: The computer using it for writing improved my writing skills because like when I finish and look at my writing, I keep thinking that I want to write more.
S10: The computer improved my writing skills to be faster in writing.
S13: Yes the computer improves my writing skills because I learn from my mistakes and I learn how to type faster.
S18: The computer improves my writing skills by.. by going on Mavis Beacon and helping me to type faster and my spelling mistakes.
D: So did it improve your writing skills?
S18: Yeah.
S15: Yes I think the computer improved my writing skills because it helps me learn what my mistakes in writing is.
S16: Yes I think the computer improved my writing skills because it shows that I did the mistake in this word and I will correct it and I will learn my mistake.
S10: I also forgot to say that it also corrects our mistakes.
D: Ok.
S17: The computer will improve my writing skills because it would be neater and it would have less mistakes.
S12: Yes it will improve my writing skills because I will learn new words from the Internet and I can type them down.
D: Question number 4. What is the best/worst thing about using the computer to complete a written assignment? I need your honest opinions.
S14: The best thing is that.. when we go to the Internet. Because like I did a presentation and I gathered a lot of information about ancient. ancient history and yeah.. and the worst thing is that when you.. when you.. when there’s something wrong with the computer, it doesn’t correct your mistakes, and then you go to present it and you find those mistakes instead of things you write uh..
S13: My best thing about doing a computer assignment is I get more knowledge and more information, and learn more things, like once I made a research about dinosaurs in the prehistoric time and the worst thing is that I do about.. when I’m
doing a computer assignment is that it takes a lot of time using the Internet and finding more information, like it takes me more than one hour.

D: Don't you know how to use the Internet?
Students (in unison): No, yes, no.
S14: We did always here at school, like in the computer lab.
D: Do they teach how to use the Internet and look up for information?
S14: Yes.
S11: The best thing about using the computer is that it can correct the spelling and the worst thing is... when there's an error in the computer or the printer has a problem, so it can print out something wrong like spelling and it won't get the words... and miss out a word.
S17: The best thing of using the computer is... is that we could find a lot of information on it like we could find... twice.. twice the information we're gonna find on books, like on Google we could write whatever we want and it will give us information about it. The worst thing is that sometimes the viruses from the Internet.
D: Ok. What else?
S10: The best thing in the computer is that.. it corrects our mistakes and also we could also go to the Internet and the worst thing is that.. um.. we don't have any worst thing.
S18: The best thing is that we can go on whatever information you want to get and the worst thing is that sometimes we don't find what we want to get.
S15: The best thing is that it helps me..
S16: The best thing about the computer is that it gives so much information and it is so nice and it lets you to type more faster and the worst thing is that sometimes.. uh.. I don't have a worst thing.
S15: The bad thing about the computer is that sometimes my computer is not working and the best thing is that it has information and it helps me type things.
D: What do you mean by "the computer is not working?"
S15: It's uh..
S14: The best thing also is that it helps you gather more knowledge and it helps you feel that you want to write more when you're typing.
D: How does it help you gather more knowledge?
S14: By going on the Internet and do research.
S13: Where does the paper come from the computer? Like they cut down cheese and they put in the computer?
D: I'll address your question at the end of the interview. Ok?
S13: Ok.
D: Question number 5. If you were asked to choose the task or piece of work you have written using the computer, which one would you choose? What makes you feel that the written assignment you have selected is better than others you have written?
S14: The written assignment that I liked best and I think it was better than the other assignments I wrote was the assignment that I did research about "Ancient Russia and the Last Romanov".
S10: The best assignment is that when we were doing about "The Human Body", what is
our favorite part of our body yeah.. and it was the bestest one because we were studying a lot in it so, it was easy to do it.

S13: My best assignment was when I did a research about “Wildlife” because I love animals so much and they’re like.. they’re like a family to me.

S12: My best assignment was when I made a “Poem” because it’s my own creative uh.. I made it.

D: Did you use any information from the Internet to write your poem?
S12: Yes I learned new stuff so I made them in a poem.
D: Ah. Ok.

S11: My best written assignment on the computer was making a new “Poem” about “The Human Body”.
D: Why do you think this assignment is more important than others you’ve written?
S11: Because it was about the planner we were studying in class.

S17: My favorite assignment on the computer was when I wrote about “World War II”.
D: Why do you think it was your best assignment?
S17: Because it was very long and it was a story and it really had information.
D: How did you get all the information?
S17: From the computer at home.
D: From the Internet you mean?
S17: Yeah.

S15: I would choose my assignment that I wrote on the computer, it’s about “Hiccups”.
It’s better than the others because it taught me from where hiccups come and how.
D: Did you enjoy doing it on the computer?
S15: Yeah.

S11: Can I change the title of my favorite assignment.
D: Go ahead. What do you wanna say?
S11: The name of my favorite assignment is “Endangered Sharks” book because I had very much fun learning about animals.

S18: My best assignment is when I had to research about “The Human Body” and I wrote about it.

S16: My best assignment that I copy paste it was “The Stomach”. It’s my favorite assignment because I learned so many things about the stomach.
D: How did you get all your information about the stomach?
S16: Encarta.

S14: I thought it was the best assignment because I liked when I research about ancient history and about people that were like kings of Russia.

D: **Do you use the Internet when you are asked to complete a written assignment? How do you use it? Provide me with some examples.**

S11: Yes sometimes I use the Internet when I’m asked to write a written assignment and like sometimes I don’t know some ideas so I’d go to the Internet and summarize the ideas and get better ideas.

D: When you use the Internet S11, do you only copy and paste information?
S11: The words that I don’t understand, I write them in the way I understand them and the other words I know, I copy them.

S12: I use the Internet to complete my assignment by going.. go to get info on Internet and then paraphrase them on paper.
D: Do you write the references at the end of your assignment?
S12: No. Not that much.
S14: Yes because I like to gather some new ideas that I did not learn about and
paraphrase them in my own words to understand them and either present them or
give it to my teacher to correct.
S13: Yes I use the Internet for completing a written assignment so I could get more info
and make more research and so I could show and tell it around the class about the
new info I learned.
S15: I use the Internet to get information if I have an assignment so I can learn.
S18: I sometimes use the computer if the teacher tells me to write it on the computer, I’d
rather do it on the computer. If she doesn’t tell me anything, I just write it with a
pencil.
D: Ok. Anything else?
S16: I don’t use the Internet because I don’t have Internet at home.
D: And at school?
S16: At school, I don’t use it very much. I prefer to use Encarta. But my family will bring
Internet.
S10: I use... sometimes I use the Internet to complete the assignment when the teacher
tells us to do it in a piece of paper, I do it first in the Internet sometimes.
D: How do you do it on the Internet?
S10: I write it in the Internet.
Students (in unison): How.. you type it.
S10: I don’t know what it’s called to type it after.. something we type it after it.. after we
can have it.. no
D: And what about the Internet?
S14: Do you use it to gather ideas?
S10: No I don’t use it. I use a dictionary.
D: Do you use a dictionary or Encarta to gather ideas?
S10: No, a dictionary.
S17: Yes I use the Internet when I’m asked to complete an assignment by.. by looking..
by researching about the stuff I need to write.
D: Ok. That’s it? Who helps your when you have difficulties with writing using the
computer?
S14: At home, my dad can help me because he.. like everytime.. like the first time I got
my new computer, the man who fixes it came and my dad learned how to do it like
the man, so he knows a lot of.. and when he was in university he studied
technology. At school I can ask the teacher to help me.
D: The computer lab teacher or the homeroom teacher?
S14: Both of them because they both go to the lab.
S15: At home, my brothers or my dad helps me. At school, the computer teacher and the
class teacher.
D: Great! Go ahead.
S18: Sometimes when my dad, but when my dad is not home, my brother helps me. At
school, the lab teacher.
D: Only?
S16: My mother helps me at home and the lab teacher helps me in the lab class.
S13: Um... the person who helps me at home if I have a problem in the computer is my mom because my dad taught her everything about the laptop. And at school, my two teachers, miss Rana and miss Juheina. Juheina works in the computer lab down.
D: Ok.
S10: My mother helps me in the home for the computer and the computer teacher helps me in school.
D: Fine.
S17: Mom helps me at home, but sometimes in school um.. Miss Juheina helps me because here in school, we use.. because at home I don’t have Windows, I have another type of computer, so I’m not used to it.
D: What do you do if you do if you face a problem while working on the computer?
S17: If I face a problem I try to solve it myself because like.. I know the most technology in my house about computers and everything.
D: What’s the type of your computer?
S17: Apple, Mac.
D: Ok. Fine.
S11: At my home, my father helps and when I have a problem or something and when he’s busy or he’s not at home, then I try to solve the problem myself.
S12: Usually my brother helps me and my dad. When my brother and dad are not at home, I I try to face it by myself.
D: And do you succeed?
S12: Sometimes.
D: And at school?
S12: In school, the teacher helps me.
D: Only one teacher.
S12: No, sometimes the two.
D: Ok. Lets move to the last question. Do you have any other comments about this subject?
S14: I have this comment that we have to be really careful because like if we.. sometimes if we press one bottom wrong, uh.. it could change like the settings.. all the settings.
D: Ok. What else?
S12: Well, technically I have the same thing.
S17: Can I go because I don’t have any comment?
D: You can go S17.
S15: When we open the Internet, we have to be careful or when we’re chatting to do not be in danger.
S16: The computer is sensitive very much, we don’t need to.. we need to read them then click the correct answer.
S15: The computer is a very nice thing to use.
S16: The computer is the most smart tool.
**Date:** Monday, March 3rd, 2008

**Interviewer:** Diana Fidaouï (D)
**Interviewees:** IVB students

D: Good morning students, my first question to you is the following: *If you were given the chance to choose between using the computer to write or using paper and pencil, what would you choose and why?*

S21: I would choose the computer because it’s easier for me to type with ten hands.

S20: I would choose the computer because it’s easier and I would be comfortable more than writing.

D: Why is it more comfortable?

S20: Because writing sometimes hurts my hand and the computer.. it’s easy to.. it relaxes your muscles.

D: Ok.

S27: I prefer writing using the computer because it’s easy and it relaxes our muscles and.. it’s faster.

S26: I will choose the computer because if we have a mistake, we can just press a key and it will be erased. But if we are writing on a paper, we need to get an eraser and if we don’t have it, it’s a big problem.

S25: I usually choose both because lets say for example we wanna write our note. First, usually we write them on a piece of paper then we type them on the computer. But this way, it’s both easier in both ways because you can do the typing first then the writing. So they both depend on each other.

D: How? Clarify your point of view.

S25: Like you wanna for example, you wanna correct your students’ work and you got your note about one student written all of them on a paper. Before lets say there’s no electricity and you can’t write on the computer. But then when the electricity comes or something, you use the computer as a helpful tool to write your notes in a clearful way on the computer so you can understand them well.

S24: I agree with S20 and S21 because it is really easy to write on the computer than taking notes because um.. uh.. when like.. when you write, your wrist sometimes hurt and if you want to take a break but the computer is like practicing your fingers.

S23: I choose the computer because I think it’s easier and neater because if you write with a pencil, sometimes it would be messy and on the computer, it would always be neat.

D: I move to question number 2. *How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why would you feel so?*

S21: I would feel angry and sad because I’d like to use the computer more than when I use my hand. And I would also feel angry because I want to.. sometimes I use my feelings on the computer more than when I use it in writing. So I would feel bad.

D: So does the computer help you express more your feelings?

S21: Yes.

D: How?

S21: Like if I’m happy um.. I can write my feeling why am I happy and how..
D: Can’t you express your feelings with paper and pencil?
S21: Yes, I can but I like it more on the computer because I can like print the picture and...

S25: I agree with S21 because she also gets to have fun on the computer because when you write sometimes it’s like wow! I’m writing, I’m gonna get bored soon. On the computer you get to type and experience more things.

S20: Um.. I think I would be very sad and very angry because I’m kind of attached to the computer because it helps me a lot um.. by writing my ideas and getting stuff from the Internet and copying and pasting on a piece of paper, then I will print it, I will feel very happy because um.. it’s neat and tidy.

S22: I would feel very angry because I got used to the computer and if I don’t know how to draw, I can just sit on the computer and go to Microsoft Word and go to Google in the Internet and copy paste. It will be easier to find a drawing that you’re looking for and you can draw by the pencil.

S23: I would feel very angry because like if we have a long assignment, when you write it with a pencil you would feel tired and angry at the same time.

D: Why would you feel angry?
S23: Because like.. I would have fun on the computer more than writing.

D: Listen students. Usually when you gather information from the Internet, do you write them as they are in your assignment or you try to paraphrase them?

Students (in unison): We paraphrase them.

D: Always or sometimes?
Students (in unison): Sometimes.

D: When you paraphrase them, do you include the references at the end of the assignment?

Students (in unison): Yes.

D: What should a reference include?
S27: A reference should include the name of the site we got the information from.

D: What else? Only?
S27: And the title of what you’re looking for.

D: What else?
S26: And the date.

D: Now back to our initial question. How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why would you feel so?

S27: I would feel angry.

D: Why?
S27: Because... I forgot.

S26: I would feel sad because if I wanna do research, I can just go to the Internet and if I can’t use the computer, I need to go to the library and get books and search and search. But if I had a computer I would just write the question and the answer will come right on the screen.

D: Yes S27, do you have something to say?

S27: Yes, I will feel angry because I get almost all of the information from the computer when we are making a research or something.

D: And do you get all the information from the Internet?
S27: Most. 
D: Do you use Encarta.. 
S27: Yes. Sometimes. 
D: Just in school you use Encarta? 
S20: Yes because it is loaded on our screen and our teacher prefers Encarta more than the Internet. 
D: What if you don’t find relevant information on Encarta, What do you do? 
S20: We go to Google. 

D: Question number 3. Has the use of the computer improved your writing skills? I mean did the use of the computer helped you write better? If yes, how? If no, I mean if you think that the computer didn’t help you write better, you should tell me why. 
S21: Yes, writing on the computer improved my writing because sometimes when I go to the Internet on the computer, I can see information which I can remember, creative information which improves my writing when I’m writing on the journal the teacher asked us. I can remember what I found on the computer and write it in my journal. 

D: How do you make sure that the information you found is really creative? 
S21: Because sometimes.. in the computer.. there’s imagination, and creativity. 
S24: Yes it improved my writing because when I write in Microsoft Word, they put a red line under the word that I spelled it wrong, then I correct it, then I remember how do we write it. 
D: Ok. Fine. 
S20: I don’t think it helps me a lot because um.. when you put a red line under the word that I spelled it wrong, they just put the correction, I don’t learn from the correction because they do it for me. 
D: How can you learn if you don’t have the correction made in front of you? 
S20: I don’t really remember. But the computer does the correction for me. 
D: Do you prefer to do it yourself? 
S20: Yes and learn from my own mistakes. 
D: But sometimes the teacher corrects you mistakes.. right? 
S20: And then she teaches us how to write it and she explains for us what’s our mistake. 
D: So the computer doesn’t do this? 
S20: No 
D: Ok, fine. Anything else? Question number 4. What is the best/worst thing about using the computer to complete a written assignement? I need your honest opinions. 
S21: The best thing in the computer is when.. when I write a paragraph and uh.. write it in fourth grade word. 
D: What do you mean by fourth grade word? 
S21: Like I don’t like to write it like nice, and sad, and happy. I like to write more… 
D: How does the computer help you write this? 
S21: It can corrects my mistakes. And the worst thing is when the computer doesn’t correct the mistakes and it leaves it on that, I have to go back and check it again. 
S26: The best thing that I do on the computer is when I search on the Internet and the worst thing is um.. when I write whatever and I don’t answer the question.
D: What is the worst thing about using the computer? What kind of problems have you faced?
S26: When a virus comes to the computer and I have to turn it off.
D: And did it happen?
S26: Yeah.
S27: The best thing I like on the computer is when I write my own interpretations about a picture, but there’s nothing that I don’t like.
D: Haven’t you faced any kind of problems when using the computer?
S27: No. Up till now no.
D: Ok. Lets see what others will say.
S20: I think the best thing of using the computer is when I answer the questions and when I use my imagination when I’m answering the questions like using fairy tales, and um.. like for example a fairy which has wings and um.. I like to type that. And my worst thing is um.. when I make a mistake and I put backspace, sometimes all the text will erase.
S22: The best thing on the computer is when I go to the Internet. I enter Google, I find a lot of information about new things, and I write them on a sheet. But the worst thing about the computer is when a virus comes and.. or when you make mistakes and it doesn’t go or when the computer..
D: What do you mean by “it doesn’t go?”
S22: When we make mistakes and he don’t know how to correct it and.. like my family name is Khalil, they don’t have this name, they put a line under it and they put Khaled, but they don’t have Khalil.
D: So everytime you print out you work, you get your family name as Khaled and not Khalil?
S22: No, I keep it Khalil. I put only ignore.
S25: The best part is when I feel proud of what I’m doing on the computer and the worst part is when they underline every single word I write, like I write ‘because’.. ok I forgot to write the u and then I keep on searching and they’re all blocked, I can’t correct them.
D: What do you mean by “blocked?”
S25: Because sometimes my brothers and sisters at school, I come.. I wanna use the computer for example at Microsoft Word, they already put ignore, so everytime I wanna see my mistake, it’s already underlined but when I go to the other word, it just changes alone. And I wanna know my mistake (nervously).
S23: The best part of the computer is when like I want to write a paragraph and I want to search for pictures relevant to it. I just find it in front of me. I don’t have to grab a pencil and draw it. And the worst part is like sometimes I type slow so I take time to finish the assignment.
S21: I want to tell something to S22.. that when they put for you a line under Khalil, you can press the right button because the click button you can add to the dictionary, there’s a part that says ‘add to the dictionary’ and then you’ll add it and they will not put for you a red line anymore.
D: I want you to repeat what she said and to clarify more her point.
S25: The best part of using the computer is when I feel proud of what I’m doing. For
example there’s an assignment, I got CLS voices on it and I’m proud of what I did so I’m happy typing it. But the worst part is when they underline it and I wanna know where’s my mistake but I can’t.

D: Can’t you just press right click and see the corrected spelling of the word?
S25: Yeah, sometimes I tried but it gets stuck on a.. the computer at home because I usually type at home. It gets stuck, but at school not usually.

D: Alright.
S20: I just want to add something of what I said. The best part is when for me.. is when I finish typing everything with text and pictures and everything and then I print it and I see my work, I feel very proud of myself and I feel that I did something right and it was very creative.

D: Ok. S27, do you anything to add?
S27: No, the same thing.

D: Question number 5. If you were asked to choose the task or piece of work you have written using the computer, which one would you choose? What makes you feel that the written assignment you have selected is better than others you have written?

S21: I would like the paper that I did today, that we got a picture and we had to write the interpretation, three interpretations of it or more and I prefer more than others because the other ones, we don’t have lots of pictures in it and it looks dull. But the picture that I chose are I more fun and more exciting to experience.

S26: The best assignment I did till now is when I wrote a Poem about “The Treasure.” I chose it because it has lots of rhyming words and lots of descriptive words.

S22: The best assignment I’ve written is when we wrote about “A Small Scientist”.

D: Why do you think this assignment was important?
S22: Because we answered the questions as we were small scientists and so we found out that we are small scientists because all of the skills that scientists use, we use them sometimes.

S24: The best assignment I’ve written on the computer is when the teacher gives us the journal and she puts for us CLS voices to print it out. I chose this because um.. the CLS voices the teacher told me to print out, I felt proud of myself like I use my imagination to write it.

S23: The best assignment that I wrote on the computer is the one that I gave it to you today.

D: What was its title?
S23: “How we Organize Ourselves”, different interpretations because like.. when I gave it to you, like it was colorful and I prefer it more than the others and this one we do it on Print Artist and it has like the picture and our interpretations about the picture.

S27: The best thing I made on the computer was when I wrote the name of the systems and the organs and their functions because I learned many new things.

S20: First of all, I have two things that I wrote on the computer which I like best. The first one is “How We Express Ourselves” the title. We needed to predict our naming profiles. The first one is “Open-minded” and the second one “Empathy”. We should look what these word mean. And then we need to research what they really mean. We need to write a definition. And our next task, we need to search for a Chinese proverb.
D: Ok. What else?
S20: I like the title “How We Express Ourselves”. We need to choose a picture and write our interpretation of this picture. I liked it because it had a picture and a lot of colors.
D: Ok. Fine. Lets move to question number 6. Do you use the Internet when you are asked to complete a written assignment? How do you use it? Provide me with some examples.
S21: Yes I use the Internet when I want to accomplish my task by..
D: How do you use it?
S21: By going to Google and sometimes I get pictures and there’s a text and an explanation or there’s the text by itself.
D: When you gather information from Google, do you copy paste and put them as they are in your assignment or you try to paraphrase them?
S21: Sometimes, but most of the time we change in our own words.
D: Bravo.
S27: I use the Internet for searching for information about the written task that the teacher gave us.
S26: At school, I don’t really use the Internet, I use the.. Encarta. But at home, I use the Internet and especially I go to Ask.com and I write the question on the line and when I press ‘search’, the answers come and I write them on the paper.
D: Does the teacher provide you with reliable or helpful websites?
Students (in unison): Sometimes, regularly.
S20: I use the Internet by getting, most of the time I get pictures that I think they’re nice and I get a lot of fairy tales um.. because I copy paste the words and then I print them, I do an activity um.. for me and my sister so we can do this activity. So my sister is young and she likes a lot fairy tales and I like to prepare these for her.
D: Great. Question number 7. Who helps your when you have difficulties with writing using the computer?
S27: At school, the computer teacher helps me but at home, my mom and dad because they are both.. my dad is a computer engineer and my mom is a computer science.
D: And what about your classroom teacher? Does she help you?
S27: Sometimes she helps us.
S21: I can do it, I can manage it by myself. I can just press Alt and Control and then Delete and then I press Task Manager and then I exit it and I reopen it.
D: I didn’t understand what you meant. Would you please clarify more? Why do you use these features?
S21: When the computer is locked for example, when you need to open the computer, you also press Control Alt Delete and then you have to write the password.
D: At home, who helps you if you face a problem on the computer?
S21: My mom.
S20: At school, my friend who is seated next to me mostly helps me.
D: Does he or she explain orally?
S20: He or she explains to me what to do or sometimes he or she shows me. But at home, my big brother shows me how to do it and explains it for me because my mom has work.
S22: In school, my English teacher and computer teacher sometimes help me. But at
home, my brother helps me because my mother works.
S24: At school, my computer teacher helps me sometimes or I ask a friend and they help me. And at home, I tell my brother because my brother knows and I don’t tell my mom because my mom doesn’t really know and my dad travels.
S23: At school, Miss Juheina and the friend sitting next to me helps me and at home, my mother helps me because my father is at work.
S25: I don’t always have difficulties using the computer, but sometimes I need help a bit with the teachers and the friend sitting next to me but I still learn from my mistakes because once I experienced it when I did a mistake but then I did it correct the next time.
D: The last question is the following. **Do you have any other comments about this subject?**
S21: I express myself on the computer.
S22: I express myself by the computer.
Interviewer: Diana Fidaoui (D)
Interviewees: IVC students (Group 1)

D: Good morning students, my first question to you is the following: If you were given the chance to choose between using the computer to write or using paper and pencil, what would you choose and why?

S33: I would choose typing on the computer because it’s a little easier and you don’t get tired quickly. And the computer it’s a tool to use and you’re not really using uh... and it’s not such a hard tool to use. And sometimes you can even print your work and it can be neater and more organized.

S29: I prefer the paper and pencil because um.. we write and it’s coming from our hand and we can erase but I feel more comfortable writing.

S30: I chose the computer because if we write in paper and pencil sometimes we get mistakes and in the computer we can check our mistakes.

S32: I prefer to write in the paper and pencil because when I write there, I have more imagination than.. I could catch my mistakes and erase them. But in the computer maybe there’s a line, a red line under but I prefer the paper.

D: Any other answers? Shall I move to question number 2?

Students (in unison): Yes.

D: How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why would you feel so?

S37: I would feel mad because if we’re writing on a paper and we’re erasing a lot, it will get ruined and it won’t be neat. But on the computer, it’s neater.

S34: I would feel very sad because I enjoy more the computer. It’s better for me.

D: Why is better for you?

S34: Because it’s easier to write. On the paper and pencil I get confused.

S29: I would also feel comfortable because sometimes on the typing, I don’t find the letters. I can’t find really the letters, but I write them with my own hand if I’m using a paper and pencil also.

S33: I like to write on the computer more than writing on papers but it’s also not so bad to write on papers so I’m fine with it.

S32: I would feel the same because as long as we write on the computer, it’s the same as we write on the paper and nothing will be changed.

S30: I would be mad because when I write my muscles get tired and sometimes I can’t write no more and the computer it’s like a more complex mind.

S29: I would also feel mad because sometimes we could change the handwriting and it would be more nice if we change the handwriting.

S35: I would feel a little disappointed because when I’m typing on the computer, it’s more easier and it’s better.

D: What about you?

S28: I just wanted to say the same thing.

S30: And sometimes I feel bored when writing on paper and pencil because like there’s more things on the computer and newer and funest things.

D: Can you give some examples?
S30: Like colors, and pictures and the... assignments... sometimes we need to do research on them and we don’t need to look in books. We can just go to the computer and use the Internet or Encarta and a lot of stuff.

D: Great!

S32: I feel really bored when I type on the computer but on the paper, even if my hand cramp or my muscles are tired, I keep writing but in the computer my eyes will be closed and that’s why I’m very bad at the computer and I don’t know how to open it so much.

D: I can understand. Lets move to question number 3. Has the use of the computer improved your writing skills? I mean did the use of the computer helped you write better? If yes, how? If no, I mean if you think that the computer didn’t help you write better, you should tell me why.

S33: I agree... it can help us sometimes write better because there are new keywords and if you type a word wrong they can show you other words and when they want to fix the word you wrote wrong so you can learn also more words. But still... um... well maybe because you’re typing the same thing you wrote, you’ll not always going to learn something from the computer. But you do sometimes on the Internet.

D: How do you improve your writing skills by using the Internet?

S33: Because if we’re searching for something and we find what we need to know, we can learn new vocab words in the paragraphs they do it and the news and everything.

S34: It doesn’t help me a lot because I already can write because I’m only writing what I know, so I already know them.

S29: The use of computer by typing helps me improve my writing because sometimes when we write a word wrong, it fixes us... and it fixes our... the word and it gives us and it gives us other definitions and if we find another word it’s better and a better vocab, we can replace it.

S32: In the computer, it helps us a little bit because if there’s a word we couldn’t understand and we don’t have a dictionary at home, we could open the computer and the dictionary in the computer and find the word and if we typed it incorrectly, they could put us how it’s written correct, we’ll click it and we’ll hear how they pronounced it and they could give us the meaning.

D: Do you agree on what she said?

Students (in unison): Yes.

S28: The use of the computer made me write better like if the word I don’t know and it’s wrong, I could highlight it and later up I could press something and it could tell me the word correctly.

S30: Yes the use of computer helped me write better because in the computer it helps me write faster and I have new vocab words to see in the computer.

D: And how do you get your vocab words?

S30: Like from the... when I’m typing I get a mistake. Usually they put us the correct word or new vocab.

S31: I could have new vocab words like in the computer, like there’s something called Encarta dictionary. I type the words and I would know what’s the meaning of it and I could write it and like it’s one word I learned and I could use in writing.

D: Anything else?
S30: And also the computer helps me know more in research because sometimes in 
books they don’t have all the.. all the information in their paragraphs.
D: So what do you do if you need information that are not found in books?
S30: I go to like Google or something so I can get new information.
D: Ok. And do you know how to paraphrase the information?
Students (in unison): Yes.
D: Who taught you?
Students: Our teacher.
D: What do I mean by paraphrase?
S33: Retell in your own words.
D: You know.. because if we use the information we got from Google as they are by 
copying and pasting them without paraphrasing them, what do we call this act?
S34: Copyright?
D: It’s plagiarism. What do I mean by plagiarism?
S29: By copying.. like if I’m writing an information written by Roald Dahl and we 
copy... and we cut and paste into like.. we want to write our own book and we cut 
some information form Roald Dahl’s book, we’d be plagiarizing.
D: So we would be stealing what others have said about a specific issue and this should 
be avoided.
S34: But if the teacher for example asked us to research about something, we copy paste 
it and we put it on the Word document to print it, that’s plagiarizing still?
D: Yes, to a certain degree yes, it’s plagiarism.
S34: For information for the school, miss Nour says to get information from the Internet 
or from a book.
D: If you know how to paraphrase the information, it’s better to paraphrase them. If you 
don’t know how to paraphrase and if the teacher asked you to just copy and paste 
things from the Internet, so that’s fine. If you were asked to paraphrase, you should 
paraphrase. If your task was just to copy and paste things, so you just copy and paste 
things. It depends on what the teacher wants you to do.
D: Do you write the references at the end of the assignment?
Students (in unison): Yeah, sometimes.
S33: But if sometimes if we just copy and paste things and we don’t even read it and 
review it, sometimes we can have some words we don’t understand and we just put 
them for no reason. We should always paraphrase it in our own words so we can 
understand it.
S29: I have a question. If we like copy and paste and from a book and we write the 
resource, from where we got the information, is that plagiarism?
D: Yes. You should paraphrase the information and after paraphrasing, you write down 
the reference. Even if you paraphrase, you should write the reference.
S30: We showed paraphrasing when we learned about the human body. We went into.. 
we got information from the Internet. We went in partners and we wrote them down 
in our own words.
D: What do you mean by ‘we went in partners’?
S30: I mean we worked in pairs.
D: Did you enjoy this activity?
Students (in unison): Yes, a lot.
D: Question number 4. **What is the best/worst thing about using the computer to complete a written assignment?** I need your honest opinions.

S34: The best thing is that you don’t get tired and the worst thing is that sometimes the computer changes something for you while you’re writing without you wanting to change it. Sometimes for example, you press enter and it’s not a new sentence so it makes it a capital letter for example.

S37: The worst thing of using the computer when I write an assignment is like when I want to type I’m slow because I don’t know where are the keys and everything in the computer.

S30: The worst thing about completing the assignment is that sometimes the computer gets a virus and then you can’t complete it, and you need to refresh the computer but then the saved work will go.

D: Have you ever faced this problem?

S30: Yeah! Like two time.

S33: A lot of times. I used to.. we have homeworks to save sometimes we write paragraphs in our journals and our teacher tells us to save them on the computer to put them in the CLS voices. So when I save my work sometimes, the electricity goes or there’s a virus in my computer. I have a laptop and a computer, I try both but sometimes I get viruses all the times. But my dad fixes them for me. But because it takes time and I want to type all my work. I’m not that slow typing. I’m a little fast. A little. I don’t type really slow and I don’t type really fast like the others. I like typing fast to finish my work quickly, but I don’t type very slow, I type in a normal way. I’m not that slow.

S35: The best thing about using of computer to complete a written assignment is that you can type it, it’s easy, and it’s faster when you type. The worst thing is that sometimes before I save it, the electricity goes off.

S32: The worst is when I’m accomplishing my assignment somebody will say any word, I’ll type it.. I don’t know how.. I’ll type it directly and then when I read my sentence it’s wrong and I get confused. And the best thing is when it’s an assignment and I type in peace because if it wasn’t in peace, if someone talked and lets say if he said ‘a head’, I’ll type ‘head’ and all it’s getting confused.

D: Would you clarify more what you’ve just said?

S32: When I am typing and someone would say a word, example ‘head’, I’ll type it and you read my sentence.. it’s wrong. So that is the worst thing. And the best thing is when I type in peace without any sounds.

S29: The best thing of typing a written assignment for me is that I don’t know where some keys where they are and sometimes I’m a fast writer. The worst thing is that sometimes when there comes a virus, I have to fix the brain of my computer.

D: Did you ever face this problem?

S29: Yes.

D: Where? At home or at school?

S29: At home. Yeah and I have saved works and saved games, so I loose everything.

S28: The worst thing of typing an assignment on the computer is when like on time miss Nour told us to save something. We write our name and the planner yeah and later we have to save it. Sometimes when I save it on my computer, later if I’ll open it, it
doesn’t show so I have to repeat it from the beginning and it happened with me
three times.

S32: The worst thing also is when I type it very slow and I’m very worried when I’m
typing, the written piece will go and I loose everything so I’ll be very mad and then
I’ll say why did I type it very slow.

S34: The worst thing when I do my assignment on the computer is that when I want to
save something on the computer and by mistake I press something, it goes and then
I have to type it again. Sometimes part of it goes to another page so I get mixed up.
I write the same word again.

S35: The worst thing when you type on the computer is that sometimes when you save it
and the next time you want to open it, it’s gone.. pouff it disappears. And the best
thing.. is when I type it’s easy for me because I know the places of all of the keys
and I type fast.

S34: About the electricity problem, you could get a UPS that will keep your computer
working and you save it quickly. I have one.

S31: At my house, when the electricity goes, before I save it, my work goes in my house
and then when I got a UPS, the electricity goes and the work still get saved. I put
’save’, I turn off the computer and it will be better.

S29: But sometimes I’m annoyed from the sound of the UPS because it gives some
beeping.

D: Question number 5: If you were asked to choose the task or piece of work you have
written using the computer, which one would you choose? What makes you feel
that the written assignment you have selected is better than others you have
written?

S29: I think that my Poem, I mean “I’m A Sandwich”, the imagination paragraph it’s
better because I put more imagination and it’s better and we learned about the
digestive system there and it talks more about it.

S34: The most enjoyable written assignment on the computer was the Poem entitled “The
Runner”. I enjoyed it because uh.. first of all, it was very short but still, it took me
some time to change the colors and make picture. I enjoyed doing that a lot.

S33: The most thing I enjoyed typing was my paragraph that said “Being A Sandwich”. It
tells us about our digestive in a much much much fun way because you don’t say
the part in your digestive system. You just.. you describe them in a way as if you
don’t know what they are and what they’re called and I really spent a lot of time on
them because first it was very long and I had to make a lot of borders and pictures
and it was very fun and it was full of my imagination and I liked it a lot and my
teacher also enjoyed reading it.

S37: I chose “My New Year Resolution” paragraph because when I read it again I could
feel about what I did this year and how my attitudes were.

S28: The most enjoyable assignment that I wrote on the computer was the Poem about
“The Runner”. I chose it because it was so rhymy and it was short and I put many
funny things about him.

S32: I chose an assignment that is like “If I Were Eighteen”, if I were a cat, this
assignment is fun and it’s comfort for typing.

S36: I enjoyed writing the one that “If I Were a Sandwich” because you talk about your
adventure inside the body.
S35: I chose the Poem “The Immune System” because it has a lot of creativity and rhyming words in it and it was really nice. I loved it a lot.

D: Did you enjoy writing it on the computer?

S35: Yes.

D: Why?

S35: Because on the computer for the immune system, it’s like you want to retell it, paraphrase it. When we type it, the computer gives us new vocab words for us to use.

S30: I chose the poem that I made “The Runner” because I put in it a lot of funny things and changed some of the verbs and adjectives.

S31: I chose “If I Were a Sandwich” because in this story that I wrote I had very good sentence structure and I had good vocab words.

D: Let’s move to question number 6. Do you use the Internet when you are asked to complete a written assignment? How do you use it? Provide me with some examples.

S34: The use of the Internet helps me to complete a written assignment by giving me more ideas and more inspiration of my writing.

S33: When we have to type an assignment and we need to use the Internet and if I have to research about something and we also want to tell it in our own words and see what we’ve learned and our reflection on what we researched about, in the Internet we’ll find many many many vocab words because in the research when I also need to search for these vocab words so I can paraphrase what I’m searching for.

S34: I wanted to say like her.

D: What did you want to say?

S34: That when I research I could find more vocab words and its’ more easier than looking in books and there’s many places that gives you information more than one.

D: Ok. What else?

S35: We could use the Internet first of all to find new vocab words. And if we want to copy something from the Internet, we don’t just copy it, we paraphrase it in our own words because if you copy it, it’s not from you, it’s just from your head and which is not assigned to do.

D: Do you think that the Internet is really helping you?

S35: Not really. Only in few things. In a little details.

S30: I think it helps me because when sometimes they put new programs of typing with newer kind of details like more colors and newer pictures and funner ways to like make the pictures.

D: What else?

S32: No in the Internet I don’t use it much to do my homework because it doesn’t help us much. I just use it to find out about someone.

D: Do you mean to find something about somebody?

S32: Yes, a man.

D: A man like who?

S32: Mika.

D: Who’s Mika?

S32: My famous singer.

D: Alright. What do you think? Does the Internet help you complete a written
assignment?
S28: Not really.
D: Why?
S28: I don’t have an answer.
S29: The Internet doesn’t really help us complete a written assignment because it’s just for kind of research.
S34: If you have information and you know them, you can write them. But the Internet also helps you by finding more information.
D: Shall I move to question number 7?
Students (in unison): Yes.
D: Who helps your when you have difficulties with writing using the computer?
S29: Me no one helps me.
D: Even when you face a problem?
S29: I don’t really face problems using the computer.
D: And when you face a problem, what do you do?
S29: I try to solve it by myself.
S35: My little brother, he helps me at home if I’m in trouble in the computer or if there’s something wrong, or he tells me and I really get hurt because I don’t know nothing on the computer, he knows more.
S28: If I face difficulties in the computer, my mom helps me a little and sometimes if she’s not at the house, sometimes my dad.
D: And at school?
S28: The teachers. Miss Juheina or miss Nour.
S33: When I find difficulties in typing on the computer, or in anything on the computer, I try to solve my problems by myself and I really.. I don’t want help from anyone because I need to figure out my problems but if I can’t solve and I’m not understanding what’s wrong, I ask my mom to help me or in the school, miss Juheina helps me.
S34: If I face a problem in the computer, I first.. I try to solve it myself and see what’s the problem. Then if I’m really not understanding the problem, I seek the help of an adult like the teacher or my parents.
S31: When I face problems, my mom helps me at home and when I face problems at school, the computer teacher or miss Nour help me.
S37: When I face problems at home my dad helps me because he’s a computer engineer, he fixes many computers and the laptops that we have at home.
D: And at school, who helps you?
S37: At school, miss Juheina or miss Nour or if none of them are there, I’ll ask miss Dania (Lower Elementary IT Teacher) if she’s in to help me too.
S30: When I face a problem in my house, my dad helps me because he’s an architect and he uses computers a lot and he loves them a lot.
D: And at school?
S30: At school, miss Juheina and miss Nour.
S36: If I face a problem in the computer at home, I’ll ask my big brother or my mom or dad and at school sometimes I ask my friends or the teachers that are there.
S32: At school, if I face problems at school in the computer and I don’t know what to
click, there’s my friend who’s sitting beside me and I tell him: what do I do now? He tells me do this and do that.

D: Does the teacher allow you to help each other when you’re working on the computer?

S34: We only say it in words, we never do it for them.

D: Do you have any other comments about this subject?

S33: I love working on the computer and it’s a really helpful tool and I think if we didn’t have computers to type on or to do anything, it would be a little tough for us. But computers help us and if we’re searching for something on the Internet, we won’t always find it in books because books are already printed work and things can change from time to time and on the Internet they always change.

S34: I think the computer is a very useful tool. I love it a lot. It also helps me to learn things in a newer way instead of just doing it the simple way like writing with a pencil and paper. The computer is much more organized.

S29: I hope many more inventions would be invented and more computers would be created and more technology, but I think I have.. I don’t think.. I can’t use the computer a lot because I have the computer and I have this card so it doesn’t have a lot of time for the Internet.

D: Ok. I see.

S32: I hope and wish some day I will not face anymore problems.

S28: Miss, I have a question. Why did you choose the tool the computer and not something else?

D: Because it’s the subject of my research and I find it interesting.

S33: Are you good at using computers and do you like to use them often?

D: I usually use the computer to complete my written assignments because at the university, we are not allowed to use paper and pencil to submit a written assignment to a professor, so we are asked to type our assignments on the computer and use the Internet especially when we have an assignment where we have to bring information from the Internet and paraphrase them in our own words. And most importantly, we are forced to write the references at the end of the assignment.

S33: Do you enjoy to do that?

D: Yes, I enjoy it a lot. And it comes by practice typing on the computer, using the Internet, it comes by practice.

S31: Do you use the computer every single day?

D: No, not often. I use it.. let’s say three times a week just to.. if I have to search for articles to read and to submit homeworks, I use the email to submit a homework electronically to my teacher and to search for information on the Internet, to search for articles, that’s it. I do not usually chat a lot with my friends on the Internet.

S30: I just wanna say one tiny thing. Life is boring without computer.

D: You are right.

S36: Do you find computers interesting?

D: Yes they are very interesting. They are helpful tools that we can use to make our writing better, more neat and more clear to be read, especially if the person as a bad handwriting and if that person doesn’t like to submit works that are handwritten. So the computer is here to help that person improve his writing skills.

S34: The computer is a helpful and special tool and if we don’t have computers, it will take a lot of time while doing our assignment and its’ special and it’s fun in typing.
S35: I see that the computer is a wonderful tool. It helps us in many different things to do and especially to submit homeworks or to find information on the Internet. I feel sorry to some countries that don’t have computers or some people that don’t have computers because the computer helps in many different ways using it.

D: And in the future also.

S35: Yeah and in the future mostly, of course. In the future, we’ll have many new things to learn about. So it’s better to use the Internet and the computer.

D: And if you want to apply for a career, for a job later on, one of the things they ask for is you computer skills. If you don’t know how to use the computer, you won’t be hired.

S34: Did you know that in some colleges, they don’t allow you to enter the college unless you have a laptop or a computer because they need to know that you are well-skilled and well-principled.

D: Thank you Grade IVC (Group 1) for your help and support. I love you all.
**Date:** Thursday, February 28th, 2008 and Friday, February 29th, 2008

**Interviewer:** Diana Fidaoui (D)
**Interviewees:** 4C students (Group 2)

D: Good morning students, my first question to you is the following: **If you were given the chance to choose between using the computer to write or using paper and pencil, what would you choose and why?**

S39: I will choose paper and pencil because the computer sometimes hurts our eyes if we use it a lot.

S48: I use the computer because if we make a mistake, the computer puts a line.. underline on it.. yeah.. and we should figure out how should we.. how we should type this word.

S38: I use the paper and pencil to put all my ideas together and then to put them all on the computer.

S43: I would write on the computer because if I did a mistake, the computer will know what is my mistake and it will correct it.

S44: I prefer both because two are good.

D: Why? Justify your answer.

S44: Because the computer, they put your mistakes but paper and pencil, you can erase.

S40: I prefer computer because it relaxes me more and I feel more comfortable.

S47: I prefer the computer because uh.. it let me type faster, write faster.

D: What else? Don’t you prefer writing with paper and pencil?

S47: No.

D: Ok.

S46: I love both because I know how to write and type together. So I love both.

S45: I prefer writing on the computer because they will help me write the sentence structure better and they tell me my mistakes.

S44: I prefer the computer even because uh.. because I can have better writing skills. It helps in my typing.

S41: I prefer the computer because it’s neater when you type it and print it on the computer.

D: Type what?

S41: Type anything. It’s neater.

S42: I prefer paper and pencil because if we type slow, it will take a lot of time to type.

D: Tell me, what about your keyboarding skills? Are you that fast at typing?

S42: Not really.

S44: My speed in typing. In the program, they said 12 P W (Words per minute).

D: Shall I move to question number 2.

Students (in unison): Yes.

D: **How would you feel if you were told that you were no longer allowed to use computers to complete a written assignment? Why would you feel so?**

S43: I would feel kind of sad because when I type on the computer, my.. my work would be neat and.. and my typing will be better. But.. if I don’t type on the computer, so I could.. I couldn’t get a lot of neat and my typing skills wouldn’t improve.

D: Do you have a nice handwriting?
S43: I don’t know.
S38: I would try getting a low chair to do the typing or I would let someone do the typing for me.
D: A low chair? I didn’t understand.
S38: Yeah. Like a roller chair you.. you put the button and it goes down so it takes you down and you start typing.
D: But you didn’t tell about your feeling if you were told that... (interrupted by S38)
S38: Miserable.
D: Why?
S38: Because I can’t type.
D: Ok. I will repeat the question. If I am your English language teacher, I got into your classroom and told you: listen students, from now on you won’t be allowed to use the computer to complete a written assignment. No computers anymore neither in school, nor at home. How would you feel then?
S48: I would feel that like I am stuck somewhere and I wanna get out of it and I would be so sad because every single day I use computers for writing, chatting, and for Internet and playing games.
S45: I will feel sad because when I’m writing, maybe I have some mistakes and when I give my assignment, it will be not neat.
D: Ok. Yes.
S42: I will be sad because when I’m typing, I’m improving in typing skills.
D: What else? Would you like to add anything else?
S42: No.
S39: I will feel sad because I use the computer a lot to.. to type to my friends things and send them messages and I like to play in the Internet.
D: Do you know how to chat on the Internet?
S39: Yeah!
S44: I’ll feel lonely because I’m not even talking to my friends on the chatting. I feel lonely without them. Sad.
S40: I would feel sad because when I type on the computer, when I type on the computer and I get a word wrong, I could learn from my mistakes from the computer, but when I’m writing on a paper, I think if this word is correct or this word is wrong.
S46: I will feel sad but not a lot because we can still use the paper and pencil to finish our assignment and the writing. But I will feel sad.
D: Lets move to question number 3. Has the use of the computer improved your writing skills? I mean did the use of the computer helped you write better? If yes, how? If no, I mean if you think that the computer didn’t help you write better, you should tell me why.
S39: Yes I improved my writing skills because we’re learning.. when we make a mistake, they tell us our mistake and we learn how to write it then.
S41: I improve in my writing skills because when I type a lot, I memorize where the letters are. So it’s easier for me to type.
S43: I improve in my writing skills because I learn when I make a mistake, I learn that I made this mistake and they tell me how to write it correct. And I’ll get faster when typing on the computer.
S40: I improve in typing skills because, because it helps me type faster yeah and
sometimes.. and sometimes we could learn from our mistakes.
S44: It helps us type better.
S38: I improved in my typing skills by not looking at the computer, by looking at the
screen but not looking at the keyboard.
S48: I improved in my writing skills because if I do a mistake, I.. I.. I could next time if I
want to write a dictation or something, I could memorize that word and I won’t get
a mistake in it.
S44: I like.. it’s good.
D: Why is it good? Tell me why.
S44: Because it helps us write better on paper and pencil.
D: Bravo! Great!
S46: It helps me improve my writing skills because when we type on the computer, we
would have better sentence structure and we have a great idea of what our mistakes
are..
S47: I improve my writing skills because when I make a mistake, it shows me.. it tells me
how to write it.
D: Did the use of the computer improve your writing skills?
S45: Yeah because when I make a mistake on the computer, I wanna know my mistake
and they might put me a green line under my sentences and I’ll learn how to fix my
sentence structure and ok.
D: Question number 4. What is the best/worst thing about using the computer to
complete a written assignment? I need your honest opinions.
S43: The best thing of using the computer is because it improves my writing and tells
me.. and tells me how to write a word and it’s neater than our handwriting. But the
worst thing is that it takes time to finish the assignment.
D: How much time does it take for example to finish one assignment?
S43: 10 minutes or 15. So it’s slower than paper and pencil.
S44 : The best thing is that it helps us learn from our mistakes. And the worst thing ever,
it hurts our eyes if we stay a lot, if we keep typing like two stories, it’ll take time, so
our eyes will hurt us.
S46: The best thing when typing an assignment on the computer is that we can do
creative things on the computer. And the pencil and paper, we only use the pencil
uh.. and the eraser to write. And the worst thing is.. the computer sometimes it’s
stuck and it doesn’t work.
S41: The best thing of using the computer is.. is that you will learn from your mistakes
and it will help you type better. And the worst thing is that maybe you don’t know
where to type your assigned work and uh.. and uh.. and uh.. that’s all.
S39: The best thing of using the computer for typing is that it lets us know our mistakes.
It underlines the words that are wrong and then we’ll fix them. The worst thing is..
is that sometimes we mix up with the letters and we.. we don’t find them. But when
we’re writing in the pencil and eraser, we write faster, we write faster.
S40: The best thing about the computer is that it helps us work harder and it makes us a
bit smarter because uh.. because we get to think a lot when we’re on the computer.
D: How?
S40: When we’re doing spelling, or if you need help in something, it tells us. And the
worst thing about it is that when we want to do some things, a lot of things in it, in
the computer come and there'll be a virus in it.
S45: The best thing in the computer is that when you finish your assignment, you won't
have any mistakes because you have corrected them because the computer
underlines it and the worst thing is that the computer can get ruined or stops and
you can get pictures, nice pictures from the Internet, not like in the pencil and
paper.
S43: The best thing is that we have fun when we're typing.. we have fun when we're
typing on the computer. But the worst thing is sometimes your work is.. deleted.
But when we're typing, it stops sometimes because there's no more battery.
S44: Miss, the best thing is that if you're writing in pencil and paper, you might loose the
paper, but if you're writing, typing on the computer you'll save it and never loose it
again. And the worst thing is that sometimes your.. the computer will turn off like...
suddenly it will ruin.. like S40 said, a virus will come and it will take away your
work. But when you're typing, no viruses.
S48: When S43 said that in the laptop when the battery turns off, it doesn't really delete
the work. When you.. when you open it again, you will find it then.
D: Question number 5: If you were asked to choose the task or piece of work you have
written using the computer, which one would you choose? What makes you feel
that the written assignment you have selected is better than others you have
written?
S43: I would like the assignment “Nature” I did on the computer because it talks about
nature and I feel it's really good and I like nature, so I would choose this one.
S44: I would choose well about “My Favorite Things” like my hobbies..
D: What is the best assignment you have written, can you think of one?
S44: It's a Poem.
D: So it's a poem that you've written on the computer, and why do you like it the most?
S44: Because it's funny.
D: It's funny? Did you enjoy writing it on the computer?
S44: Yeah!
D: Did the computer help you write this poem?
S44: Yeah, but the computer, it.. uh.. how do we say? Bet2attish shway (in Arabic).
D: How?
S44: Like when you press a key like 'L', it doesn't show. The 'L' doesn't come.
D: Why it doesn't show?
S44: I don't know.
D: What made you choose the topic “Nature” as a favorite assignment?
S43: Because uh..
D: Did you write it on the computer?
S43: Yeah.
D: And did you enjoy it.. you like this assignment because you've typed it on the
computer or for something else?
S43: For typing.. no not for typing. But I like what says this assignment.
D: Ah, ok. So you like the topic of the assignment.
S43: Yeah.
D: But not because you've typed it on the computer?
S43: Not really.
D: Ok. Yes, S46, go ahead.
S46: My best assignment was when I wrote my "Poem" because I love writing poems on
the computer and when we're writing the poem, then the miss tells us to use
creative things and with the paper and pencil we can't do a lot of creative things.
The computer it has Internet, we can bring pictures from the Internet and paste
them. So I think that I love computer more.
S47: I chose when I wrote the poem "Skeletal System" because in that time I used the
background and lots of things.
D: From where did you get your background?
S47: From uh... a program. It's called Microsoft Word.
D: Do you use it?
S47: Yeah.
D: To do what?
S47: To type and put a nice background.
S45: My favorite assignment was when I wrote about "The Muscular System", about our
body because I would love to know more about our body because I would take care
of it... better.
D: You don't like this assignment just because you've typed it on the computer, but
because you like the topic.
S45: When I typed it on the computer, it looked better than on paper and pencil.
S40: I would like to publish my assignment when I wrote about "How My Behavior was
in the Music Class" and I chose it because I expressed myself in many words and
my teacher liked it and uh... and I think that it showed like how... it showed how I
was in the music class and I really would like to type it on the computer and print it
out.
D: Why would you like to type it on the computer? How does the computer help you?
S40: Because it's neater and you can use like a lot of things like the Internet to get to get
some pictures on your piece of writing and if you're writing it, you wouldn't have
all those ideas that when you're using the computer. The computer can show you
many things such as pictures, it can show you different websites and if... because if
you're writing, you only, you can only um draw or use more your mind but if you
use the computer, you can go beyond that.
S41: I chose when I wrote my "Poem". I chose it because I show my expression when I
wrote it and when I typed it on the computer, I got like pictures from the Internet
and..
D: So it made your written assignment more attrac...
Students (in unison): tive.
S48: I liked when I wrote my poem about the "Nervous System" because when I wrote it
on the computer, my handwriting was better and because I learned a lot of things
form the nervous system... about the nervous system.
D: Bravo. Yes.
S39: The best assignment I've written on the computer is "My Muscular Poem" because I
like talking about my body and making it sometimes funny and rhymy. And like
writing on the computer because when I write on it, I could put pictures and these
pictures concern my body.
S42: I would choose the poem of the nervous system because while I was typing while I was writing it, I was learning how to take care of it and to keep it healthy and everything.
D: You meant your body?
S42: Yeah.
D: Did you enjoy the experience of writing using the computer?
S42: Yes. I didn’t write it yet but I want to write it.
S44: I would even chose “My Best Friend From Nature” because it shows my best animal I like from the nature, that’s the parrot.
D: Let’s move to question number 6. Do you use the Internet when you are asked to complete a written assignment? How do you use it? Provide me with some examples.
S46: Yes we use Internet when writing a writing assignment on the computer because when we use the Internet, we could get many pictures, many backgrounds and many typing uh.. styles. Like we can.. And we can go to websites that show us how to type and learn some new kind of writing skills.
D: What kind of websites that show you how to type?
S46: No like in the Internet they give you some tips.
S38: Yes, I do use the Internet to get pictures, to get information.
S44: Me uh.. sometimes I would use because I use the Internet for a written assignment because I use it, maybe they gave us a research, I use the Internet for it, but sometimes if I’m writing a story, I use my imagination without the Internet.
S43: Well, I don’t really use the Internet. If I want to get a picture, I will get it from the program or I will get it from Encarta Kids, but.. because it’s hard to go to the Internet.
D: Do you find it hard?
S43: A little. And I don’t.. I already wrote everything and the teacher doesn’t want to change. I really don’t need the Internet sometimes.
D: Do you know how to use the Internet?
S43: Yes I know how.
D: Who taught you?
S43: My mom.
S40: Miss I don’t really use the Internet if I want to get pictures because I always look in books and get pictures and photocopy them and my parents don’t really let me go on the Internet alone and there’s rules on the Internet for me. So I don’t really use the Internet and I don’t think it’s that important to me because I rather look in other things rather than the Internet that can help me a lot and that can give me helpful tips.
S41: I go to the computer and get information and.. to do my assignment and it’s easier because you could get.. you could get pictures in the computer faster than using a book or anything.
S48: No I don’t the Internet because it’s not always safe. It’s dangerous to always go in the Internet because sometimes they could put viruses.
D: That’s why you don’t prefer to use the Internet? Even if you have a research?
S48: No I can use a bit the Internet but not a lot. Just for important reasons because I can draw things. We shouldn’t always bring that from the Internet.
D: Do you like to draw?
S42: Yeah.
S45: Sometimes I use the Internet because if I don’t have a book that is relevant to our
assignment, I use the Internet. The Internet has pictures and they help me find
information about my assignment and sometimes books.
D: Books on the Internet?
S45: No, books that I have at home.
S47: I use the Internet because it gives me pictures and backgrounds and lot of things..
D: Does it make your assignment look better?
S47: Yeah.. and I use it when I have a research.
D: Only?
S47: Yeah.
S42: I’d rather use something other than the Internet for research or anything because
there are safer ways to search for something.
D: Such as?
S42: Encarta or Encyclopedias and things that are safer.
D: What do you mean by safer?
S42: Like it’s a bit hard to go on the Internet and search for things.
D: So you need somebody to teach you find out things on the Internet. And does
somebody teach you?
S42: Yes.
D: Who?
S42: My dad.
S44: Right, computers need electricity to turn on?
D: Right.
S44: Bass (in Arabic) electricity, it’s like destroying nature.
D: Why?
S44: Electricity, if we use more, we might destroy nature.
D: So that’s why you prefer not to use the Internet?
S44: Yes, sometimes like if I’m doing research I prefer to use the encyclopedia. It’s like
an Internet, it’s like a computer.
S39: I don’t always use the Internet when I want to do something on my assignment. I
could just.. I don’t use it because I want to use my own creativity and be creative in
my own way without getting the computer’s help.
D: If you have a research for example, will you be creative? You need new information.
Right? Form where can you get them?
S39: I would get them from the Internet sometimes and mostly.. I could get them form
books.
D: Ok. Who helps your when you have difficulties with writing using the
computer?
S46: There are many adults in the school that I can ask like the teachers and the directory
and we have a lot...
D: Directory?
S46: Director, I mean.. so there are many adults around us. And at home my sister knows
a lot about computers so..
D: How old is she?
S46: In middle school, Grade 7, like 12.
S43: My mom helps me by using the computer and in school teachers.. almost
everybody. But sometimes I try to uh.. I try to explore many things on the computer
without using any help. And there’s a program that helps us by typing..
D: What is it called?
S43: Mr...
D: It’s Mavis Beacon Teaches Typing. Right?
S43: Yes.
S42: I, in home and at school, when I have difficulty, I try to solve my problem alone and
if I can’t then I ask somebody to help me.
D: And at school?
S42: The teachers.
D: Ok.
S48: I try to also solve it alone because sometimes no one can help us. Sometimes the
teachers are busy and our parents aren’t at home so I solve it by myself, I try.
S41: At school, we have lots of teachers that help us. And at home, um.. my sister.. my
sister could help me and my mother could help me too.
S41: At home, if I have any difficulties, I would ask my big brother or my father to help
me in that because when I want to go to a program, I can’t understand how, so I call
one of them.
D: What kind of programs?
S41: Like if I want to go on something and then suddenly something happens. I ask my
father.
S38: These days, when I figure how to do it alone, I do viruses. My mom and dad doesn’t
let me anymore to find something out alone. So I keep it until my mom or dad or
somebody are available to come and help me.
D: At school?
S38: At school, I know everything.
S40: Honestly, the computer and I aren’t very friends. So I try to solve my own problems
alone but it turns out to be a disaster, so then I have to call an adult. And I would
really like someone just to tell me how can I solve my own problems without
making a big disaster because I don’t know what I’ve done to my computer at
home.
D: Do you call your parents?
S40: Yes.
D: Ok.
S44: If nobody can help me and I’m typing and suddenly like they put, the Internet is like
‘detected virus’ and then I can save my work and wait until my mom and dad or any
adult comes and they can help me.. they can help me get rid of the virus.
D: At school, what do you do if you face a problem?
S44: I’ll ask the teacher.
S45: At home, I don’t have any problems in the computer because I’m used to my
computer, how it works and.. but in school, I need the teacher’s help because I don’t
really understand what she says when we want to use the computer, at school.
D: When you don’t understand what the teacher said, do you ask her to repeat what she
said?
S45: Yeah, like if she says to go to the Internet to search for something, I will go to the Internet but I won’t understand what she really says.

S47: At home, if I face a problem I ask my sister and if I face a problem in school, I ask the teacher.

D: D: Do you have any other comments about this subject?

S45: Why are we talking so much about computer?

D: Because I’m conducting a study that has to do with your attitudes toward the use of computers. This is my research. I’m not doing a research on the skeletal system, I’m doing a research on the use of computers as a tool for writing at your school.

S46: I would like to add my last opinion. I wish they could do a computer like you would command him to do everything, like turn to an amusement park or everything, like a magician.

Students (in unison): (laugh).

S43: Well I think we should use computers a lot because computers help us in a lot of things and you’ll explore a lot of things that you don’t know when you do the computer. Sometimes they use it for fun, sometimes for studying, sometimes just because you want to know this question, so you go to the Internet.

S42: The computer is good to use but not very much because if we stay a lot in front of the screen, our eyes begin to hurt us and we get bothered from it.

D: That’s why we should not overuse the computer.

S48: I don’t think we have to use the computer a lot and go in the Internet because sometimes when we go into the Internet and sometimes when you’re chatting and you chat with someone you don’t know.. yeah.. maybe it’s like someone you don’t know.

S38: Do you get confused while using the computer?

D: Yes, if I don’t know how to use it, yes, I get confused. But by trial and error, I can learn from my own mistakes.

S41: Using computers a lot isn’t that good for us because it does something to our eyes and to our brain.

S45 (In Arabic): Nshalla tenjahe bessaleme.

D: Thank you.

S44: Me I wish you get an A in your research.

D: Thank you.
Appendix I

**Date:** Monday, February 25th, 2008

**Interviewer:** Diana Fidaoui (D)
**Interviewee:** Rana Fawaz (R) [Pseudonym]

D: Good morning Miss Rana Fawaz.
R: Good morning.
D: Uh... I’d like to thank you first of all for giving me the opportunity to conduct this interview with you today.
R: You’re welcome.
D: Uh... Miss Rana, uh... What do you teach at CLS and how long have you been teaching?
R: Ok. This is my first year teaching. Um, I’m grade four homeroom teacher and ... this is my first year, yeah (nods).
D: Ok.. what are the degrees that you hold?
R: My background, um.. I’m currently finishing off my masters in anthropology. I studied economics, a bit of arts and gender studies. So, varied.
D: On average Miss Rana, how many times per week are the students allowed to practice writing on the computer?
R: Ok. We go down to IT lab once a week, so... that’s... um about 50.. it’s a 50 minute period and then we have a class.. we have a computer in class. Um.. We use it quite often. More.. some students choose to use it more than others. They.. they also go down to the library during recess and they use the computers... sometimes.
D: And.. uh.. how do they use the computer? For what purpose?
R: What purpose... Ok. In class it’s primarily for typing up a journal writing, stories, poems that they have written. They use it .. um.. on occasion, they use it for research and when we go down to the computer lab, it’s mainly used for research and for.. um.. kind of writing using Word, tables, and now they are going to start learning how to type with ten fingers.
D: My third question is the following: What kind of computer applications do your students use for writing?
R: Computer applications such as?
D: Programs.
R: Ok. Word.. such as.. like Word?
D: Uhuh.. (nods) any type of programs you allow them to use.
R: Ok. In IT lab, they use Inspiration, they use Word, they know how to construct tables on Word. They use.. what else do they use? That’s mainly it.
D: Do you know the names of the programs?
R: Inspiration...yeah.. and then there is Mavis Beacon for the typing which they’re beginning now.
D: What kind of writing activities do you engage your students in when using the computer?
R: Ok.. um.. you mean if they’re doing research and they’re writing? Ok. Usually.. in IT lab they do research on Encarta and Google and they don’t copy paste; But they take the information and then they type it out.. um.. on Word. And then they use Inspiration to.. to brainstorm ideas and to research ideas. If they have a main idea they need to branch out and um.. look at the elements.. of that idea. And in class, I encourage them to use the computer to write up their journals. Sometimes we.. I give them a journal entry and then.. somebody does it straight on the computer.. without doing a rough draft on their journals. So..

D: And how do you manage using one computer in the classroom?
R: Um.. it’s ok. Um.. they take turns.. I have a computer schedule at the beginning of the year.. which I’m not following actually because.. they.. because some want to use the computer more than others. So, depending on interests, depending on who asks me, depending on who is not.. um working.. is not writing.. I’d encourage them to use the computer.. because some people would work more, they’re more motivated to type than to.. than to actually write.

D: Ok. What are the reasons or motivational factors that encourage you to use computer technology when assigning written tasks for your students?
R: Ok. Well, first of all it looks pretty when you have something typed out. And.. and kids love it.. they love the idea of having a computer and they get to use it. It’s.. um.. it’s it’s more exciting for them than just to have pen and paper. So..

D: So this is the main concern for using the computer for using the computer as a writing tool… (interrupted by Rana)
R: Yeah.. and it’s a.. it’s a.. it’s a very important tool that they definitely need. So.. It’s a skill as well.. it’s a skill for the rest of their lives. So, it’s very essential.

D: Ok. How effective is computer technology in helping your students improve their writing skills? Justify your answer.
R: How?
D: How effective is computer technology in helping your students improve their writing skills?
R: How effective...
D: You can justify your answer by giving examples.
R: Ok. Well, I guess that for bad spellers, it’s a good tool which corrects their spelling and I hope they’re, but I also hope they’re learning from.. from the corrections and I hope it doesn’t make things simpler for them. Um.. and another, well.. another concern since I’ve mentioned a concern is handwriting. Those kids who have trouble with handwriting find it so much easier to use the computer. But I don’t… I mean.. I hope it’s not at the expense of their.. of.. learning.. of their handwriting.. of their motor skills. Um..

D: How effective is computer technology? I mean what are the advantages of computer technology in helping your students improve their writing skills? Why am I using computer technology in my classroom?
R: Yeah.. it’s a.. it’s a.. Well I think it’s a form of expression because every person has a different way of using.. using the skills or using the.. um.. what is available to their advantage.. uh without kind of differentiating handwriting. So I think that’s important. It’s neat. Um.. everybody can read it. It’s a place to.. it’s a great database for information.. for them to find information and for them to interact with other
things and other people. And to.. and to look up for.. to research. A lot of times in
class, I’d I’d I’d, they’d they’d mention a topic.. I’d be like what is your research at?
They can’t go to the library after school. So they go home, log on to the Internet, and
now most of them.. they’re.. they use the Internet quite frequently. So they all have
that skill. And they.. they do their research, print it out and bring it to school and they
present it the next day. So it makes their lives so simple. Um.. so I would say research
for infor.. as a database for.. of information. It’s very...

D: And do you usually teach them how to present their projects in the classroom in front
of their classmates? In other words, do you help them develop their presentation
skills?

R: Yeah! I mean.. it’s something which is in progress. I give them hints. But they go up
and they present first of all.

D: Um. Ok. Great!

R: Yeah!

D: Um.. Miss Rana.. What do you think the role that the Internet plays in helping
your students become better writers?

R: The Internet?

D: Yes. What’s the role of the Internet in helping your students become better writers?

R: I guess by reading information, by reading things, they’ll.. they can uh.. they get to
translate it and write it in their own words. But.. I wouldn’t say that Internet will help
them become better writers. I would say it helps them with efficiency and finding
information. But I don’t.. yeah..

D: Ok.. Can you describe your students’ attitudes or reactions when they write
using the computer? And can you provide specific examples?

R: Provide specific.. well I know that when I ask who wants to write their journal on the
computer, I get like 20 hands that shoot up. And they all come up to me and they say
I wanna use the computer, can I use the computer? And it’s something which is.. if
they’re not in the mood to write, it motivates them to write. Uh.. and especially for
the people who get distracted easily. When they’re here and they’re in front of the
screen, they’re focusing and they’re blocking everybody else out. Um.. so the people..
people.. my students who.. who are impatient, who get distracted, when I ask them to
to use the computer, they.. they.. .. their attitude changes and they become more
enthusiastic about their task and what they’re doing. They’ll become more
motivational.

D: Ok. How has the use of computers as a writing tool helped in developing your
student-student and student-teacher interpersonal relationships?

R: Ok. What do you mean by student-student?

D: Their interactions when they work in pairs or in groups.

R: Um.. Ah.. ok.

D: Their social relationships when they have a written assignment to accomplish on the
computer.

R: Ah.. Ok.. ok I’ll tell you!

D: And what about your relationship with your students when they accomplish the
written task on the computer

R: Ah.. ok. Um.. usually those students who.. who write something outstanding, I always
make them type it out on the computer because it has to be published. Um.. so that’s
an incentive for them to... to write. Ok, many work is going to be published. That’s the
student-teacher um.. relationship. The student-student, when we go down to IT lab,
it’s individual work. But in class, I’ve had them group up and do research on the
Internet and.. that went really well. They took their turns, they discussed the research
they were... they were (coughs) um exploring and I think it went really well, they
cooperated together and uh.. yeah.
D: And what about your relationship with your students?
R: Yeah .. I told you I I motivate them and I encourage them (nervously). And I
couraged them to use the computer a lot of times I...I’m thinking I’m doing
something else and that somebody, one of my students would come up to me and say
Miss can I use the computer?.. I’d be like of course.. of course you can. It’s not me
that initiates.. I don’t initiate it all the time. They initiate it more than me.
D: That’s because they are self-motivated by the use of such tool in the classroom.
R: Most of our students are self uh.. they’re.. they are self-starters, they initiate a lot of ..
a lot of things.
D: Ok. What type of difficulties have you experienced when you integrated the use
of computer technology and writing for your students?
R: Um Um (nods). Well I think um.. due the fact that there’s only one computer, it works
fine, but... I think that other students feel that they’re missing out when one person is
on the computer. So.. big, greater exposure, I guess. I don’t know..
D: How would you describe your role when you plan for your students to use the
computer as a writing tool?
R: As a writing tool. Well I told you that I created a computer schedule. Um.. but it didn’t
it didn’t work out because it varies that the time that people wanna use the computer
when they don’t wanna use the computer and depending on what they were writing as
well. So for me I usually pick up pieces and I ask them to write.. um.. to type them on
the computer.
D: Ok. How can you tell whether or not the use of computers is helping your
students develop their writing competency in terms of quality and quantity?
R: Um.. sometimes, most of the time when they write something on the computer I’ve
edited the work for them. So what they’re typing is edited work. So.. hopefully in
that.. with that.. through that process, they’re they’re noticing their mistakes and
they’re typing them out and when you’re typing you have to be meticulous and you
have to make sure you don’t have any spelling errors. But the computer also has that
specific spelling tool which.. which is automatic. Um.. and as I said earlier I’m not
sure how much that is helping them, if it’s making them lazier in terms of spelling,
they don’t have.. because.. because in.. in class when they don’t know how to spell a
word or don’t know what a word means, they go straight to the dictionary and they
find it. But on the spelling tool, in.. on.. in Word, it’s.. it’s too easy. It just, it just pops
up.
D: How do you assess their written work?
R: Their written work?
D: Yes. How do you assess it, how do you evaluate it?
R: Um.. depending on their sentence structure, fluency, um... ideas, and their journal,
most of it, work that is typed out in class comes from their personal journals. And
that’s their creative outlet. So, the work that is being, is being typed it’s it’s mainly
based on ideas which and I.. but I correct their grammar and their spelling, I correct it for them. But my main concern is the ideas that they’re coming up with.

D: The content.

R: (nods) The content.
D: Great and not the format.
R: Yeah. The content.
D: The content is much more important than the format.
R: The content is much more important and then.. some of them.. they’re all at different levels in terms of… language and… writing. But then, when they’re writing and typing it out they’re.. they’re just kind of they’re going a step.. further.
D: Ok. How did or do you continue to develop your computer skills?
R: How do I?
D: Yes.
R: Well by using.. by using the computer as much as possible to.. for research. I research so many things on Internet. It’s incredible! I use a lot of programs to.. do my design.. and signs and posters for class.
D: What are the programs that you use?
R: Illustrator, um.. Photoshop, I use them a lot! I use.. Um.. that’s mainly what I use to design my posters for my class.
D: Have you had the opportunity to attend computer literacy training sessions?
R: No.
D: Ok. So.. so this how you mainly continue developing your computer skills.
R: Uuhh.
D: Great. Is there any comment you’d like to add?
R: Any comment?!
D: Yes.
R: Um..well I guess IT it’s a.. it’s incredible. And um…. there is so many.. it’s a great.. it’s a great tool for creativity which is my.. kind of.. focus.
D: Thanks a lot.
R: No problem.
D: Miss Rana Fawaz, on behalf of my professors at LAU, I’d like to thank you for your support, time and cooperation.
R: No problem.
**Date:** Monday, February 25th, 2008

**Interviewer:** Diana Fidaoui (D)
**Interviewee:** Nour Malek (N) [Pseudonym]

D: Good morning Miss Nour.
N: (smiles) Good morning.
D: I’d like to thank you first of all for giving me the chance to conduct this interview today with you.
N: Ok.
D: Miss Nour, how long have you been teaching and what do you teach at CLS?
N: This is my 20th year in IC. And I was a math and science teacher in Grade IV and sometimes Grade V and 8eme in French sections. And um.. this is my 5th year as a classroom teacher. So I’ve been teaching all subjects in my class.
D: On average, how many times per week are the students allowed to practice writing on the computer?
N: Um (confused).. we have our.. First of all, we have our computer uh.. scheduled period where all the students will get the chance to work on their own computer in the computer lab. And then in the classroom, we have a schedule and according to this schedule the students.. and according to the task, the students are assigned uh.. uh.. a task where they all need to take turns throughout the week so everybody would get a chance to use the computer. Now, on.. uh there one more way for them to use the computer and that is when we are um.. when we have um.. a research and we need extra materials so they would take turns also uh.. and to.. Google.. to surf the Internet and to get some extra information. Ok?
D: Ok. Question number 3: What kind of computer applications do your students use for writing?
N: Uh.. first of all, when they’re just writing simple paragraphs, they use Word. And.. but they also use Inspiration program, they use.. um.. Another program in the computer lab, um.. Inspiration.. and (in Arabic) la2 (She tries to remember).. and they draw charts, ok, and they draw charts.. they uh.. draw the K-W-L charts that is at the beginning of the planner. They write the K, what they know, and then they write their questions in the W, and then they print their uh.. uh.. questions so we.. stay focused and we try to answer them and then later on, once learning is taking place, after learning is taking place, they write what they’ve learnt in the L chart. L part of the chart.
D: Great. What kind of writing activities do you engage your students in when using the computer?
N: It could be.. either writing a paragraph or writing uh.. points or questions. Or, they need to.. when they’re conducting a research, they read.. it’s not really a writing exerc.. it’s it’s the reading and then they would write uh.. for the .. (In Arabic) ya3ne what they’ve learnt. It’s more paraphrasing.. (In Arabic) ya3ne they read, they uh.. put it in their own words and then write it in their own words. That’s paraphrasing.
D: Ok. What are the reasons or motivational factors that encourage you to use computer technology when assigning written tasks for your students?
N: The students are motivated to work on the computer because it’s uh... it’s... it is... they simply like it because it different from the paper and pencil and usually they draw, they like to illustrate... so when they use, that’s one way when they’re using paper and pencil. So when they’re using the computer, they also get to insert images, they use uh... clip art, (In Arabic) ya3ne for them to work on mainly publishing their work. Ok?

D: Ok. How effective is computer technology in helping your students improve their writing skills? And would you please justify your answer.

N: (In Arabic) halla2, when they’re writing definitely, they can uh... it is effective because they can see where they have their spelling mistakes because it marks it. Um.. they’re motivated to write, though they’re a bit slow and uh... in typing (In Arabic) ya3ne and uh... definitely when they’re conducting their research, they’re motivated to read more, which leads reading, reading more and more would lead eventually to uh... some progress in writing skills. So... because read... in writing, is only... the... (In Arabic) ya3ne it comes after reading a lot you get to show progress in writing. So when you read, and they’re more interested in reading, uh... uh... on the Internet than reading just in books. (In Arabic) ya3ne ya3ne it’s a, it’s one way of learning. So, the more you expose them, the better it is.

D: Yes. Miss Nour, what kind of research activities do you usually engage your students in?

N: We had the research... first of all on endangered animals, on their habitat uh... and the reasons why they’re endangered. Secondly on the human body, uh... body systems and uh... sometimes, we just... I show them how I can get some more homework uh... if some students need to get extra practice so I would show them some websites where they can uh... use the uh... get extra homework. Ok?

D: What do you think the role that the Internet plays in helping your students become better writers?

N: This is it... 2ennno (in Arabic) when they’re reading, uh... that motivates them... in ye3ne (in Arabic) they get more ideas. But we need, we need to teach them that they shouldn’t, they should always cite the uh... um... write down the site that they’re using so there’s no plagiarism, so that so they’re aware of it. And um... definitely when they want... if they want to get more homework or they want to read more about a certain topic, so they... they’re motivated, they carry this home and they... continue their work at home. So... uh, it doesn’t mean that homework is just the assigned that I would give them, sometimes they would uh... volunteer to get extra material from home so... its’ a good connection also between home and school.

D: Do you believe that the Internet is playing a role in helping your students develop their writing skills?

N: Halla2 (in Arabic) basically it’s in reading, through reading. It’s through reading. They read more, they eventually they become better writers. But as writing, writing practices, they write in the computer lab, they write in class and sometimes I take them... down to the computer lab when it’s free so everybody gets a chance to... uh type and print their work. Uh... though it’s not the emphasis on “the”) scheduled period but it’s not my period and the computer lab is free, so I take them down for an extra hour or an extra two hours every other week.

D: Ok. Can you describe your students’ attitudes or reactions when they write using the computer? And can you provide specific examples?
N: (in Arabic) Halla2 definitely when they’re writing on the computer, the students um... uh work independently. That is in class, we work a lot, they work a lot in pairs and in small groups. And... they also write in pairs and sometimes, ya3ne (in Arabic) many times we brainstorm ideas together. But then when they get to writing what they’ve learnt, what they want to learn or when they’re doing a web or when they’re uh... just printing, publishing their work, they do it on their own. So it is a chance for them just to work on their own and they’re motivated to do that.

D: Are they always motivated?

N: Yes they are.

D: How has the use of computers as a writing tool helped in developing your student-student and student-teacher interpersonal relationships?

N: (She kept silent)

D: What about the relationship of the students when they have an assignment to complete on the computer or to work in pairs and what about your relationship with your students when you immerse them in computer-based learning activities?

N: Definitely they... since they’re more focused, they are more focused. So... they’re more independent. And when they’re working in pairs, they... um... they’re more focused, (in Arabic) ya3ne the focus it’s... it’s like a third element that is there and (in Arabic) ya3ne when they’re working in pairs I can see that when they’re researching, conducting research on... lately it was one of the animals, the endangered animals, the group that was working on the computer, I had two students working there. They finished, they’ve read, they uh... got the main information um... and uh... they finished their work on time and they were very cooperative. Though they were a boy and a girl that never worked together before. But there was the third element and their focus was there and it was good. Their work was uh...

D: And what about your relationship with your students? How would you describe your role?

N: Since they are uh... more focused and their focus on their work, then I get the chance to go around the class and to see them all working and to check their work, it’s easier for me. It’s easier for me as a teacher. (in Arabic) Ye3ne when they’re writing uh... in class and they are, you know the setup there uh... the tables are in groups of five, six, sometimes eight, uh... then to go around and see them, they have the uh... tendency to... not to stay focused on their work but to talk to a neighbor. So when they’re working on the computer, this element is uh... focus, it draws their attention and they’re focused. Though they’re not, they’re slow and now they’re learning uh... uh... the skill of Mavis Beacon, (in Arabic) ye3ne using the ten fingers and they don’t really like it a lot, they’d rather use only two fingers, (in Arabic) bass 2enno they’re uh... they’re more focused.

D: They’re more focused. What type of difficulties have you experienced when you integrated the use of computer technology and writing for your students?

N: (in Arabic) Halla2 the difficulties are (in Arabic) 2enno sometimes when... they write and they work, they don’t really save their work properly. So to find their work again, to go back to the file and to save their work. It’s a skill that has to be taught and sometimes you need to teach it on a one-to-one basis but it’s fine. But uh... in writing, it’s uh... there’s no really... (in Arabic) ya3ne you teach them, you tell them, (in
Arabic) ya3ne you explain the task and then they start writing. Uh.. the thing is (in Arabic) 2enno in my class I have one computer and for them to get the chance to get to that computer and to work, it’s really uh.. you need to chan.. (in Arabic) ya3ne that person who’s working on the computer he needs to work.. when everybody else is busy doing something else, you need to change the plan for the day, and these are difficulties. (in Arabic) 2enno when you know that you’re working on lets say um.. uh.. um (guessing) some answering reading comprehension questions and there’s a student on the computer doing something else, then you have to manage (in Arabic) 2enno when he goes back he has to work this and then the other one.. so it’s all management skills?! More management skills.

D: How would you describe your role when you plan for your students to use the computer as a writing tool?

N: My role?

D: Yeah. How would you describe your role when you plan for your students computer-based writing activities?

N: (in Arabic) Ye3ne.. uh.. (in Arabic) halla2 if we need to teach them something that’s new like using the uh.. uh.. Inspiration program or drawing a chart or whatever, we always uh.. I always have the computer teacher with me because there are times when.. sometimes I forget to tell them because I take it for granted I know how to do it so I forget to tell them the.. every single step. It’s not a lesson in Language or in Math where I know every student’s needs, I need to tell them to do this and then do that. Now in the one computer, when we’re starting a new program on the computer, the computer teacher will tell them how to do that and uh.. then you get a chance to go um.. so we need to plan (in Arabic) 2enno what do we need to do for this planner, (in Arabic) 2enno what’s the uh.. final product. So we plan it ahead of time and this takes a lot of planning.

D: Ok. How can you tell whether or not the use of computers is helping your students develop their writing competency in terms of quality and quantity?

N: (in Arabic) Halla2 in terms of quality, definitely the um.. we’re in Grade IV, and this is their fourth year in writing, just their fourth year. (in Arabic) Ye3ne they’re beginners. So um.. the.. the more you expose them to writing, the better it is. (in Arabic) Halla2 how frequent that is depending on what we’re doing, (in Arabic) 2enno depending on what we’re doing. It’s not on uh.. everyday that they’re using the computer, they’re taking turns using the computer, a child doesn’t get a chance to use the computer everyday. And uh.. how do I assess uh.. it’s developing their writing competence… in.. in quantity… (confused)

D: How do you assess their written work?

N: (in Arabic) 2eh 2eh I have to assess the written work, in uh.. (in Arabic) 2enno you have your assessment list.

D: Do you focus more on the content rather than the format?

N: It’s the writing, what do you expect to write. You want to have a topic sentence, you want to have a.. a paragraph that is.. has a topic sentence, six sentences and a closure and uh.. basically um.. they know that these are the expectations. (in Arabic) Halla2 to.. it helps mainly (in Arabic) 2enno... it is one more chance for them to write. They write everyday or every other day in their personal journal but to get to write on the computer, it’s a different task. It’s uh.. it’s either um.. either writing, as I said (in
Arabic) ya3ne it’s a final product for.. uh.. that’s directly related to the.. uh... to the planner that we’re studying and eventually.. and basically what they really like to do.. uh.. we expect them all to.. sometimes they publish their work that is overnight it wasn’t class work. (in Arabic) Bass 2enno they.. wrote in class uh.. very interesting uh.. uh about very interesting topic, and then we shared them and then I told them at home, like you have about out of twenty six I had twenty four of them who published their work on the computer, and it was really interesting. They used uh.. pictures, they used different font, different colors, so and basically when they uh.. use the computer, I go over their work and I see that they added some.. they added some words to it, some vocab words (in Arabic) w heik. I think this a good exercise.

D: (nods) Uuhh! Great! How did or do you continue to develop your computer skills?
N: (in Arabic) Halla2 uh...we have our workshops. We had our workshops years back when we started using the computer, and we had regular workshops starting from Word to Excel program to different programs. Lately we had Inspiration or two years ago (in Arabic) ye3ne that was.. I think two years ago, we had our uh.. or last year, it was.. when we had our workshop, but it’s uh.. we have basically (in Arabic) 2enno most importantly is that we have access to the computer and to the computer lab. So the more, it’s through practice. The more you practice, (in Arabic) ye2ne you can learn.. we we they taught us how to use this program, if you don’t use it, then you loose it.

D: Is there any comment you would like to add?
N: It would be ideal if I would have a computer for every student in class. I know that in schools in Bahrain, in Dubai, in the Arab world, they have a computer per student in every single classroom. (in Arabic) Halla2 it would be ideal so that, (in Arabic) la2anno you know uh.. when I do my homework and I get to uh.. get extra uh.. information or extra work for the students on the Internet I find some very interesting interactive sites. And.. ok.. I.. I get.. it’s not just for writing, it’s not just for writing. For example, in science, the human body you have to construct it, put the organs, put it back etc. For language, you have webs and you have to fill in the blank. You have so many things and you can have your subscription in weekly magazines and they send me every week and I’m getting them. So.. the first thing I do is that I get into my class, I get to download it, but then it’s on my account so the students have to use my account in order to.. and they don’t all get a chance to use it. (in Arabic) Halla2 it would be ideal to have for every student his computer to have uh.. him working.. or lets start with having five computers per class. So you will have a center, a real center where students.. then, will get a chance to use the computer everyday. That is if I have five periods, a period, per period I have five students, all my students toward the end of the day would have the chance to use the computer. Ok? That would be ideal.

D: Ok.
N: Thank you.
D: On behalf of my professors at LAU, I’d like to thank you, Miss Nour, for your time, support, and cooperation.
N: Ok.
Interviewer: Diana Fidaoui (D)
Interviewee: Rima Damaj (R) [Pseudonym]

D: Good morning Miss Rima, I’d like to thank you for giving me the chance to conduct this interview today with you. Miss Rima, what do you teach at CLS and how long have you been teaching?
R: I’ve been teaching for twenty years now. Uh, at the moment teaching Grade IV, we are PYP teachers.
D: Ok, uh.. On average, how many times per week are the students allowed to practice writing on the computer?
R: Usually they work on the computer an average of twice a week.
D: What kind of computer applications do your students use for writing?
R: They have different variations.. different applications: Words, Inspiration uh… Print Artist (in Arabic) w Paint.
D: What kind of writing activities do you engage your students in when using the computer?
R: If it’s words, they will be typing their PJ (personal journal) entries, if it’s Inspiration, they would be webbing their work.
D: Ok. Uh… What are the reasons or motivational factors that encourage you to use computer technology when assigning written tasks for your students?
R: The fact that it’s in colors, that encourages the students, the fact that they can draw, it’s not all text, that’s also encouraging the students and the fact that it’s their own input.
D: Ok. Uh.. How effective is computer technology in helping your students improve their writing skills? And would you please justify your answer.
R: I have a problem with this question. They certainly use the computer for learning, but to improve their writing skill, I’m not sure how much does it improve their writing skills because they could always use the spell-check, so… in this way they help spelling, and if they have sentence structure mistakes, the computer would tell them, will identify the mistake but not give the correct answers, so I’m not sure if at the elementary level if they could…really work on their writing skill per say.
D: What do you think the role that the Internet plays in helping your students become better writers?
R: Uh.. using the Internet to get information and then they know they cannot copy paste, they need to rephrase the information in their own words.
D: Do you teach them how to rephrase the information?
R: It’s a skill that we learn throughout the year so they have to apply it when they are researching.
D: Ok. Do you think that the Internet in specific is helping them develop their writing skills?
R: Only when they are rephrasing the information, but searching for information has nothing to do with their writing skills.
D: So it has to do with their...
R: Learning, getting more information, seeing different resources.
D: Alright. Can you describe your students’ attitudes or reactions when they write using the computer? And would you provide specific examples?
R: In general, they are happy (in Arabic) la2anno it’s their own input, it’s their own effort without having a boss over their head, so they are their own bosses, so they like that.
D: And do you have any students who do not like the computer-based writing experience?
R: No, more or less they all like it.
D: The majority… (interrupted)
R: The majority like it. Some excel, some do well, some learn, some progress, some improve, you will have some who really show no progress and no connection with the computer and they will not admit it though. They will be very passive, passive learners.
D: Ok. How has the use of computers as a writing tool helped in developing your student-student and student-teacher interpersonal relationships?
R: You will be surprised that students, kids themselves are are better teachers than we are, so they can teach themselves using the computer with the computer technology, and the fact that they can help us as well. So they they see us in a more realistic image.. of the teacher.
D: Ok. What type of difficulties have you experienced when you integrated the use of computer technology and writing for your students?
R: First of all they need to know how to use the computer.. itself. So that.. that assuming it’s at the upper level, so if you try this this study on a lower level you will have a lot of difficulties and you don’t know how to use the computer, to start with. The writing skills as well, they need to know what’s a sentence, how to write a sentence and a paragraph. So again, it has to be at the upper level. So if you have this questionnaire or this study lower levels, um.. you’ll have completely different answers.
D: Ok. Uh.. How would you describe your role when you plan for your students to use the computer as a writing tool?
R: A facilitator.
D: Only?
R: Absolutely, I will be facilitating things, they will have their own input, it’s more of an interactive learning between them and the computer, myself. I’m more a facilitator, I learn from them, they learn.. we learn from the computer. Its’ definitely not a 100% guided activity. It’s their own pure input. It’s their own creativity.
D: How can you tell whether or not the use of computers is helping your students develop their writing competency in terms of quality and quantity?
R: I cannot tell at this moment, it’s still early. This is Grade IV, so probably we should have, probably after two years, probably the middle school would be able to answer this question after using the computer in the elementary school, Grade IV, Grade V and probably end of Grade V they would have more.. a solid answer. A justifiable answer.
D: Rima, how do you usually evaluate your students’ (interrupted)... written work?
R: Content. I evaluate their content. The content of the material. I don’t take their language mechanics. So I go for content, I go for ideas, I go then for the IT, the form, the design, but I go for the content, if they have the idea.
D: Do you set your own criteria?
R: With the kids.
D: What do you mean by “with the kids”?
R: They know my criteria (she stresses on “know”). It’s not a surprise criteria. They
know I’m looking for the ideas, and when I’m looking for mechanics, I tell them
you’ll have a grade for content and a grade for mechanics. So they can.. they know
what to expect. And they have their grade and they understand. It’s not something
new to them.. they know exactly what goes on. (in Arabic) Nehna shbat halla2.
D: How did or do you continue to develop your computer skills?
R: Myself?
D: Yeah, as a professional.
R: Trial and error. Trial and error it started. And then workshops and then more trial and
error and then more workshops.
D: Ok. Uh.. Is there any comment you would like to add?
R: Good luck. And please do let us know your results. I would love that.
D: Sure. On behalf of my professors at LAU, I’d like to thank you Miss Rima Damaj..
(interrupted)
R: And And.. if we could have a brief summary on the literature review.
D: Sure, sure I will.
R: That.. That would be helpful for us to provide as a support.
D: Yes. Ok. Thanks a lot.
R: Thank you. Good luck.
**Interviewer:** Diana Fidaouii (D)  
**Interviewee:** Juheina Hamad (J) [Pseudonym]  

**Date:** Monday, February 25\(^{th}\), 2008

D: Good morning Miss Juheina.  
J: Good morning.  
D: I’d like to thank you for giving me the opportunity to conduct this interview with you today. Miss Juheina, **how long have you been teaching at CLS and what do you teach?**  
J: I’ve been teaching for nineteen years. I was teaching computer. And.. end of last year, I started teaching Arabic as well.  
D: Ok. **On average, how many times per week are the students allowed to practice writing on the computer?**  
J: They come to the computer room once a week. (in Arabic) Halla2 depends on what the.. the classroom teacher is doing, they might practice the the writing yes or no. For instance Grade IV have been uh.. Grade IV students are practicing writing uh.. it’s the third time for instance. It depends on the teacher’s objective.  
D: Ok.  
J: There’s no, there’s no rule set for everyone.  
D: **What kind of computer applications do your students use for writing?**  
J: Ok. As an application for brainstorming, we use Inspiration. It’s a web organizer. Uh, then we can use electronic encyclopedias to retrieve, to read, retrieved information. Then they will be writing this information in uh.. Microsoft Word.. using their own word, their own language.  
D: Ok. **What kind of writing activities do you engage your students in when using the computer?**  
J: Usually the English teacher and I will coordinate on a regular basis to set the computer-based assignment the students need to achieve.  
D: Ok. Uh.. **What are the reasons or motivational factors that encourage you to use computer technology when assigning written tasks for your students?**  
J: For instance students with a bad handwriting uh.. really like to work using the computer. They are motivated to use it. For instance, it helps to.. as well locate their mistakes and to correct them. Uh.. it will help them decorate their work, to publish it, and to hang it in the class and in the hallways, which gives them a.. really.. a nice motive for them.  
D: Ok. **How effective is computer technology in helping your students improve their writing skills? And would you please justify your answer.**  
J: It will help by deleting or adding to their paragraph, words and expressions easily. It will help them open at the same time while they’re writing, to open a dictionary next to them on the screen in another window to search for the meaning or to another synonym in order to enrich their sentences.  
D: Great. **What do you think the role that the Internet plays in helping your students become better writers?**  
J: The Internet has an important role in providing students with ideas. They need to paraphrase using their own language in order to avoid plagiarism.
D: Ok. On behalf of my professors at LAU, I’d like to thank you, Miss Juheina Hamad, for your time, support, and cooperation.
J: Thank you so much Miss Diana.
Appendix J

Samples of students’ computer-based written tasks
How We Express Ourselves

My kids and wife are gonna love this!!!
Once a ghost of a man rose out of the grave. He came to the person who killed him and the ghost killed him.

Amine Abs 4A
How we Express OurSelves
Diffrent interpretations

Task: choose a picture and write a caption about it.

caption 1: enjoy nature
caption 2: go listen to the water fall
How we Express OurSelves
Diffrent interpretations

Task: choose a picture and write a caption about it.

caption: enjoy nature

<table>
<thead>
<tr>
<th>go</th>
<th>go</th>
</tr>
</thead>
<tbody>
<tr>
<td>ento</td>
<td>ento</td>
</tr>
<tr>
<td>waterfall</td>
<td>waterfall</td>
</tr>
</tbody>
</table>
How We Express Our selves

Oh my God there is a big tsunami coming I am very scared!

Ramzi
Harake 4C
How We Express Our Selves

Oh my God this is going to be a bumpy ride ahead of us!!! I am so scared!!!!

aaaaahhhhhhh

Ahmad Khatib 4c
Dear mama,

I would like to invite you to How We Express Ourselves. Celebration about different interpretations. And these interpretations lead to conflicts. I hope you that you are gonna learn about what we are gonna show you !!!!

Date: Thursday 10 April 2008
Time: 9:30
Place: music Room #304

Love,
Maya kawas
ZiZ Show

TANNER CELEBRATION 'How We Express Ourselves'

TIME: 12:00 pm

DATE: Thursday, April 17, 2009

PLACE: auditorium

Please come and enjoy our performance.

Love, Nino
Dear mom,

I would like to invite you to our How We Express Ourselves celebration.

Date: Thursday, April 10, 2008
Time: 9:30
Place: Music room # 304
Hope you could make it

sincerely yours,
your daughter Fatima
How The World Works
Sound

- Anything that makes sound could be a musical instrument. But we usually think of musical instruments as objects specially created to produce the sounds of the music we know—folk, rock, classical, and all other types.
- Musical instruments range from simple to complex.
How the world works

Sound

What is sound?

• Sound can be loud or quiet. Loudness is measured in units called decibels.

• Many animals use their ears to pick up sound waves.

• When something vibrates very fast, it makes a high sound.
• Sounds are made when something moves or vibrates.
• Sounds are made when something moves or vibrates.
• A jet airplane makes a very loud sound of 110 decibels.

Microsoft © Encarta © 2008. © 1993-2007 Microsoft Corporation. All rights reserved.
How the world works

|----------|----------|---------|-------------------|

1. Sound
A. Definition: something That Can Be Heard
B. Sentence: My dad heard a sound from the other building.

1. Noise
A. Definition: A loud, surprising, irritating and unwanted sound
B. Sentence: I heard some very loud noise then I jumped of my bed!

1. Mood
A. Definition: Somebody’s state of mind
B. Sentence: Last week my dad had a very angry mood

1. Noise Pollution:
A. Definition: irritating, distracting, physically dangerous noise to which people are exposed in their environment and over which they usually have no control
B. Sentence: In my city almost all the streets have noise pollution!
The Play / Vocab Words

One day Red was making a script and she wanted it to be funny. (I could make the best play) she told herself triumphantly. She told all the friends if they wanted to join her play. They were all acceptable, except wolf. They tried everything for wolf to change his mind. They couldn’t try anything but tricking him. Everyone thought it was injustice that wolf does not want to join them. (It’s not fair, wolf is so self centered) red said desperately. (Maybe wolf is trying to trick us). Red was repentant to wolf. So under all these circumstances wolf finally agreed to do the script. So they did the play and it was hilarious and the best.
Red Writing Hood
The Play

In school, the teacher gave us a script that we had to memorize. I desperately wanted to get the lead act, but the teacher assigned it to someone else which was an injustice so I got another acceptable part. At the beginning, I was sad but then I became happy because I didn't have to get repentant in my role. I discarded some lines, but I memorized the others. One week later, I saw an advertisement of this play on T.V. so I asked my mother if I could watch it before presenting my play at school. According to the circumstances, my mom didn't let me watch it, so I became miserable. After I finished practicing my part, my classmates and I presented it in front of our parents. They all clapped triumphantly because they enjoyed it a lot!!!