E-MAIL AND LEARNING TO WRITE IN FRENCH: THE INFLUENCE OF E-MAIL ON THE ATTITUDES AND WRITING DEVELOPMENT OF GRADE 2/3 EARLY FRENCH IMMERSION STUDENTS

by

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A thesis submitted in conformity with the requirements for the degree of Master of Arts
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Abstract:

This action-research study analyses the influence of French telecommunications activities on the attitudes and writing development of Grade 2/3 early French immersion students. Nine Grade 2 students and nine Grade 3 students taught by the teacher-researcher participated as the experimental group for the study. These students pursued authentic e-mail exchanges with various francophone audiences, over a period of 17 weeks. Fourteen Grade 2 and 18 Grade 3 students from two different classes in the same program also participated as control groups for the study. All the students completed a letter-writing assignment at the beginning and at the end of the research. Pre- and post-study attitude questionnaires were also administered to all participants to determine changes in their attitudes towards writing. This study provides evidence that e-mail activities (telecommunication) integrated in a process writing context, where collaboration is valued, can positively impact on the attitude as well as on the writing skills development of Grade 2/3 French immersion students.
Acknowledgements

This research project has been a real learning experience for me as a teacher and as a researcher. In addition to learning to develop, complete, analyze and report a research project, I have also gained precious information to bring back into my classroom and a willingness to continue to develop further investigations. I believe that is how we describe life-long-learning.

I would like to thank Dr. Antoinette Gagné for accepting to become my very first research mentor. I am most grateful for her patient listening as well as her humble guidance as she helped me to develop this project from initial questioning to a published reality. Her positive support and feedback were always greatly appreciated. I would also like to thank Dr. Miles Turnbull for being a committee member and offering insight and support.

Children are our future. Teach them well and let them lead the way! This thesis is dedicated to all my students, past, present and future. A special thank you to the students who participated in this study. By believing in ourselves and in each other, we opened new doors to the challenges ahead. Let’s always continue to do our best, respect each other and never forget to smile 😊! This research is also dedicated to all my fellow language educators around the world. Let’s always continue to question, investigate, communicate and learn together. I would like to extend my sincere thanks to all my colleagues and friends, especially Karen for her on-going cooperation, Rhonda for helping me organize and understand my data, to Pamela and Claudia for helping me revise and raise my own second language writing to an academic level. A special thank you also to Mariel, a very caring, dedicated and supportive colleague and friend.

I would also like to thank my parents for instilling in me the values of setting high goals and believing in myself. Thank you to my sister Nancy, technology-wizard and mentor, for your interest and pride in my work and to my brother Frank, for constantly demonstrating that hard work always pays off. Finally, warm thanks to Jason – Your interest, support, love and belief in my abilities are ultimately what inspired me to complete this project.
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Introduction

As we enter the new millennium, we enter a period of new and dramatic developments in technology and learning. Educators are increasingly faced with the challenges of dealing with and understanding complex issues in an effort to provide the best possible education for their students.

In my own school, when I look around, I see more and more technological equipment being "placed" into classrooms and wonder if teachers are prepared to integrate technology into their classrooms. It is a tall order, and to do so effectively teachers need to address the following questions: Does the technology make a difference in the classroom? What types of learners will benefit most from the technology (i.e., age, language, etc.)? Will it affect how and what students learn? Will students' motivation or attitudes towards learning be affected? How do educators integrate technology into their already busy teaching programs?

Now imagine the added complexity when these questions are applied to a second language environment such as French immersion where students are learning to write in a language they are still learning to speak. What can technology bring to French immersion teachers, their students and classrooms? With an increasing focus on developing global learners, it appears that technology networks can effectively create authentic French language experiences right in the classroom.
This thesis study attempts to discover, evaluate and offer insight regarding the influence of e-mail technology on the attitudes towards writing and on the writing skill development of Grade 2/3 French immersion students. The following questions are considered:

1) How does incorporating e-mail technology into the writing program impact on the attitudes of Grade 2/3 early French immersion students?

2) How does incorporating e-mail technology into process writing impact the development of writing skills of Grade 2/3 early French immersion students?

In a second language environment such as French immersion many students do not have regular exposure to authentic French language interactions or experiences outside of the classroom. The result of this lack of exposure is twofold: (1) there is less opportunity to enhance students' communication skills; and (2) students may experience feelings of isolation or a sense they are in an artificial setting.

In this thesis, I comment on some current issues supporting the integration of a variety of information technologies into a second language learning environment. More specifically, I discuss the integration of e-mail telecommunications into Grade 2/3 French immersion classrooms and how this brings French audiences into these classrooms. I attempt to discover, evaluate and offer insight regarding the influence of e-mail technology on the attitudes of Grade 2/3 early French immersion students and then discuss how process writing impacts the development of their writing skills.
Chapter 1

Empirical Studies and Related Theories

1.1 Introduction

After careful consideration of the literature, I hope to:

- Present research related to second language writing that combines the process writing approach and the influence of gender and grade on the implementation and outcome of this philosophy;

- Highlight research outcomes related to the integration of technology into various writing programs, with attention given to writing quality, phases of process writing, and instructional teaching programs (including a focus on keyboarding instruction);

- Present various research outcomes regarding technology, motivation to write, and attitudes towards writing;

- Review published studies related to technology and collaboration in writing and computer writing; and

- Suggest how primary level French immersion teachers can successfully integrate technology into their writing programs.


1.2 Second Language and the Process Approach to Writing

Several researchers have studied approaches to writing in a second language. According to Silva (1990) one of the approaches applicable to second language learners is the "process writing approach." This approach consists of three stages: pre-writing, writing and post-writing. Students are responsible for taking ownership for their writing by making decisions about topic, purpose and audience; the teacher's role is to act as facilitator. The primary focus of the student writing is on purpose, ideas, content, and audience in the pre-writing and writing stage. Grammar and spelling become an important element in the post-writing stage. In process writing, Hudelson (1989) suggests that priority should be given to encouraging and establishing fluency and willingness to write. She adds that focusing on what is wrong may cause second language writers to become more insecure and unwilling to take risks.

If the process approach facilitates writing, and results in meaningful experiences for writers, one may wonder whether it is possible to transfer the same experiences to the writers' attitudes.

Monteith (1991) compared writing scores and attitudes of Grade 2 students in traditional versus process writing classrooms. He found that more students in the process writing program considered themselves writers, placed greater emphasis on thinking and learning from mistakes, and recognized the importance of communicating through their writing. He concluded by stating that process-writing programs facilitate writing and result in meaningful, positive experiences for writers. This theory is corroborated by Stuhlmann (1996), Calkins (1991), Graves (1983) and Atwell (1987). Each researched the impact of various writing approaches and all support the authenticity of process writing in a second language program.
Knudson (1995) also researched the relationship between writing achievement and attitudes towards writing. In this study, 430 first to sixth grade students completed attitude questionnaires and writing samples.

Results of the analysis of students' writing competence and their attitudes towards writing support findings of prior research, namely, that grade level, gender and attitudes towards writing are very good predictors of writing achievement. (p. 90)

Knudson found that from Grades 2-6, boys scored significantly lower than girls. Although her study was completed with Anglophone (first language) participants, one may wonder if these results would be applicable in a second language context.

In the following section, I present additional research studies that relate more specifically to the process approach and writing development of students in French immersion programs.

1.3 French Immersion and the Writing Process

Several researchers (Silva, 1990; Hudelson, 1989; Montheith, 1991) have highlighted the positive impact of the process approach on writing development. Based on the variety of language learning contexts, one may question whether the results of process writing on text quality and attitudes can be transferable from a first language (L1) to a second language (L2) setting, and more specifically, to French immersion language settings.

In a recent study, Dobkin-Kurtz (1998) analyzed the impact of process writing strategies on the attitudes of Grade 1 early French immersion students. Her students were presented with meaningful letter-writing activities for a variety of audiences and guided through various steps of
the process approach. Since significant gains were noted in student writing skills as well as their attitudes, the results of her study support the implementation of process writing strategies.

Considering the numerous similarities between Dobkin-Kurtz's context and the present study, one might wonder if similar results would be obtained if process writing were implemented in a Grade 2/3 program. Would my students react as positively to this approach? Would Grade 2/3 students achieve significantly higher results on their writing task? In my research project, the process writing philosophy will be implemented and integrated in the program... Will it have any influence on the learning and attitude outcomes? Will gender and grade difference impact on the writing results?

1.4 Technology and Writing

In this section, I discuss how telecommunication technology and computers can be effective process writing tools for educators.

Knowing that the process writing approach is based on purposeful writing and communication, teachers are responsible for providing their students with authentic and meaningful contexts for writing. Tremendous technological changes are evolving around us. Computers are becoming less expensive, more accessible, and easier to use. Offering these tools to students creates the potential to save enormous amounts of time and energy for skilled users and novices alike.

One of the most recent developments in computer technology is "easy access" to telecommunication networks. Using computer networks, teachers can now create meaningful writing opportunities for their students without leaving the classroom. Computer networks offer a new and much wider variety of situations for communication. As Robert Hoffman (1996)
indicated, network communication can put language learners in contact with a wider variety of learning resources, as well as an increasing number of opportunities for intercultural collaboration. This could dramatically improve global communications. Networks can actually connect language learners and teachers and therefore empower them by expanding and deepening their opportunities for communication in a range of contexts and make possible the exchange of ideas on a scale far beyond that imaginable in the traditional classroom.

Edinger (1994), a teacher and researcher in New York, designed a program to research the influence of word processing on the attitudes and writing skills of her Grade 4 students. Edinger provided one tablet machine to each pair of students in her class, to be used during writing workshops. The machines were simple, inexpensive, portable, and were equipped with a word processor and spell checker. Edinger suggests that through these communication projects, students gained an appreciation of writing. She indicated that word processing can further empower child writers, eliminating the physical frustration of writing and enabling more children to express their ideas in the written form. The outcome of the project supports the use of technology in the classroom.

Stuhlmann and Taylor (1998) also investigated the influence of computer communication on writing output. They report:

Students gained an appreciation of writing. When writing for real audiences, students became more aware of using writing as a form of communication. As they explored the complexities of language, they increased their desire to be understood. As a result, students became critical readers and writers as they
synthesized information, questioned what they didn’t understand, and sought additional information. (p.81)

In real-writing contexts, telecommunications becomes an act of communication rather than a demonstration of skills. Is it possible that students write more enthusiastically and creatively as a result of having more opportunity to construct “real” reading and writing?

In Stuhlmans and Taylor’s study, learners participated in discussions, openly expressed their desire to further develop verbal communication skills, and cared about improving the quality of their writing. Although enthusiasm improved, it remains questionable whether or not computer technology has the potential to help language learners develop their writing skills.

Larter, Braganca and Rukavina (1987) reported that elementary school children, particularly those in the primary grades, who were provided with microcomputers increased and improved their writing. Similarly, Drexler, Harvey and Kell (1990) found their computer integration project had a positive impact on students' writing: longer and more complex stories, improved spelling, larger vocabulary, print awareness (concept of word), and in the case of older children, the use of editing techniques and revisions. Drexler et al. also found their project contributed to the development of important computer competencies. Leu & Kinser (1995) also presented information supporting the positive impact of computers into the language programme. They reported that integrated learning experiences could effectively increase students' reading comprehension because young writers are interested in reading their work and the work of their peers to see how ideas are presented.
Communicating over networks provides new opportunities to the language learning field. Students developing their writing skills need feedback in order to continue learning and improving. As Graves (1983) suggests, by writing to peers, parents and teachers first, students will receive feedback and have an opportunity to hone their skills before communicating with the global community. MacArthur (1988) suggests a similar strategy. After practicing with family and friends, he suggests that students write to less familiar audiences. He claims that written exchanges with "strangers" are very helpful: writing differs from conversation; and the audience is removed in time, space and context.

Computers are relatively new tools in classrooms and numerous teachers are still at the initial learning stage. They are trying to understand the full potential of technology, thinking of effective ways to integrate these developing technologies into their program. Telecommunication technology has the potential to influence the ways in which languages will be taught and learned. In the following section, I discuss integration and the probable impact that computers can have throughout the various stages of the writing process.

1.5 Computer Writing and the Writing Process

Computers are versatile tools. They can be introduced at any stage of the writing process: pre-writing, writing a draft copy, revising, editing, and finally, publishing. One may question why a writer would choose to use the computer instead of handwriting his/her text in the traditional way. Is it a personal preference? Efficiency? There are other questions to consider as well: When is technology use appropriate? Can one be considered too young? Several researchers have questioned the potential of computers as tools to aid the writing process.
Seawel, L, Smaldino, S. E, Steele, J.L. & Lewis, J.Y (1994) conducted a study of the writing performance of Grade 3 and Grade 4 students to investigate the difference between writing by hand and by word processor. With Grades 3 and 4 combined, 71% of the students chose word processing as their preference for the overall writing process. When asked to share advantages and disadvantages of both writing by hand and by word processor, Seawel et al. reported that "most of the 3rd graders shared that writing by hand made their hands tired, whereas the word processing does not. Many of the students from both grades indicated that recopying additional drafts by hand was a disadvantage" (p.51). However, students from both grades expressed the problem of locating proper keys on the computer keyboard as a disadvantage of word processing. In this case, several felt that writing by hand was faster. Finally, most students shared that an advantage of word processing is the convenient ability to revise and edit without the mess of erasing. Third grade students tended to make more revisions and edits and used more words in their draft than the Grade 4 students.

Based on comments from students experiencing both methods, one might think that computers facilitate the act of writing, particularly when the writer is revising his text. From her study examining word processing integration with Grade 4 students, Edinger (1994) stated that because computers made the mechanical aspects of writing easier, students could focus more closely on what they wished to say. Therefore, students were able to produce text that had more meaningful content and better represented the message they wanted to communicate.

Implementing the various stages of the writing process (composing, revising, editing, publishing) in a classroom can be a challenging task. And as we have just reviewed, introducing the technology into the process can certainly support and encourage students to write. Considering
the amount of previous knowledge and experiences necessary to successfully integrate process and technology, could this combination be applicable in grade levels lower than Grade 3?

As teacher and researcher in a Grade 1 class, Keetley (1995) designed her study to investigate the effectiveness of using a computer word processor compared with the traditional paper-and-pencil method for process story writing. She randomly divided her Grade 1 class in half. Each student then wrote eight stories: the control group of 12 used a pencil, and the experimental group of 11 used the computer. Keetley's results indicated that although all students showed growth in their story abilities as the year progressed, the experimental group using the word processor scored significantly higher than the paper-and-pencil group on five of the eight stories as well as the post-test story. These findings suggest that even in Grade 1, students who use computers and word processing software for story writing score higher and write longer stories with more details than the students who use paper and pencil. When this study was completed, the groups were switched to allow the paper-and-pencil group an opportunity to use the computer. Keetley wrote that most of these students expressed a preference for the word processor for process writing, especially at the revision stages of the process, for the following reasons: word processing made revisions easier, their hands didn’t get tired, aesthetic quality was better, peer collaboration at the computer is an enjoyable educational experience, and the process is much quicker.

If the process is facilitated, can we “expect” all students to write more and better texts? Several other research studies indicate that the use of a word processor can have a positive impact on writing performance. Newman (1984) pointed out that along with the ease and speed of revising with word processors is willingness of students to take risks such as varying sentence structures,
word choices and text organization. Hoot and Kimler (1987) presented similar findings. They reported that when writing by hand, revisions have a negative connotation associated with them because it is a messy and cumbersome process. Word processing, on the other hand makes editing faster and easier for students who are able to spend more time improving their writing skills. Edinger (1994) also supports this theory: “The students focused on content and style and considered revisions in a far more sophisticated way than I had seen when they wrote by hand” (p.59). Stuhlmann and Taylor (1998) stated: "Mechanics, such as capitalization and punctuation subject-verb agreement, and sentence structure became important, as did spelling. In addition, students proofread to improve their work and the work of others because they knew that people would be reading and responding to their ideas" (p.87).

When used effectively, computers have the potential to assist writers with revising and improving the quality of their writing. However, educators have to carefully plan the integration of the computer as a tool to support writing instruction and not replace it. In the next section, I will present research studies to help support this theory.

1.6 Computers and Instructional Programs

Research clearly demonstrates that computers have an impact on the writing of elementary students. It is one thing to use the computer and another to use it efficiently. MacArthur (1988) believes the effectiveness of the computer is more dependent on the instructional factors than on the inherent capabilities of the computer. Educators need to critically evaluate and reflect on how efficiently the computer is being used in their program.
Yau (1991), stated that to fully realize the potential of word processing in elementary schools, the following conditions need to be met: (1) a teacher must be actively involved in the process, both as instructor and facilitator; (2) the word processor must be employed in conjunction with, rather than in place of, the other writing tools; (3) teachers and students must have enough access to computers and printers to ensure that the word processor can be fully integrated into writing classes; and (4) teachers must be supported and facilitated.

MacArthur (1988) indicated that word processing may facilitate learning revision skills, if the teacher provides an instructional context that teaches those skills. He claims that using word processors without modifying the instructional program and strategies did not positively influence the writing of special needs children who participated in his research. MacArthur's research evidence to date indicates that if students do not possess the cognitive skills required to evaluate their writing, having a word processor to facilitate editing and speed up the process will not have an impact on their writing skills. Based on the results of his study, MacArthur (1988) claimed that there were no differences in students' writing, handwriting and word processing, unless the students were provided with specific strategies for revising their work.

Educators need to be flexible in their planning to effectively integrate the computer into language classes. Activities must be thoroughly planned to carefully match and address the current knowledge and skills of students. This allows the students to consolidate and enhance their writing skills and computer proficiency.

Another important element for teachers to consider is the instruction of keyboarding skills. This can often become a barrier for writers. As Behymer and Echternacht (1987) reported, finger
Dexterity has been identified as a possible problem in keyboarding instruction for younger children. Seawel et al. (1994) reported in their study of Grade 3 and Grade 4 students using computers to write, that the fourth grade students demonstrated apprehension when using the computer. They attribute this to a lower level of understanding of the mechanics of the word processing program, and lack of familiarity with the keyboard. Seawel et al. suggest that their apprehension most likely affected their enthusiasm. Seawel et al. suggest that one way to increase confidence would be to teach computer keyboarding skills to students beginning at the third grade or earlier. It is also important, early on with students, to use direct instruction in conjunction with hands-on experience in teaching word processing skills.

MacArthur (1988) also supports these results, indicating that typing proficiency has a direct correlation with the length and quality of stories composed on a word processor. He observed that slowness in typing could frustrate students and interfere with their motivation. MacArthur also suggested that a reasonable goal, short of touch-typing, is for students to use correct fingering while looking at the keyboard, and to achieve a typing speed at least the equivalent of their handwriting. In addition, they recommend brief instructional sessions be included as a regular part of computer use.

As stated earlier, Edinger (1994) reported that some of her students tried composing using the word processor, returned to paper and pencil, then went back to word processing after formal keyboarding instruction. Edinger's results support MacArthur (1988) and Seawel et al (1994) in the sense that after providing appropriate opportunities for practice, even young Grade 2 and 3 children did not find the keyboard a barrier to fluid use of the computer. In a different context, MacArthur (1988) claimed that in order to use computers for writing, students must develop
some proficiency at typing and learn to operate a word processor. He states students cannot be expected to have efficient typing skills without instruction and suggests that a 10-minute practice sessions be scheduled during word processing work periods.

I have highlighted the positive impact that computer technology can have on the writing development of second language learners. In the following section, I review a variety of research studies that demonstrate the impact computers have on the motivation and attitudes of language learners.

1.7 Computers and Motivation to Write

Most educators agree that enhanced student self-esteem, increased opportunity for success, positive attitudes towards school, cooperative learning behavior, and raised levels of personal motivation to learn are all critical characteristics of successful learners. As mentioned earlier in this document, a process writing approach has the potential to positively influence elementary students' attitudes and motivation for writing.

A number of researchers have questioned the introduction of computers as tools for writing and wonder if they should expect students' motivation to write or perception of writing to improve as a result of using computers. Other researchers have indicated that word processors motivate students to write more (MacArthur 1988, Edinger, 1994, Keetley, 1995).

In her study, Seawel et al. (1994) compared writing by hand with writing using a word processor. The results showed that students using word processing exhibited improved performance and attitudes towards writing. Seawel et al. say: "Attitude may have made the difference between performance results of third and fourth grade students" (p.55). Although the fourth grade
students enjoyed working at the computer, they were more apprehensive and less enthusiastic about using the word processor than the third grade students. At the end of the study, they attributed the apprehension of the fourth grade students to a lower degree of understanding the mechanics of the word processing program, and lack of familiarity with the keyboard. Their apprehension most likely affected their enthusiasm.

Edinger (1994) reported that children who had not seen themselves as writers and who did all they could to avoid writing began to write enthusiastically. The word processors made them feel they were "real writers."

Why are students interested in writing with computers? Could this effect simply be due to the novelty of the machine? Dwyer (1994) published a summary report based on "the Apple Classrooms of Tomorrow Project." His group investigated the use of technology by teachers and students to see how it affected teaching and learning. Dwyer reports that experiences were positive, as children's interest in and engagement with technology did not decline with routine use. The students demonstrated a steady fascination with technology and used it more frequently and imaginatively as their technical competence increased.

Wheeler (1985) researched the use of word processors in elementary and secondary classrooms. His findings show students who used computers to learn and improve their writing seemed to maintain positive attitudes towards writing, even when the students continued writing projects without the computer.

Integrating technology successfully into a writing program requires careful planning and a high degree of confidence and knowledge on the part of the teacher. Drexler (1990) reported in her
study that when teachers provided ample direction, or allowed students to experiment and teach each other, independent use of the computer soared. Although not all students were adept at solving problems creatively without teacher assistance, students were actively involved in solving problems on the computer. It should be noted, however, that although teachers do not need to be computer experts to facilitate computer integration, they do require a general understanding of computers and of the keyboarding functions.

1.8 Telecommunications and Attitudes Towards Writing

In the last decade, an increasing number of studies have been conducted in the field of computer technology and telecommunications. Most of these studies support the hypothesis that computer technology increases the motivation of learners to accomplish their task and encourages them to learn more and produce better writing.

Oakes (1996) showed how her Grade 1 students benefited from their telecommunications experiences, developing their reading, writing, mapping skills, their understanding of the communication process, their enthusiasm to learn, and so much more.

Positive outcomes also come from Jenkinson (1992) who responded by computer to the writing of elementary students during a summer program. He reported that when he started the project, he believed that students at all levels of instruction might write more and better if they used a computer and had an interested audience in addition to the classroom teacher. By the end of the project, he had confirmed this hypothesis.

Muir (1994) was responsible for a computer integration project in 1994. As part of his reflection on the project, he wrote: "Since integrating computers into class work, teachers at one middle
school have found that computers have improved communication, promoted investigations and inspired creativity" (p. 30). Allen’s (1995) study of e-mail in the writing class showed that homework assignments done on e-mail were consistently longer than handwritten homework, as students seemed less inclined to think of homework as drudgery when it was on e-mail. Although her study involved university level students, I wonder if it would be possible to transfer the same level of success using e-mail for writing in French immersion elementary settings.

Miyashita (1994) investigated changes in the attitudes of Japanese first and second grade children who were exposed to microcomputers in school settings. Her study showed the positive impact of computers on students' attitude. She wrote, "Children who use computers tend to like them more than children who do not use computers" (p. 73).

Based on the multitude of studies related to technology, motivation and attitudes of learners, it is possible to believe that computers can have an impact on the attitudes and motivation of students to learn. Now that we have reviewed some of the main research studies related to this project, we will explore research on collaboration and the use of computers in language learning environments.

1.9 Collaboration and Writing

So far, I have established that there is much support for process writing in second language settings. I have also introduced the computer as a positive writing tool at the various stages of the writing process, and presented studies in which the mix of computer technology and process writing have had an influence on the motivation to write and on attitudes of language learners towards writing. In this section, I will address another element of successful language learning:
collaboration in the classroom. More specifically, I will examine whether collaboration has an
impact on students' writing, and discuss the influence of the computer and e-mail in such
contexts. A number of relevant studies will be reviewed.

Some educators believe that student-student interaction is a more important factor in determining
educational success than teacher-student interaction. Simpson (1986) reported that the influence
of peer relationships could be observed in various ways, such as in educational aspirations and
achievement, social behaviors, attitudes, perspectives, future psychological health, social
competencies, mastery over aggressive impulses and attitudes towards school.

Collectively, the literature supports the idea that cooperative activities result in
students' greater productivity, self-esteem, and acceptance of and mutual concern
for people who are different from themselves. (p. 37)

In addition, Simpson also wrote that social interaction is necessary for the development of
learning skills as well as cognitive skills. Collaborative work demands that students propose,
explain, and justify their ideas can result in a high quality discussion.

Simpson (1986) reminds us that the role of the teacher is crucial in facilitating learning and
ensuring that groups remain supportive and productive. She cites the two basic methods of
cooperative learning being used today are peer-tutoring and group investigations. Simpson also
indicated that learning activities fall into three goal structures: cooperative, competitive and
individualistic. Results from considerable research clearly show that "cooperation is the most
effective way to promote both achievement and productivity, and high levels of psychological
health" (p.39).
This is supported by Garibaldi's (1979) research. Garibaldi maintains that students in both cooperative groups and intergroup competition, performed better, felt more certain about their new skills, and enjoyed their tasks more. Johnson and Johnson (1985) also reported that in cooperative leaning situations, students “celebrate each other's successes, encourage each other to complete the assigned work, discuss, help each other, are motivated and learn to work together regardless of individual differences” (p.11).

Stuhlmann and Taylor (1998) studied the impact of telecommunications on the learning outcomes in elementary classrooms. They witnessed collaboration experiences during their data-collection. They reported that as a result of collaborating on projects, students began to take responsibility for their own learning and the focus of control shifted from the teacher to the students. From their study, the teachers reported, “students became involved in complex learning tasks involving multiple solutions, and learning became horizontal as students of differing abilities worked together. In this environment, all students were considered to be valuable members of each group and their contributions were welcomed. This increased the self-esteem of many children” (p. 88). Finally, Rocklin et al. (1985) reported that students acquired information more quickly when they worked together at a computer.

Now that we have demonstrated the value of collaboration during writing and classroom projects, one may wonder if the benefits of collaboration can be extended to a variety of learning projects, and more specifically, projects that involve the use of technology to communicate with the world. We will therefore continue this review of the literature by considering research projects that relate to the potential influence of collaboration around technology projects.
1.10 Technology and Collaboration for Writing

Once upon a time, personal computers were considered a luxury. Some schools were considered to have rich resources when they owned a few machines. Administrators, and sometimes teachers, had access but only if they were considered computer literate.

The reality of Canadian schools has changed considerably. Schools have been granted budgets in an effort to keep our education system current with the demands of our world. Although computers are purchased at more affordable prices, many schools cannot afford to purchase more than one or two systems per class. In such contexts, educators are faced with great challenges. In an effort to prepare students for the future, the teacher's goal is to integrate computers into their programs. Due to a lack of resources, teachers often have students work with peers at computer terminals as one of the ways to increase student access to the technology. But what else do students gain from working together at the computer?

In their study of collaboration and computer learning, Johnson and Johnson (1985) reported that when students worked collaboratively at the computer, they could: "Observe and imitate each other's use of the computer, experience the encouragement, support, warmth and approval of a number of classmates, have peers evaluate, diagnose, correct and give feedback on their understanding, be exposed to a greater diversity of ideas and procedures provide more creative responses while completing the assignment, have classmates encourage them to stay on task and exert concentrated effort" (p.11).

Another study, by Mayer, Schusack and Blanton (1999) supports these results. They examined the cognitive consequences of children's learning to use educational technology in an informal, collaborative environment. Their observations and data collection took place at three after-school
computer clubs. Their research provided encouraging evidence that appropriate experience with educational technology can promote important cognitive changes in children, including improvement in content knowledge about computing, strategies for comprehending written instructions, strategies for devising problem-solving plans and even in basic academic skills.

This is also supported by Johnson and Johnson (1985) who suggested that cooperative learning with computers (compared with competing with others or working independently at the computer) promotes more and better work, more successful problem-solving, and higher performance on factual recognition, application and problem-solving tasks.

The accessibility of the monitor and the keyboard can be used to facilitate collaborative writing activities among students and sharing of work in progress (Levin, Riel, Rowe & Boruta, 1985; MacArthur 1988). In a different context, Zammuner (1995) analyzed drafts and revised computer narratives produced by Grade 4 students in three different conditions: 1) students wrote and revised narratives individually; 2) students wrote individually but revised with a partner; and 3) pairs of students wrote and revised a text together. Her measures showed that children's revised copy had more original and well-organized content, described better stories protagonists, used a more sophisticated language, contained fewer mistakes of various kinds and exhibited greater grammatical complexity than first drafts. When children revised together, they were able to carry out both local and more global revisions and could do so even without explicit training. She also indicated that the writing condition associated with the greatest improvement from draft to revision was when the child wrote the narrative alone but revised it together with another child. Finally, she found that children's best writing condition is when they write their text together with another child, but change partner when revising it. However, cooperative writing
and/or revising with a same level peer will not allow young writers to perform beyond the dyad's collective competence level. Zammuner (1995) stated, “explicit instruction and training on text quality aspects are therefore necessary” (p.122).

Drexler (1990) pointed out that “when used appropriately, computers can offer new and exciting opportunities to work together cooperatively. The new behaviors and attitudes students may acquire as a result of such cooperative learning experiences may have an impact on student achievement” (p. 13).

This is supported also by Riel (1983), who studied the functional environment created when a computer-based newswire service linked an Alaskan school with a urban California system. Riel found that cooperation during writing resulted in better idea formation and easier editing. The expository writing produced was longer and the content more appropriate. Perhaps most significantly, she found that children were much more excited about writing. Drexler's et al. (1990) research found that the project could be highly motivational for students, provided students with alternative avenues for success, which may lead to increased self-esteem and self-confidence, and that the project provided students with opportunities to work together cooperatively and to tutor and/or assist one another.

Educators may question whether students paired to work together really keep their focus on the work assigned or if a large amount of time is not being used appropriately. In a different study, Dickinson (1986) introduced a computer into a Grade 1/2 writing program. The computer was used as a tool for collaborative writing. Dickinson analyzed the effect of the computer on collaboration and interaction during writing time. In the classroom where the study took place, paper-and-pencil work during writing time was nearly always done by children writing their own
piece and by minimal talk about the writing, mostly with the teacher. Writing at the computer created:

a new social organization that affected interactional patterns. Collaborative writing sessions included considerable talk conducive to planning, self-monitoring and responding to what was being written (p. 357). By articulating objections to what their partner was writing, children could become more aware of what they knew implicitly. Also, peers could provide instruction or feedback as soon as the problems arose: (p. 376)

Dickinson (1986) concluded his article by writing that although we need to learn more about encouraging collaborative writing where other approaches to writing are being used. He suggested that a computer equipped to do word processing can be integrated into a process-oriented writing program as early Grade 1. In such a classroom, collaborative computer writing may add an important dimension to the writing program by encouraging children to articulate plans and reactions to the writing of a peer.

Several research studies (Hawkins 1983, Nida et al, 1984) showed that students tend to talk to each other much more about their computer work than when they are doing non-computer tasks, even when those tasks are specifically organized to encourage such interaction.

However, as much as computers tend to encourage students to work in groups, it has been noted that group working around the computer may not always be successful if the class has not had previous experience working in groups or pairs (Higgins and Johns 1984). Also supporting this statement, Simpson (1986) argued that students needed to be taught about the dynamics of group
work before they could experience the full benefits of collaboration when completing learning projects on the computer.

Finally, there are numerous ways that educators can potentially integrate computer applications to develop writing skills and collaboration abilities. Not every idea is ideal in every context. Based on his study of computer application in the classroom, Sheingold (1984) suggested that drills and practice are suited to individual students interacting with the computer, while programming and word processing could provide more opportunities for students to work together.

After this review of the literature, the conclusion is that it is the teacher’s professional responsibility to plan a careful implementation of the current and developing technology into the classroom learning programs. The findings of numerous research studies point to the many benefits of technology to enhance language learning as well as to foster positive attitudes towards learning, even among very young pupils. Educators believe technology will be an integral part of our children’s present and future years. We are therefore responsible for preparing them for the challenges of their educational and professional careers.

In this thesis, I discuss the integration of e-mail telecommunications into Grade 2/3 French immersion classrooms and how this brings French audiences into these classrooms. I attempt to discover, evaluate and offer insight regarding the influence of e-mail technology on the attitudes of Grade 2/3 early French immersion students and discuss how process writing impacts the development of their writing skills.
Chapter Two

Design of the Study

2.1 Research Design

The next two chapters of this thesis have a common goal: to support a better understanding of this study and allow researchers and teachers to replicate or build on its findings. However, a different writing style is adopted in these two chapters. In Chapter Two, I present the specific information related to the design of the study and methodology, participants and research setting, procedures as well as instruments and data analysis. In Chapter Three, readers will find research and classroom information integrated and presented as a narrative description. Chapter Three focuses on pedagogy and will be of prime interest to educators interested in finding out what happened in my classroom during the project. Chapter Three also includes specific information related to program delivery as well as an introduction to the four participants from the experimental Grade 2 and Grade 3 groups who will be referred to repeatedly in Chapters Four and Five.

This research project is designed to investigate the impact of a particular writing activity (e-mail) on my own Grade 2 and 3 students’ attitudes towards writing and writing development. This is an action-research project, which uses a combination of experimental, narrative, qualitative, quantitative and case-study methodologies. My general goal is to question the influence of e-mail on the cognitive and affective development of my students. The results of this study will allow me to better understand the impact of e-mail on my program and therefore support my willingness to improve a situation for all parties involved in that context. Combining various methodologies allowed me, as teacher researcher, to observe, record, and describe the project in
its natural setting. For this particular project, I assumed the role of participant-observer due to the fact that I was teaching the students, in addition to observing and collecting the data. Assuming this role enabled me to examine the children’s writing, attitudes and interactions holistically, as they occurred, without much interference.

Some elements of experimental methodology were used for this project as it was necessary to try to isolate the influence of one particular variable (e-mail). The perfect setting for an experiment would have been the creation of at least two randomly divided groups evolving under similar conditions: same instructor, program, activities, context, grouping, and participants’ abilities. In this case, I would have chosen one group to administer a treatment (e-mail projects) and one group to remain uninvolved. This would have insured that the data collected was closely related to the impact of the treatment. In this particular case, a perfect experimental setting was not possible because I was the homeroom teacher and therefore unable to provide instruction for two or more classes. If the combined grades (2 and 3) that I was teaching had not created very small clusters of students, an alternative would have been to divide the class into two groups. I decided to select two other classes in my division to act as control groups. These classes were selected based on particular similarities between their learning program and instructor’s teaching style. The two teachers agreed to collaborate to design their teaching program, and restrain from presenting any e-mail activities until the project was completed.
2.2 Participants in the Study

2.2.1 Experimental Group

As the researcher for this study, I was also the classroom teacher of the participants in the experimental group, who were my own Grade 2 and 3 Early French Immersion students. During the placement process that occurred at the end of the previous year, sending and receiving teachers discussed students' abilities and behaviours to ensure balance among the groups (high, average, special needs). Other criteria that were used to create the groups included students' learning style, personality, gender, and for students in the combined grades, their ability to work more independently. Based on all these criteria, 21 students became members of this class (two students also joined the class during the year). In sum, 18 students became participants of the experimental group for the project: nine Grade 2 children (five boys and four girls) and nine Grade 3 children (five boys and four girls). Two families did not grant permission to collect research data, and one student left before the completion of the project.

2.2.2 Control Groups

Two control groups participated in the study. The Grade 2 class started the project with 23 students, but during the course of the project, five students left for various reasons. A total of 18 families granted permission to collect data. The number of actual students who completed the entire project was 14.

The Grade 2 teacher was a very creative and organized professional who believed that phonics skills were the base of second language learning, and presented the language program accordingly. Writing practice and application activities were structured and presented to the
entire class, and students were occasionally encouraged to produce creative writing pieces. The teacher had little experience with technology integration but was very interested in learning. For that reason, I arranged to spend one period each week in that class in order to present various activities to students. The teacher and I worked together to demonstrate a variety of ways to integrate computers into the program.

In the Grade 3 class, there were initially 22 students. Two new students joined during the first term, and one left before the end of the year. I received permission to collect data from 19 of these families, but only 18 students completed all of the requirements.

The Grade 3 teacher was very open-minded, interested in new ideas was actively involved in technology integration, and had been offering computer activities and developing websites for years. This teacher's language program included literature-based and commercial program support documents. Although that teacher incorporated elements of the writing process in most teaching units, there was also an emphasis on the development of proper language and grammatical structures.

For the purpose of this project, two teachers collaborated with me in order to plan teaching programs that would offer as many common aspects as possible, and both teachers agreed not to integrate e-mail activities into their writing program until the study was completed.
2.3 Research Setting

2.3.1 School Context

This study was carried out at a public school in the Region of Peel, Ontario. The school housed students from Kindergarten to Grade 6 and followed a dual-track model, where approximately two thirds of the students were enrolled in French immersion, with a total school population of close to 550 students. The school is located in a middle-upper class neighbourhood in a small community. Approximately 200 students walked to school while the others were transported to school by bus and came from various multicultural communities from the surrounding areas. For some families, English was already a second language and French became a third. The French immersion students also came from a variety of socio-economic levels.

2.3.2 Classroom Context

The classroom where the study took place was located inside the school in a room initially designed to host Kindergarten classes. It was connected to another Kindergarten classroom, housing a Grade 3 class for the current year. These two classrooms were larger than regular classrooms in the rest of the school, and had their own outside entrance, cloakrooms and bathrooms. They were furnished with individual desks and several tables.

Like all classrooms throughout the school, we were equipped with three networked computers, which had the capacity to be connected to the school network and therefore offered access to the Internet and e-mail software. As an exception, this combined Grade 2 and 3 classroom had two additional computers: old 386s operating in a stand-alone mode with a typing program and word
processing software. One had been donated to the classroom by one of our school's families when they updated their home computer system.

Finally, it is important to mention that parents were very actively involved in the classroom. They volunteered to help in the classroom and came in on a regular basis to support various parts of our program. It was not unusual to have volunteers one or two half days a week. They lead some classroom activities, worked individually or with small groups of students, and supervised the work in the computer area.

2.4 Procedure

My language learning program is based on the full integration of the process writing approach. For this reason, the project and its treatment (e-mail) were intended to be authentic learning experiences and were fully integrated into our regular process-writing program. The project began in the 2nd week of October and ended on the 3rd week of February, a total of 17 school weeks (not including the winter holidays). As teacher researcher, I introduced the projects to the class, helped students develop their e-mail address book, instructed students on how to use the class e-mail system (First Class), encouraged and supported my students on a daily basis and kept track of all incoming mail and sent e-mail messages. Regular language lessons and time periods were provided for the students during which they were invited to pursue their various ongoing communication projects.

At the beginning of the project, students were involved in the Flat Stanley project. They each created a flat character and e-mailed it to relatives and other participating classes. The purpose of this exercise was to communicate and collect information about other cities and countries around
the world. This assignment was our primary project for the first 5 weeks, and then became optional throughout the rest of the study.

The second project that I introduced in the class was an e-mail exchange with French-speaking European classes. This project began in Week 6, as a small group activity, and evolved into individual e-mail correspondence during Week 9. As we had received introduction letters from the students in France, each of my students chose a keypal and became responsible for continuing the communication with that new friend; discussing personal as well as school-related projects. While I kept track of messages on the computer, students kept track of their communication exchanges and filed all the e-mail messages (sent and received) in their communication folders. This project continued throughout the study, and until the end of the school year.

Finally, the third project involved students completing research projects on various Francophone individuals, groups or resources in the community. Groups of students were responsible for e-mailing community resource people to request information they were not able to retrieve in books or from the Internet. This project began during Week 14 and continued until the necessary information had been collected, a few weeks after the end of the data collection period.

As authentic communication is a main goal of the process writing approach, I encouraged students to create writing pieces for meaningful audiences (relatives, other students in the world, teacher, key pals, community resources, etc.) with a clear purpose for writing: sharing and exchanging knowledge and ideas, requesting information, etc. Depending on the project students were working on, writing occurred either collaboratively as a whole class activity, in smaller groups, or individually. Although “Communication Time” was allocated during French
Language Arts, for students to pursue their French projects, we occasionally received and responded to e-mail messages in English.

Within the framework of the process approach, students were always encouraged to discuss their work as well as ask peers, parent volunteers or teachers for assistance. Collaboration while working at their desk and at the computer was accepted and reinforced. As teacher-researcher, I supported the students throughout the learning process and closely supervised the incoming and outgoing mail for all the participants.

2.5 Analysis of the Data

Qualitative and quantitative instruments were used or created by the researcher in order to collect a variety of data for this project. The purpose of the project was to study the potential influence of the treatment (e-mail activities) on the participants’ attitudes towards writing as well as possible writing improvement. Several of the instruments were used both at the beginning and at the end of the process. Data were studied, organized into tables and compared from pre-treatment to post-treatment. Comparisons between experimental and control groups were conducted according to grade level. Other tools such as the researcher's journal were kept throughout the project and used during the analysis to support other existing data. The following sections describe the data collection instruments and data analysis used in this study.

2.5.1 The Attitude Questionnaire

Pre and post-study attitude questionnaires (Appendix A) were administered to all students to determine if there were any changes in their attitudes towards writing.
Each participant was required to complete the questionnaire twice: once at the end of September, and again at the end of the project in February. The first time students were required to complete the questionnaire I guided them, as a group, through the process, asking and explaining each question as the class answered. For the post-questionnaire, I met individually with each student, asked the questions one by one and recorded their answers. Where applicable or when necessary, I asked participants to explain or comment on their answers, and recorded their information beside the questions.

The first section contained background information on the students such as date of birth and availability of a computer at home. The second section focused on attitudes towards writing, with a differentiation between English and French writing. Additional questions related to concepts such as how the children perceived themselves as writers. The third section included questions related to the children's attitudes towards process writing. Finally, the fourth section investigated the children's attitudes towards writing using the computer. All four sections included questions about students' attitudes towards collaborative work.

The analysis of the questionnaire was quantitative. The responses to the items were analyzed by groups for both Week 1 and Week 17 data. For each response, the percentage of children selecting that response was calculated. Chi-square analyses were conducted on both Week 1 and Week 17 responses to determine whether there were significant differences between each group.

2.5.2 The Descriptive Writing Scale

All participants from the experimental and control groups were required to produce two writing samples: The first one in October (Week 1), and the second one at the end of the project in
February (Week 17). In an attempt to facilitate the assessment and analysis, a particular setting and clear instructions were provided to all the students each time. The first time, students in the experimental group wrote a letter to a friend in the control group. Their letter became their first sample. The following day, the control group students were given 10 minutes to read the letter. The letters were then filed and the students were asked to reply to the letter for their friend in the experimental group. The reply became their first writing sample. At the end of the project, all the students were asked to write a letter to a person of their choice. Among the chosen audiences were relatives while some students chose to continue to exchange letters with the same friend as the first letter. It is important to note that although these two samples were not produced in exactly the same context, we are assuming that the settings were similar enough to allow comparison.

Students in the experimental group completed e-mail writing activities over a period of 17 weeks. All e-mail messages sent by students in the class were saved and collected for potential data analysis and support.

I designed the descriptive writing scale (Appendix B) according to the process writing philosophy, as well as to the criteria recommended by the Ministry of Education and the District School Board where this study took place. The rubric assessed 3 selected writing strands: content and vocabulary (main idea, supporting details, coherence as well as basic and thematic vocabulary), writing conventions (sentence structures, spelling and punctuation) and text organization (greeting, introduction, final greeting and signature). The descriptive indicators for each writing skill corresponded to a numerical rating scale from one to four (1-4), representing four stages of acquisition. Stage One represented beginning acquisition, Stage Two represented
partial acquisition, Stage Three represented full acquisition and Stage Four represented application above grade-level expectation.

To ensure increased reliability of the writing assessment, another external scorer (a French Immersion teacher from the same school) was asked to assess a portion of the writing samples (Three pre-samples and three post-samples from each of the experimental and control groups). The scores given by the researcher and independent scorer were compared to ensure that the assessment was not biased in any way. The researcher and independent scorer agreed on a majority of the elements for a majority of the samples.

The writing samples were analyzed both qualitatively and quantitatively. First, qualitative analysis was conducted by assessing the writing samples according to the descriptive rubric. Class means were calculated and analysis of variance (ANOVAs) compared the experimental and control groups to determine whether e-mail activities had an impact on the children's writing skill development. Individual writing scores were also calculated and a repeated measure analysis to determined whether there were any significant gains from pre- to post-samples.

2.5.3 The Keyboarding Ability Test

As e-mail activities require students to type messages on the computer, keyboarding was an important factor to consider when analyzing the data. I designed a keyboarding ability test (Appendix C) and administered it to students in the experimental group only. A pre-test took place at the beginning of the project (Week 1). This data was originally collected in order to support the results of the relationship between attitudes towards writing and the use of computers
to write. For the first 6 weeks of the project, students were provided with regular keyboarding instruction and practice periods. However, based on observations and discussions with students, it was noted that most students felt very frustrated with the keyboarding instruction and did not enjoy typing their own messages on the computer. From Week 7, keyboarding instruction and practice became an optional activity and students were encouraged to request assistance when they needed to type messages on the computer. For that reason, a keyboarding ability post-test was not administered to the students.

2.5.4 The Teacher Reflection Journal

As teacher-researcher, I kept a journal of reflections on the progression of the project, describing the context of particular activities, as well as reflecting on pedagogical and research issues. My journal included new ideas, questions, hypotheses and suggestions for how the project could be improved.

2.5.5 The Teaching Style Questionnaire

At the beginning of the project the two control group teachers and I completed a teaching style and preference questionnaire (Appendix D). The questionnaire focused on teacher preferences regarding the teaching of writing. The questionnaires were then analyzed and compared for the purpose of assessing similarities and differences between control and experimental groups.
Chapter Three

A Narrative With a Focus on Pedagogy

3.1 Introduction

In 1998, being a fairly new French immersion teacher, I was perpetually looking for ways to improve my teaching program while continuing to develop as a professional educator. One day, a colleague suggested that I begin to study for my Master’s degree. Following my initial shock, I started to read program descriptions and came upon the research requirements. I am not a researcher, I thought at first: Research means questioning a situation or an idea, designing instruments, collecting data, describing and analyzing, interpreting, reporting, publishing, etc. However, it was not long before I realized I had this experience as a teacher and did a type of research on a daily basis. It was at that point that I decided to enroll in the Master’s program and this research project became my biggest challenge ever!

3.2 The Teaching Context and my Experience With Program Delivery

This research study took place during my fifth year teaching. I had already taught 3 years as an immersion teacher, in the same division, but in three different schools. Reflecting on these years, I felt that my teaching skills had improved annually as a result of continuous questioning and constant teamwork with other professionals. In the next section, I provide an overview of the Ministry of Education and district school board contexts.

In 1997, The Ontario Ministry of Education and Training published new curriculum documents for the elementary schools. The first two documents to be implemented were the Language Arts and Mathematics programs. The following year, the Science and Technology, Social Studies,
Arts, Health and Physical Education and Core French curriculum documents were distributed to schools for immediate implementation. The French Immersion curriculum document had not yet been published when this study took place. A selection of key words links all these documents together: assessment-based instructions, collaboration, technology integration, partnership with the community, etc. In order to support educators needing to meet all these learning expectations, the district school boards were invited to create their own implementation plans.

Our District School Board is very active in creating support documents. In order to meet the highest number of expectations, the Board recommended an integration approach, with the Science and Social Studies curriculums as starting points. Teams of teachers were selected and Science Modules were created. The modules offered culminating task projects for the students as well as subtasks and instructions for educators, presenting a combination of Science and Technology, Mathematics, and Language Arts learning expectations. These modules were first written for the English programs.

Our District School Board offers various French as a Second Language programs. This particular study took place in an early French immersion classroom. In the early French immersion program, students in Kindergarten and Grade 1 receive instruction in French only. In Grades 2 and 3, the instruction in French represents 80% of the program, covering the subjects of Language Arts, Mathematics, Science, Social Studies, Visual Arts, Drama and Dance, Health and Physical Education.

To better support their teachers, the School District Language Department is actively developing resources to support the French immersion program. At the time this study took place, we had a French Immersion Language Outcomes document, and support adaptations for many English
documents such as the Peel Writing Scales and Writing Exemplars, French adaptations of the board's Science Modules, and more.

The District School Board has an open policy regarding registration in French immersion. Currently, the only registration requirement is that non-French speaking students must enroll in the program from the Kindergarten year. Although parents do not need to be francophone or even knowledgeable in French, they have the responsibility to support their child as they are learning via a second language program. As children progress through the first years in French immersion, teachers and parents keep in close communication regarding the children's progress and attitudes towards the new language context. Although teachers may occasionally suggest teaching and learning modifications or even alternative programs for particular students, it is ultimately the parents' decision to continue in French immersion or to transfer a child back into a regular English program.

By 1999, my colleagues and I had had worked for a year or 2 on implementing the new curriculum documents that the Ministry of Education had recently released. Eight documents were received almost simultaneously with little time allocated to training and implementation; Implementing the new programs became one of our daily preoccupations.

At this point, it is important to note that French immersion teachers face a dual challenge on a daily basis: successfully implementing the Ministry curriculum documents and delivering most of their teaching program in French. By the time students reach Grades 2 and 3, the French ratio diminishes from 100% to 80 %, and English Language Arts instruction is formally introduced. Combining this information with the integration model recommended by the school board, it was my responsibility to use Science or Social Studies as starting points and to link my other subjects
(French and English Language Arts, Math and the Arts and Health and Physical Education) together to create significant and motivating teaching and learning units. In a perfect world, a typical schedule for this integration of curriculum areas would involve each day beginning with 4 hours of instruction in French, followed by one hour of English Language Arts instruction. However, even though we were close to the model, my students were not taught Music and Physical Education in French as there were no specialist teachers available. In addition, French time was deducted from the schedule for the duration of morning announcements (15 minutes daily), school assemblies or presentations, and the Grade 3 Provincial Assessment Unit (EQAO) took place in English (5 full school days).

The present research project was designed to be fully integrated into my teaching program, and therefore integrated into our Science and Social Studies learning units. Considering communication is one of the authentic purposes of French writing, I attempted to create activities that would be authentic for students, and still support my teaching program. For example, an expectation of the Social Studies curriculum document is that students investigate features of communities around the world (such as lifestyle, traditions and environment), and compare them to characteristics of their own communities. By setting up real exchanges with francophone citizens in France and Italy, authentic information became available for my students to complete their research inquiries.

Following is a brief overview of possible weekly activities for a Grade 3 learning unit. The unit under study was a Science project called “La Folie des billes”. Students were required to investigate the effect of gravity on rolling objects and develop their own marble maze. This stable structure had to have an inclined plane, and two different mechanisms that the marble would activate on its way to the end of the maze. English and French Language Arts, Math, and
the Arts were to be integrated throughout the week. This particular week was the first week of the unit.

Typical Weekly Schedule for Program Delivery in the Experimental Group*

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 9:15</td>
<td>Announcements</td>
<td>Announcements</td>
<td>Announcements</td>
<td>Announcements</td>
<td>Announcements</td>
</tr>
<tr>
<td>9:15 to 10:30</td>
<td>Discussion about marbles and</td>
<td>practice of the vocabulary and</td>
<td>project activities</td>
<td>project activities</td>
<td>of vocabulary and language</td>
</tr>
<tr>
<td></td>
<td>introduction of some thematic</td>
<td>language structures</td>
<td>- Discussion</td>
<td>- Discussion</td>
<td>structures:</td>
</tr>
<tr>
<td></td>
<td>vocabulary</td>
<td></td>
<td>- Keyboarding</td>
<td>- Keyboarding</td>
<td>- Plays</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- E-mailing</td>
<td>- E-mailing</td>
<td>- Song</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Poems</td>
</tr>
<tr>
<td>2nd block</td>
<td>Science: Initial assessment</td>
<td>Science: Introduction to the</td>
<td>Science: Experiments with falling</td>
<td>Science: Introduction and</td>
<td>Music and Physical</td>
</tr>
<tr>
<td>10:45 to 11:55</td>
<td></td>
<td>final task</td>
<td>objects and influence of gravity</td>
<td>revision on fair test procedures</td>
<td>Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and rules</td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd block</td>
<td>Math: Marble Race</td>
<td>Math: Measurement of length</td>
<td>Math: Length measurement</td>
<td>Math: Measurements of all kinds</td>
<td>Reflection on the week’s activities</td>
</tr>
<tr>
<td>12:55 to 2:05</td>
<td></td>
<td>units for the marble tracks</td>
<td>lesson and application for La folie</td>
<td></td>
<td>Portfolio and goal setting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>des billes</td>
<td></td>
<td>activities</td>
</tr>
<tr>
<td>2:20 to 3:30</td>
<td>about gravity and Science</td>
<td>write lists (e.g.: of materials</td>
<td>Education</td>
<td>a magazine article about the</td>
<td>and finish work or choose a</td>
</tr>
<tr>
<td></td>
<td>journal entry</td>
<td>used for Science)</td>
<td></td>
<td>making of marbles</td>
<td>favourite activity</td>
</tr>
</tbody>
</table>

Typical weekly schedule for program delivery in the experimental group. * Alternating Science and Social Studies units was the recommended practice. School assemblies or presentations occasionally altered the schedule.

Finally, while the Grade 3 students are working on their “Folie des billes” project, the Grade 2 students are continuing their own Science studies related to animal adaptations. Activities in
Grade 2 and Grade 3 are sometimes similar in terms of learning concepts but focused on a different topic. E.g. measuring the length of animals.

### 3.3 A Typical Communication Period

As seen in the previous timetable, a portion of time each morning was dedicated to communication activities in French. These activities generally included discussions, and an update on our various projects, various stages of the writing process, and use of technology either for practising keyboarding or typing in a message on the e-mail software. To better understand what happened in the classroom, a short description of a typical communication period follows:

Based on my teaching experience, students generally demonstrate good thinking and creative abilities early during the day, before they feel too tired. Therefore, as creative thinking and writing are challenging tasks, most of our communication periods were scheduled in the morning during the first block of time. A period generally started with a pair of students responsible for checking the e-mail software for incoming messages (after my personal safety check). If there were messages, recipients were then invited to check their mail, print it out and file it in their folder.

Following this, we would often have short discussions during which students would inform their peers or class of their most recent project developments, successes or challenges. This time together represented a perfect opportunity for me to talk about recent developments with the class or offer a mini-lesson on writing style, organization, vocabulary, language structures, grammar or computer applications.
After this exchange of information, we would collaboratively outline a priority list for the students to follow to successfully complete their projects. For example, during Week 10 of the project (see Table 1 later in this chapter), our priority project was communicating with our individual keypals. Here is a priority list we developed collaboratively:

- Continue to prepare draft copy
- Revise with a peer
- Edit work, individually or with a partner
- Type text into the e-mail software, individually or with a partner
- Request teacher's permission to send the message
- When complete, continue communication with the European group
- Prepare a Flat Character trip or accessories (clothes, sunglasses, etc)
- Prepare a computer picture for a communication project
- Practise keyboarding skills
- Creative writing of your choice

Once the list was developed, students were invited to identify the necessary stages to complete their own project and to continue their work. As one could imagine in a project approach that incorporates the process-writing philosophy, most students would not be working on the same task at the same time. My role as teacher was to guide, encourage, support and supervise students as they worked through their communication projects. In that busy perspective, collaboration among peers and parent volunteer assistance were always encouraged and valued.

3.4 Project Description

The data I have collected throughout this project and which is presented later in this report would not be meaningful without understanding the context and development of this learning/teaching/study project. To provide a better understanding of how the project unfolded,
an overview of the project's 17 weeks is outlined. The description of each weeks' activities includes the number of minutes allocated to the "Communication Activities", the number of messages sent, a brief description of the teacher's role and the students' activities. Finally, examples of student writing are included. It is important to note that a number of the samples included in the following table were individually and peer-edited and have been included as the students wrote them. For that reason, errors have not been corrected.

Table 1 Weekly description of the project

<table>
<thead>
<tr>
<th>Timeline &amp; number of e-mail messages sent</th>
<th>Teacher's role</th>
<th>Students activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 October 1999</td>
<td>Administration of attitude questionnaire and collection of writing samples</td>
<td>All participating students complete the attitude questionnaire and the initial writing sample.</td>
</tr>
<tr>
<td>E-mail messages sent this week : 1</td>
<td>Keyboarding ability test</td>
<td>Students go to the computer with a parent volunteer and type in a sentence while the parent times how long it takes and notes any difficulties.</td>
</tr>
<tr>
<td></td>
<td>Introduction of the Flat Stanley Project. I read the book to the class. The Flat Stanley project is based on a 1964 book written by Jeff Brown. One day, Stanley is accidentally flattened by a bulletin board that falls on him. He begins wonderful adventures. The international project invites classes to create their version of Stanley and to exchange him with other participating classes as well as relatives, friends and famous people. E-mail and postal mail addresses are available on the Internet.</td>
<td>Students listen to the story and officially welcome Stanley as a classroom member. The class collectively creates a real-size model of the boy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The following day, the class visits the website for the Stanley Project and decides it would be great to participate. The class registers in the project by e-mailing and sends a collective message with contact information.</td>
</tr>
</tbody>
</table>
Week 2
Oct. 1999
E-mail messages sent this week: 0

Introduction to keyboarding/typing instruction software “All The Right Type.” A parent-volunteer supervises the area.

Class presentation and review of the drawing software “Paintbrush”.

Process writing lesson: The content of a message, introduction of the Communication Planner

After the class presentation, each student goes to one of five available computers and begins the introductory lesson on posture and fingers. Students try to complete Lesson 1, practicing the “f” key.

Students use the computer to commonly create several pictures of Stanley.

Students receive a copy of the Communication Planner and practise creating oral messages within small groups.

Communication Planner

Planificatore de communication

Pour qui est le message?
Cher Frank,
Chère Marie,
Chère Parents,
Bonjour mon ami Jeff,
Salut Katie.

Quand écris-tu ce message?
Lundi le 3 juillet 2000

Qui es-tu?

Si tu écris à un étranger:
Je m'appelle John, et j'ai 15 ans. J'habite à.
J'aime ..........................................................

Si tu écris à une personne que tu connais:
C'est moi, ton ami Nathalie. Comment ça va? Je vais bien, et toi?

Pourquoi écris-tu ce message?
Je t'écris ce message pour... te demander si

Que veux-tu?
J'aimerai que tu... répondes à quelques questions... m'écrives une...

Formule de politesse avant de finir:
J'ai hâte de recevoir de tes nouvelles!
Ecris-moi bientôt!
À bientôt!
Au revoir!
Sinécure...

Finalement, ta signature (ou ton nom de code)
Week 3
Oct. 1999

Communication time allocation:
approximately 30
min/day, 3 times this week.

E-mail messages
sent this week: 8

Keyboarding instruction continues. Parent
volunteers are regularly present to supervise
and support students working in this area.

Most students spend approximately 20
minutes per lesson, and have the
opportunity to go 2 or 3 times per week.
Students continue to rotate at the computer,
trying to complete one lesson daily.

Teachers model and create collective e-mail
messages, demonstrating how to create
content for the message (see insert below).

Students collectively create an e-mail
message to introduce the Stanley Project.

Class presentation and demonstration of e-
mail software (First Class) that the class will
use to send and receive electronic messages.

Flat Stanley is e-mailed to the principal and
to two other classes in the school. An
explanation note is sent requesting that
Stanley and his journal be returned within
X number of days.

Creation of the Flat Journal and the e-mail
address book.

Students ask their parents to provide them
with a list of e-mail contacts of friends and
relatives.

E-mail Stanley.

When students return with addresses, they
begin to e-mail Stanley to their contacts,
including a picture as an "attachment."
Other students are planning their writing.

COLLECTIVE FLAT STANLEY MESSAGE
CREATED AND EDITED BY THE CLASS

Bonjour!

Je m'appelle Stanley Plat et les amis de
Mlle Robertson m'ont fabriqué. Je suis un
projet de leur classe. Regarde ma photo
dans les attaches...
Je suis un garçon, j'aime beaucoup les jeux
vidéo et la crème glacée au chocolat. À
l'école, mon sujet favori est les sciences.

J'aimerais passer 5 jours avec toi. Est-ce
que tu peux m'inviter avec toi quand tu vas
à l'école et aussi quand tu vas faire des
sports. Peux-tu me fabriquer des nouveaux
vêtements, moins chaud, parce que bientôt
je vais aller visiter la Floride. Il fait très
chaud à la Floride!

Quand ma visite sera fini, est-ce que tu
peux écrire un petit journal des choses
qu'on a fait ensemble... Ensuite, retourne-
moi par courriel à ma classe et mes amis.

Merci et écris-leur bientôt!
Les élèves de Mlle Robertson
Week 4
Oct. 1999

Keyboarding instruction continues.

Students continue to use the software to practise typing (approximately 20 minutes per student throughout the day). Each student has at least three turns each week.

Communication time allocation: approximately 30 minutes a day, on 4 different days.

Process writing lesson: Editing and revising a message. Introduction of the Editing Checklist

Students receive a copy of the editing checklist and work with a partner to practise revising and checking their written work.

E-mail messages sent this week: 5

Stanley e-mail continues.

Students continue using the communication planner and the editing checklist to write messages before sending Stanley e-mail around. Most students start their draft, or type it into the software, but do not have time to complete the communication this week.

COPY OF THE EDITING CHECKLIST

Aide-mémoire pour réviser mon texte

<table>
<thead>
<tr>
<th>Mes lettres majuscules</th>
<th>au début de la phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>aux noms de personnes, place et choses</td>
<td></td>
</tr>
</tbody>
</table>

Ma ponctuation

point à la fin de la phrase

point d'interrogation aux questions

point d'exclamation aux surprises

guillemets aux dialogues (quand les personnes parlent)

Mon vocabulaire

dans mon cahier de vocabulaire

dans mon dictionnaire

Mes phrases complètes

nom ou pronom

verbe ou action

adjectifs, adverbes ou compléments
Communication time allocation:
approximately 40
minutes twice during
the week.

E-mail messages
sent this week: 13

TEACHER EDITED COPY OF
BENJAMIN PLAT SENT TO
GRAND-MAMAN

ENVY

Continue to e-mail Stanley.

As some students are losing interest in
Stanley, we created Flat Friends for him (see
insert below).

Some students receive a reply to their
message and prepare to write back. Most
students are finished sending at least one
message. They log all this information in
their Flat journal.

Most students create friends for Flat
Stanley, such as Flat Snoopy, Flat Wayne
Gretzky, Flat Ms. Frizzle, and e-mail these
Flat Friends to friends and relatives.

Reply from Grand-maman

Bonjour M.S.

C'était un plaisir de rencontrer
votre ami Benjamin Plat. J'aime
son nom et il est très beau.
Voici un petit journal des choses
que j'ai fait avec Benjamin.
La semaine passée il
m'accompagnait quand je suis
allée au travail. Tous mes amis
étaient vraiment heureux de jouer
avec Benjamin. Il m'a aidé de
faire mon travail et ensuite nous
pouvions quitter le bureau de
bonne heure.

Nous sommes allé au centre
d'achats Square One et Benjamin
m'a aidé de choisir des cadeaux à
Noël pour M.S. et sa soeur.
J'espère que Benjamin s'amusait
bien chez moi et qu'il me fera un
autre visite. Il m'a donné
l'occasion de parler en français, et
c'est une chose que je ne fais pas
assez souvent.

Sincèrement,

Grand-maman
Week 6  
Nov. 1999

E-mailing Flat People to other classes around the world (see insert below).

Communication time allocation: approximately 30 minutes a day, twice during the week.

E-mail messages sent this week: 5

Introduction of the European Keypals. Two classes in France and one class in Italy are interested in exchanging ideas and communication with us. I divide my class in three groups. Each group is given the introduction message we have received from Europe.

Students continue e-mailing Flat Friends to relatives, and begin choosing various participating classes from the Internet site.

Students read and create a draft group reply to their twin class. They are responsible for introducing us as a class and asking questions to find out more about our new friends. When groups are ready, students type the messages into the e-mail software and send replies to our new friends.

INDIVIDUALLY EDITED OUTREACH TO THE WORLD FOR FLAT TINTIN (includes errors)

Dear Rayon,
The students in our school study Italian, not French, but I have a friend who is a French teacher at a nearby school. I'll forward your message to her to see if a member of her class would be interested in receiving your Flat Tintin.

Regards from Jackie

Chère classe de Mlle...,

Je m'appelle Rayon de Soleil. J'habite aux Canada. Je veux te donner Tintin Plat. Il veux vous visiter pour 7 jour. Est-ce que tu peux lui donner aux personnes de ta classe pour prendre a leurs maison, et s'il vous plait, est-ce que ta classe peux faire un journal pour lui? Tu peux me donner les journaux à cette adresse:

J'espère que vous allez accepter Tintin Plat... Écrivez-vous un petit message pour me dire si vous avez accepté.

De Rayon de Soleil,

Merci pour lui prendre!

REPLY FROM CLASS IN THE WORLD

Dear Rayon,

Chère classe de Mlle...,

Je m'appelle Rayon de Soleil. J'habite aux Canada. Je veux te donner Tintin Plat. Il veux vous visiter pour 7 jour. Est-ce que tu peux lui donner aux personnes de ta classe pour prendre a leurs maison, et s'il vous plait, est-ce que ta classe peux faire un journal pour lui? Tu peux me donner les journaux à cette adresse:

J'espère que vous allez accepter Tintin Plat... Écrivez-vous un petit message pour me dire si vous avez accepté.

De Rayon de Soleil,

Merci pour lui prendre!
<table>
<thead>
<tr>
<th><strong>Week 7</strong></th>
<th><strong>Nov. 1999</strong></th>
<th><strong>Continue keyboarding. Teacher or parent</strong></th>
<th><strong>Most students reach lesson 4 or 5 and find</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication time</strong></td>
<td><strong>volunteers supervise and support.</strong></td>
<td><strong>it very challenging. They begin to lose</strong></td>
<td><strong>All three groups of students have received</strong></td>
</tr>
<tr>
<td><strong>allocation:</strong></td>
<td></td>
<td><strong>interest, having had to repeat the lessons</strong></td>
<td><strong>a reply and are writing back as a small</strong></td>
</tr>
<tr>
<td><strong>approximately 30</strong></td>
<td></td>
<td><strong>several times in order to be successful.</strong></td>
<td><strong>group. Group members take turns typing</strong></td>
</tr>
<tr>
<td><strong>minutes a day, twice</strong></td>
<td></td>
<td></td>
<td><strong>into the computer.</strong></td>
</tr>
<tr>
<td><strong>during the week.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E-mail messages</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>sent this week:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PEER EDITED SMALL GROUP MESSAGE SENT TO ITALY**

**Bonjour!**

*On est dans la classe de Mlle Robertson. On est dans l’école Whiteoaks. Nous avons 7 ans et 8 ans. Dans notre petit groupe, il y a 2 élèves de 2e et 6 personnes de 3e année. Nous dirons pas les noms pour maintenant... Nous allons utiliser des numéros et des codes.*

*On apprend l’anglais et le français dans la classe. On apprend beaucoup de poèmes et de chansons. On a aussi un ami spécial qui s’appelle Stanley. Il est de papier.*

*Qu’est-ce que tu fais dans ta classe? Est-ce que tu aimes ton professeur? Est-ce que tu as une grande classe ou une petite classe? Est-ce que tu aime ton classe?*

*On aimerait connaître mieux toi. Est-ce que ton classe peut nous écrire un message...*

**Sincèrement,**

**Un petit groupe d’élèves de la classe de Mlle Robertson.**

**REPLY FROM ITALY**

*Chers enfants,*

*excusez nous pour le retard, mais nous avons reçu toutes les correspondances en même temps et ça nous a occupé beaucoup, en plus, nous les maîtres on a été détachés de l’enseignement pendant une semaine et ce fait a ralenti beaucoup le travail.*

**F. et M.**

*Bonjour, chers amis*

*Nous sommes les élèves des classes de quatrième A et B de l’école publique. Notre ville se trouve dans le nord de l’Italie. Nous avons envie de communiquer avec d’autres enfants dans le monde.*

*Nous sommes trente un élèves : seize filles et quinze garçons, âgés de huit à douze ans. Nous avons quatre institutrices de classe et une enseignante de religion catholique; nous avons aussi un instituteur. Dans notre école il y a neuf classes d’élèves; nous avons une salle de musique, un laboratoire d’informatique avec cinq ordinateur, une bibliothèque avec la télévision, une salle avec la photocopieuse et un laboratoire pour faire du bricolage, avec beaucoup d’outils*  

*Nous avons des cour de français le mardi, le jeudi et le vendredi. Tous les mercredi les deux classes se réunissent pour faire un conseil. Nous jouons de la flûte et nous aimons la musique. Pendant la récré on fait du bricolage, de la musique et de la psychomotricité, comme ni êtes-vous organisés ? Dans la prochaine lettre nous vous expliquerons mieux où nous vivons.*

*A bientôt!*

**Les élèves de quatrième**
Week 8
Nov. 1999

Communication time allocation:
Approximately 40 minutes
twice this week.

E-mail messages sent this week: 6

Keyboarding is getting very frustrating. As a class, we decide that keyboarding will become an optional activity but students will still be encouraged to type in at least part of their work themselves before seeking help to complete the work.

Flat character exchanges.

Small group exchanges continue. The topic is the description of a school day and Science learning project about animals (Grade 2) and Marble Maze (Grade 3).

Only the students interested in continuing go to the computer. Approximately 85% of the students stop going.

A few students continue to send and receive messages related to Flat Stanley. Many students haven’t received any messages and are losing interest in the project.

Students are writing as a group, but some of them request switching from group to individual exchanges with the European students.

TEACHER EDITED COPY OF JENJAN’S FLAT CHARACTER MESSAGE TO HIS MOTHER

Bonjour Maman,
Comment ça va?

Je vais envoyer Bugs Bunny Plat à toi, parce que je veux qu’il voit qu’est-ce que tu fais à ton travail. Clique sur « attachement » pour voir Bugs Bunny Plat.

J’espère qu’il va passer du bon temps avec toi et j’espère que tu prends bien soin de lui. J’aimerais que tu écrives un journal des activités que tu as faites avec tes aventures de Bugs Bunny Plat. S’il vous plaît, retourne-le moi dans 1 jour.

JenJan (ton garçon qui est en 3e année)

REPLY FROM MOTHER

Subject: Re: voyage de Bugs Bunny Plat

Bonjour JenJan !

Bugs Bunny Plat spent several days with me at the office. He was very happy to find that my office is in the CTV building and is part of the Eaton’s Centre. I had a hard time keeping Bugs in the office and away from all the Christmas shoppers!

On Dec. 9 & 10 Bugs and I travelled to Ottawa and while I attended meetings, Bugs explored the downtown area and parliament buildings – he did not see Jean Chretien but he did see many colourful Christmas lights on the federal buildings.

Unfortunately, the Canal had not yet been frozen for winter skating but Bugs had fun eating carrot cake and sipping cocoa. I had fun with Bugs. I hope he can come and visit again soon.

Note: Check out the photos of Bug’s visit.

Love Mum.

Bonjour Maman,
Comment ça va?

Je vais envoyer Bugs Bunny Plat à toi, parce que je veux qu’il voit qu’est-ce que tu fais à ton travail. Clique sur « attachement » pour voir Bugs Bunny Plat.

J’espère qu’il va passer du bon temps avec toi et j’espère que tu prends bien soin de lui. J’aimerais que tu écrives un journal des activités que tu as faites avec tes aventures de Bugs Bunny Plat. S’il vous plaît, retourne-le moi dans 1 jour.

JenJan (ton garçon qui est en 3e année)
Keyboarding has become an optional activity that students can go to when they have free time.

A few students continue to practice their skills.

Students are still encouraged to establish "Flat Character" communication. This component of the project is ranking 2nd in priority after the Europe group exchanges.

Approximately 50% of the students are still trying to exchange messages related to Stanley and Friends. Remaining students haven’t had enough success to stay motivated.

E-mail messages sent this week: 11

Europe group exchanges - students are still encouraged to maintain communication with our partners.

One of the France groups is not replying to our messages. Students are getting discouraged. The other France and Italy groups are still writing to us, but not as frequently as we would like.

Individual exchanges are beginning. Each student receives an introduction letter from a keypal from one of the France classes. This project will be our priority in the next few weeks.

Students have started preparing a reply for their keypal. Most write their draft on paper and then type it into the e-mail software. Some students are given the opportunity to compose at the computer.

---

**TEACHER EDITED SMALL GROUP MESSAGE SENT TO ITALY**

Bonjour!

Comment ça va?

Pardonnez-nous le retard... Le « document publisher » que nous avons préparé est trop grand et on doit trouver une autre solution pour vous le faire parvenir...

En attendant, voici des photos de notre cour d’école... Vous recevrez bientôt une description et un texte avec plus de détails.

Donnez-nous des nouvelles s’il vous plaît!

A bientôt!

Les élèves de Mlle Robertson
### Week 10  
**December 1999**

**Communication time allocation:**  
Approximately 40 minutes  
four times this week.

**E-mail messages**  
Sent this week: 21

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Students' Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboarding</td>
<td>Keyboarding is still an optional activity that students can choose when they have free time.</td>
<td>Just a few students continue with the keyboarding lessons.</td>
</tr>
<tr>
<td>Flat Character communication</td>
<td>Flat Character communication is becoming an optional activity.</td>
<td>Just a few students continue sending and receiving Flat character messages.</td>
</tr>
<tr>
<td>European Group Exchange</td>
<td>European Group Exchange - groups are encouraged to continue to exchange communication with our partners.</td>
<td>Only 2 classes (France and Italy) have been writing back.</td>
</tr>
<tr>
<td>Individual keypals exchange</td>
<td>Individual keypals exchange is our priority activity. Students are encouraged to exchange information about family traditions and physical environment of their school, home and community.</td>
<td>Students are enjoying the exchanges. They send or receive approximately one message or more per week. They exchange information about their life as well as their school projects.</td>
</tr>
</tbody>
</table>

### Week 11  
**Dec. 1999**

**Communication time allocation:**  
Approximately 40 minutes  
three times this week.

**E-mail messages**  
Sent this week: 13

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Students' Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboarding</td>
<td>Keyboarding is still an optional activity that students can go to when they have free time.</td>
<td>Two or three students actually choose this activity when they have free time.</td>
</tr>
<tr>
<td>Flat Character project</td>
<td>Flat Character project is on hold for the holidays.</td>
<td></td>
</tr>
<tr>
<td>European Group exchange</td>
<td>European Group exchange is on hold for the winter holidays.</td>
<td></td>
</tr>
<tr>
<td>Individual keypals exchange</td>
<td>Individual keypals exchange are still the priority. Students are encouraged to inquire about the way that their France friends will celebrate Christmas and other winter holidays (Social Studies).</td>
<td>Many students have received replies to their messages and are continuing to prepare their drafts on paper before typing into the software. Five students are chosen to compose directly on the computer because of their ability to type quickly and independently.</td>
</tr>
</tbody>
</table>

**PEER EDITED SMALL GROUP MESSAGE TO ITALY**

Bonjour!  
avez-vous recu des messages de nous?  
Avez-vous reçu nos photos de l'école?  
Nous avons eu quelques problemes, mais nous pensons que c'est réussi...  
On espère recevoir des nouvelles bientot!  
La classe de Mlle Robertson

**MESSAGE RECEIVED FROM ITALY**

Chers amis  
excusez-nous du retard, mais nos ordinateurs sont encore contaminées, comme ça le travail est plus difficile.  
Nous souhaitons un Joyeux Noël et bonnes fêtes à tous les enfants de la classe, à leur famille et à la maîtresse.  
Tous nos voeux de santé pour la nouvelle année.  
A très bientôt.  
Les enfants des classe de 4ème
<table>
<thead>
<tr>
<th>Week 12</th>
<th>January 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual keypals exchanges - students are encouraged to renew their communication with their keypals, especially those students who did not receive a reply before the holidays.</td>
<td>Most students are preparing draft messages on paper. The same 5 students are invited to continue composing on the computer, and to help other students with their typing.</td>
</tr>
<tr>
<td>Communication time allocation:</td>
<td>E-mail messages sent this week: 18</td>
</tr>
<tr>
<td>Approximately 40 minutes</td>
<td></td>
</tr>
<tr>
<td>three times this week</td>
<td></td>
</tr>
<tr>
<td>E-mail messages</td>
<td></td>
</tr>
<tr>
<td>Sent this week: 18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 13</th>
<th>Jan. 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual keypal exchanges - students are still encouraged to discuss holidays and traditions from France and Canada.</td>
<td>Students continue to prepare messages and replies for their keypals. The same 5 students are composing on the monitor, and 5 additional students are invited to try to compose on screen.</td>
</tr>
<tr>
<td>Communication time allocation:</td>
<td></td>
</tr>
<tr>
<td>Approximately 40 minutes</td>
<td></td>
</tr>
<tr>
<td>three times this week</td>
<td></td>
</tr>
<tr>
<td>E-mail messages sent this week: 9</td>
<td></td>
</tr>
</tbody>
</table>
Week 14
Jan. 2000

<table>
<thead>
<tr>
<th>Communication time allocation:</th>
<th>Individual keypal Exchanges - students are encouraged to discuss their current Science and Technology projects (car design) with their keypals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximately 40 minutes</td>
<td>French Social Studies group research related to important community members and their contributions.</td>
</tr>
<tr>
<td>three times this week</td>
<td></td>
</tr>
</tbody>
</table>

E-mail messages sent this week: 9

<table>
<thead>
<tr>
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<td>Approximately 40 minutes</td>
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<tr>
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E-mail messages sent this week: 15

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E-mail messages sent this week: 9

**INDIVIDUALLY EDITED MESSAGE FROM STUDENT TO CITY MAYOR**

Bonjour madame mayor,

Je suis un garçon de Grade 2 de ta ville. Je fais une recherche de toi. J'ai voir de l'information sur internet mais j'ai des question pour toi. Quelle place tu est birth? Comment s'appelle ton parent? Est-ce que tu parle francais?

Silvousplai ecris moi pour les rep-onses

C.A.

**REPLY FROM THE MAYOR’S OFFICE**

Dear C.A.

I am helping the mayor with her mail today and would be pleased to answer all your questions... However, I do not speak French. Could you please send us another copy of your message in English?

Sincerely,

The Mayor's Assistant

Week 15
February 2000

<table>
<thead>
<tr>
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<td></td>
</tr>
</tbody>
</table>

E-mail messages sent this week: 9
<table>
<thead>
<tr>
<th>Week 16</th>
<th>Individual keypal Exchanges - open discussion topic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 2000</td>
<td>Students continue to prepare messages and replies for their keypals. The same 10 students are composing on the monitor, and 5 additional students are invited to try to compose on screen.</td>
</tr>
<tr>
<td>Communication time allocation:</td>
<td>French Social Studies group research continues.</td>
</tr>
<tr>
<td>Approximately 40 minutes four times this week</td>
<td>Students are finalizing their research projects and some are e-mailing thank you messages.</td>
</tr>
<tr>
<td>E-mail messages sent this week: 15</td>
<td>One of our students is on a family trip for a week and writes to his classmates.</td>
</tr>
</tbody>
</table>

**E-MAIL MESSAGE FROM #6 TRAVELLING WITH HIS FAMILY**

A la classe de mlle. Robertson,

Bonjour c'est A.D. ici.

Quand j'ai arrivé à l'aéroport je suis aller sur un avion. Quand j'ai débarquer de l'avion je suis aller sur une autre avion qui est plus petit. Quand j'ai débarquer de l'avion à Bathurst j'ai vu mes grand-parents. Il fait froid a Bathurst. Ce soir je va voir un jeu de hockey.

Au revoir!

A. D.
Week 17
Feb. 2000

Communication time allocation:
Approximately 60 minutes
four times this week

Total communication minutes allocated to the entire project:
1810 minutes

E-mail messages sent this week: 19

** IMPORTANT NOTE

Although the data collection process stops at this point, students are invited to continue to communicate with their keypals, and to use the Internet to access people and information for school related projects.

Table 2
Messages Sent and Communication Minutes Allocated

<table>
<thead>
<tr>
<th>Week/Groups</th>
<th>Grade 2 Boys</th>
<th>Grade 2 Girls</th>
<th>Grade 3 Boys</th>
<th>Grade 3 Girls</th>
<th>Collective messages</th>
<th>Total per week</th>
<th>Weekly Minutes allocated to communication activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<td>4</td>
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<td>6</td>
<td>8</td>
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<tr>
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<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>11</td>
<td>120</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>21</td>
<td>160</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>13</td>
<td>120</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
<td>5</td>
<td>1</td>
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<td>1</td>
<td>18</td>
<td>120</td>
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<td>13</td>
<td>1</td>
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<td>14</td>
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<td>3</td>
<td>2</td>
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<td>120</td>
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<td>15</td>
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<td>15</td>
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</tr>
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<td>3</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>15</td>
<td>160</td>
</tr>
<tr>
<td>17</td>
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<td>4</td>
<td>3</td>
<td>6</td>
<td>2</td>
<td>19</td>
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<td>Total</td>
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<td>41</td>
<td>27</td>
<td>45</td>
<td>32</td>
<td>173</td>
<td>1810</td>
</tr>
</tbody>
</table>

Note: Collective messages were created during small group or whole class activities.

* n = 5. ** n = 4. *** n = 5. **** n = 4
3.5 The Micro Level: Portrait of Four Students from the Experimental Group

The present research project involved a total of 50 participants: 18 students were members of my Grade 2 and 3 combined classroom, while the others were pupils in the two participating control classes. Although the data items for these participants were collected individually, the elements have been regrouped, analyzed and compared in order to investigate the difference between the output between of the control and the experimental groups. These macro-level results are presented in the next two chapters.

In an attempt to further investigate the influence of e-mail on students' attitudes and writing development, I examined the individual variation between pre- and post-data of the participants. I selected four students from the experimental group of 18 participants. Chapters 4 and 5 will offer tables of group results as well as specific tables of results focusing on the individual results of these four participants. In the next pages, these four students are introduced and individual writing samples are provided. Note that the samples are published as the children wrote then and errors have not been corrected.

Tim

The first participant I would like to introduce is a young boy from the Grade 2 cluster. His name is Tim. Tim was one of the youngest boys in the class. He was not a very confident boy because he did not believe he knew enough French to speak in front of his friends and teacher. Although his friends and I encouraged him, Tim was still not a very active participant. He spent most of his cooperative time listening to his partners or talking and participating in English (although he was
supposed to speak French). Because of his restricted oral French participation in our program, his French oral language skills remained somewhat underdeveloped. Tim enjoyed coming to school, mostly for the social aspect, especially recess. He spent recess playing and was regarded by his friends as a very good and popular player. In the computer domain, Tim loved to use math software programs, and play interactive games on the Internet. He had limited access to a computer at home and wasn't comfortable with the basic functions of word processing. When given the choice, he preferred to work at the computer with a partner and consistently chose peers that he had identified as word processing experts. Regular communication was established with Tim's family from the beginning of the year. He was a clever boy who was aware of, and bothered by his stagnating abilities and the other pupils' growing skills. He looked sad and seemed not to feel good about himself.

To my delight, when Tim came back to school in the New Year, he was determined to talk more. His French participation in small group discussion increased, and he began to demonstrate more confidence in himself. Everyone recognized his increased participation and Tim seemed to enjoy schoolwork. By the end of the year, Tim had demonstrated improved oral skills and regularly and voluntarily participated in small and whole group activities. Most importantly, he seemed to like himself and feel proud of his achievement!
**COPY OF A STRING OF MESSAGES EXCHANGED BETWEEN TIM (GRADE 2 BOY CODE NAME T) AND HIS FRENCH KEYPAL.**

<table>
<thead>
<tr>
<th>Week 9: Teacher edited copy of a message written by Tim.</th>
<th>Week 11: Keypal writes back to Tim.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bonjour,</strong>&lt;br&gt;Je m'appelle T. J'ai 7 ans. Je n'aime pas beaucoup l'école. J'aime la construction et aussi les jeux de batailles navales. J'aime beaucoup le hockey et aussi le basketball.&lt;br&gt;J'ai 2 sœurs aussi! J'aime jouer avec Play Station. Mon jeu favori est Star Wars.&lt;br&gt;Est-ce que tu aimes les Pokémons? Est-ce que tu aimes les Digimon?&lt;br&gt;Écris-moi bientôt! T.</td>
<td><strong>Cher ami T,</strong>&lt;br&gt;Que signifie ton nom de code ?&lt;br&gt;Est-ce que tu as choisi ton nom de code ?&lt;br&gt;Qu'est-ce que les DG mons?&lt;br&gt;Aime-tu les pokémons ? Moi, je n'aime pas les pokémons.&lt;br&gt;Mon jeu préféré ses GPolice. Je l'aime bien car il est dur et comme sa je ne m'ennuie pas.&lt;br&gt;Aimes-tu ta classe ? Que fais-tu dans ta classe ?&lt;br&gt;Aime-tu ton professeur ? Est-ce que ta classe est grande ou petite ?&lt;br&gt;Au revoir !&lt;br&gt;Écris-moi bientôt.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 12: Peer edited copy of message written by Tim</th>
<th>Week 15 Peer edited copy of another message written by Tim</th>
</tr>
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<tbody>
<tr>
<td><strong>Cher ami,</strong>&lt;br&gt;J'ai reçu ta lettre merci! Qu'est-ce que c'est G-POLICE?&lt;br&gt;Est-ce que tu aime le hockey? Est-ce que tu joue au hockey?&lt;br&gt;Au revoir Ton ami.</td>
<td><strong>Cher S,</strong>&lt;br&gt;Les digimons sont des petit chose qui s'appelle des digital monsters. Je suis allé a une partie de Icedogs, C'est une equipe de hockey. J'ai vu mon ami J.&lt;br&gt;Quelle est /quipe de Hockey pour la place que tu vi?&lt;br&gt;A bientôt!</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Week 16: Keypal replies to Tim</th>
<th>Week 17: Individually edited copy of message prepared by Tim, typed directly into the e-mail software.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cher T,</strong>&lt;br&gt;1 G-Police est un jeu de Play station. tu es un agent secret est tu dois detruire tout les vaisseaux aliens, puis tu dois aussi découvrir des armes.&lt;br&gt;2 Je ne sais pas, je n'est jamais regarder ce qu'était le hockey.&lt;br&gt;3 Non je ne joue pas au hockey.&lt;br&gt;As-tu des frères et sœurs ?&lt;br&gt;A bientôt&lt;br&gt;Ton ami S.</td>
<td><strong>Cher S,</strong>&lt;br&gt;C'est moi, numer 6. C'est pas mon nom. Je ne pe pas dire mon nom a toi. Mon chose special est joué au hockey, le soccer et le castor. J'ai 7 ans. J'abite a M... Je n'aime pas moi beaucoup. Mon are chose special est regard le télévision.&lt;br&gt;Sa ses t,&lt;br&gt;Au revoir de T.</td>
</tr>
</tbody>
</table>
Caroline

The second student is also from the Grade 2 group. Her name is Caroline. Caroline had a strong sense of who she was, and of what she was able to do. She was a highly motivated student, who already knew, at 7 years old, that she had to work hard to succeed. She loved school, put a lot of effort into her work and persevered even in times of trouble. Caroline enjoyed working on the computer, especially when creating stories or designing drawings and patterns using various software programs. She had access to a computer at home but wasn't very familiar with the word processing fundamentals such as saving documents, printing, changing fonts, and therefore was not very comfortable using it.

Caroline enjoyed participating in small group and whole class discussion and projects, and her oral language skills improved on a daily basis. Because of her hard work and active participation, Caroline also developed strong reading and writing skills in both languages. Finally, Caroline was a respected and popular friend of the other girls in the classroom.
COPY OF A STRING OF MESSAGE EXCHANGED BETWEEN CAROLINE (OUR GRADE 2 GIRL CODE NAME C.) AND HER FRENCH KEYPAL.

| Week 10: Teacher edited copy of a reply by Caroline | Chère M.  
Il y a 11 élèves de 2e et 10 de 3e. Dans la classe nous faisons beaucoup de vocabulaire, et mathématiques et beaucoup de choses.  
Combien de filles et garçons sont dans ta classe? Est-ce que tu aimes les chevaux?  
Écris-moi bientôt! Au revoir! C. |
| --- | --- |
| Week 12: Message received from keypal | Chère amie,  
J'ai un frère: il a 11 ans, sa fête était le 18 novembre.  
Je réponds à tes questions: 1. Il y a 11 filles et 11 garçons dans la classe. 2. Oui, j'aime beaucoup les chevaux. 3. Oui, j'aime mon professeur.  
Au revoir. Écris-moi bientôt! M. |
| Week 13: Draft individually edited copy of a reply by Caroline | Chère [blurred],  
J'ai a u 8 ans hier le 23 janvier 1992. Je fais la danse comme deux classes de Jazz un Classe de Tap un Classe de acro et deux Classe de ballet et aussi le piano. Mes classe favorit dans la classe sont air les histoire, les les mathématique et faire le temps libre à: un Soir qui s'appelle [blurred] elle est 12 ans maitre race que Sa fête est le 14 novembe.  
À bientôt |
| Week 14: Message received from keypal | Chère amie  
Tout mes amis de la classe m'on posé des questions : qu'est ce que c'est du Jazz, du tap, de l'acro et du ballet. Dans la classe ce que je préfère, c'est d'écrire des histoires. Qu'est ce que c'est du temps libre. J'aimerais beaucoup savoir ton nom. Ou envoie-moi une photo de toi. Cela m'aidera. J'ai eu un nouveau chien, il s'appelle Sam.  
Questions: Aimes-tu les chiens et les chats?  
Comment s'appellent tes copains et tes copines?  
J'espère que-tu vas bien.  
Au revoir M. |
| Week 17: Individually edited copy of message prepared by Caroline, typed directly into the e-mail software. | Chère M,  
C'est moi, ton ami C. Comment ca va? Je suis tres bonne. J'ai ecrir de lettre parce que veux encore fait les lettres et aussi je veux demander si tu veux encore fait des lettres et pour dire les nouvelles. La premiere chose est que je vais aller en vacance de ski pendant la semaine de relache pour 3 jours. Je vais fait la motoneige avec ma famille et ensuite je pense que je vais aller a hawaii pendant les vacances d'ete. Qu'elle est tes nouvelles? Je hate de recevoir de tes nouvelles.  
Sincereement, ton ami C. |
Frederic

Frederic was a very smart and capable Grade 3 boy. He worked hard to complete assignments and self-initiated projects. Frederic loved working on the computer, both at home and in the classroom. He often presented book reports published on the computer, regularly volunteered to assist others with the word processing program, enjoyed surfing the Internet, and used the various Math software packages installed on the classroom computers.

Frederic was a very active and confident participant in any discussion; always ready to share his knowledge and opinions. His overall language and math skills consistently improved throughout the year. For some reason, that I do not clearly understand, Frederic was not always a popular boy among his peers. Although his classmates were rarely mean to him, he would often have difficulty finding a “happy” partner. This situation was resolved over time, through regular discussion with Frederic, his family and his peers.
COPY OF A STRING OF MESSAGES EXCHANGED BETWEEN FREDERIC (GRADE 3 BOY CODE NAME PANTHERE) AND HIS FRENCH KEYPAL.

<table>
<thead>
<tr>
<th>Week 10: Teacher edited copy of a reply by Frederic</th>
<th></th>
<th>Week 12: Message received from keypal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 14: Draft individually edited by Frederic</td>
<td></td>
<td>Part 1</td>
</tr>
<tr>
<td>- Est-ce que je peux manger mon Wayne Gretzky panda à toi? - Quel âge as-tu? - Est-ce que tu aimes Pokémon si tu ne n'est pas parce que les Pokémon, nous écris à moi.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.</td>
<td></td>
<td></td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Week 16: Individually edited copy of message prepared by Frederic, typed directly into the e-mail software.</th>
<th>Week 16: Individually edited copy of message prepared by Frederic, typed directly into the e-mail software.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cher G. C'est moi, ton ami Panthére! Comment cava? J'ai les bonnes nouvelles. La semaine passer, je suis aller a un parte de hockey. Je suis aller sur C.B.C. et aussi peut-être va aller a la Suisse. Combien de personnes habite a France? Quand est-ce-que tu celebrate la Saint-Valentin? S'il te plait ecrire a moi plus toi Sincèrement, Panthère</td>
<td></td>
</tr>
<tr>
<td>G.</td>
<td></td>
</tr>
</tbody>
</table>
Nathalie

The last participant that I will introduce is Nathalie. The oral language skills of this Grade 3 girl were developing nicely and she seemed able to connect existing and newly acquired language structures together. She regularly participated in cooperative group or class discussions. Nathalie was a very polite and respectful friend to everyone. She was always nice to her friends and often volunteered to help classmates and teachers. Because her oral skills were strong, creative writing was always a pleasant activity for Nathalie. However, she was aware of her difficulty in applying phonic and language conventions. She often relied on peer or teacher support as she revised or edited her written “chef-d’œuvres.” Although she needed more time to type her work in the computer than hand write it, she particularly enjoyed publishing stories on the computer because it was a more efficient way to get a good copy without showing her mistakes.
**COPY OF A STRING OF MESSAGES EXCHANGED BETWEEN NATHALIE (GRADE 3 GIRL CODE NAME C9) AND HER FRENCH KEYPAL.**

<table>
<thead>
<tr>
<th>Week 10:</th>
<th>Teacher edited copy of a reply by Nathalie</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Week 12:</strong></td>
<td><strong>Message received from keypal</strong></td>
</tr>
<tr>
<td><strong>Parent volunteer edited copy of a reply by Nathalie</strong></td>
<td><strong>Week 14:</strong></td>
</tr>
<tr>
<td><strong>Individually edited copy of message prepared by Nathalie, typed directly into the e-mail software.</strong></td>
<td><strong>Week 15:</strong></td>
</tr>
</tbody>
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**Chère Josie,**


Dans ma classe il y a 21 personnes, et il y a 6 Stanley. Un est très grand, les autres sont petits. Vraiment je n'aime pas Stanley beaucoup maintenant.

*Quel âge as-tu? Est-ce que tu as des frères ou des sœurs? Si oui, quel âge ils ont? Est-ce que tu peux m'écrire?*

De C9

**Chère C9,**


Moi aussi j'ai quelques questions à te poser : Comment s'appelle ta sœur? As-tu des animaux? Qui est Stanley?

A bientôt!

J.

**Bonjour mon amie J.**


Stanley est un personnage de livres. Il est dans un livre qui s'appelle Flat Stanley, mais c'est en anglais. L'histoire est que dans la nuit, un grand babillard est tombé sur lui quand il dormait et il est devenu pal. A la fin, son frère le gongoile et il revient normal. Il y a un autre livre qui s'appelle Stanley disparu. C'est encore en anglais.

Quels sont les noms de tes frères et sœurs?

De ton ami C9

**Bonjour mon amie J.**

Je n'ai pas reçu un lettre. Il y a les nouvelles choses sur moi et ma famille. Le premier choses que je veux dire est que je suis aller à le docteur des yeux. C'est tout bien je n'a pas besoin de lunettes. Mais mon papa a les lunettes et il ecot pas la plus bien.

Maintenant je vais dire les choses qui ne sont pas tres bon. Peut-etre on va demenager mais je ne veux pas parler de ca.

Je t'ecris ce message pour te demander pourquoi tu n'a pas ecris. J'aimerais que tu repond a quelques questions. Qu'elle est ton sport favorite? Qui est ton meyeure amie ou amis? Qu'elle jour est ta fete? Qu'elle est ton saison favorite? Pourquoi ce saison est special pour toi? C'est que c'est ton hymne national.

C'est ton amie C9.
The purpose of this chapter was to introduce myself as the teacher-researcher, our French immersion program structure, the activities of the research project, and to provide a more detailed portrait of some of the participants. The chapter was designed to help the reader understand the chapters ahead where numerous tables will be presented.
Chapter Four

Research Findings - Attitudes Towards Writing

4.1 Introduction

This chapter focuses on describing the way in which the attitudes of the participating children changed from Week 1 to Week 17. Specifically, I was interested in whether e-mail, taught as a process writing activity, would have any impact on the children's motivation and perceptions of writing. This chapter compares the Week 1 and Week 17 results of a questionnaire designed to assess writers' perceptions, motivation and preferences. Changes in attitudes of all 50 participants from the control and experimental groups are assessed.

4.2 The Attitude Questionnaire

The first section of the questionnaire collected background information on the students, such as their date of birth, e-mail access at home. In the second section, I was interested in determining student preferences related to writing in English and French. I wanted to know whether they liked writing, whether they found it easy, whether they preferred to write alone or with partners, and finally, whether they thought they were good and why. The third section concentrated on the process approach to writing as I tried to find out which steps of the process of writing the students valued. Finally for the fourth section, using the same structure of questions as Section two, I investigated the participants' attitudes towards writing at the computer.

Although data were collected for a total of 25 questions, a selection of 11 questions was retained for analysis and presentation in this chapter. I discarded some questions because of their
redundancy while other questions simply collected details about various aspects of writing as a process.

The same questionnaire was administered to the experimental and control groups at the beginning (Week 1) and at the end (Week 17) of the project. The Control Grade 2(C2) was compared to the Experimental Grade 2 (E2), and the Control Grade 3(C3) was compared to the Experimental Grade 3(E3). The results of the perceptions, motivation and preferences of students towards writing will be presented in two main sections. In the first section, the Week 1 and Week 17 attitudes towards writing in English and in French will be contrasted across groups. The following section describes any changes in the children’s attitudes towards writing at the computer. Also, the relationship between preferences regarding collaboration and writing is examined. Finally, the impact of gender on the results is addressed.

The responses to the items were analyzed by group for both the Week 1 and Week 17 questionnaires. For each response, the percentage of children selecting that response was calculated. Chi-square analyses were conducted on both Week 1 and Week 17 responses to determine whether there were significant differences between each group.
4.3 Attitudes Towards Writing in English and in French

In Figure 1, the Grade 2 Week 1 questionnaire results indicated that there were no significant difference between the experimental and control groups in their preference for writing in English. However, the Week 17 results show a significant difference in attitudes between the Grade 2 experimental group compared to the Grade 2 control group (p < 0.05). This indicates that there was a shift in attitudes for only the experimental group. A close examination indicates that more children from that group responded that they liked writing 'a lot' at Week 1 but responded at Week 17 that they liked writing 'a little'. This reduction in enjoyment may have been due to the fact that I expected the Grade 2 to write frequently. Creative writing can be effortful. Based on my experience as a teacher, students tend to prefer simple and repetitive
activities as they find them easier. In contrast, the control Grade 2 writing activities were very structured, based on repetitive phonics skills and on copying words to create sentences, and thus perceived as easier and therefore more enjoyable.

For the Grade 3 students, the results do not indicate a statistical difference between the Grade 3 groups (p > 0.05). It is interesting to note that on the Week 17 questionnaire, all of the Grade 3 students in the experimental group answered that they liked writing in English 'a lot'. When one compares these results with the Grade 2 results, it is possible to conclude that the Grade 3 students felt more prepared for these challenging writing tasks.

**Figure 2.** Sample of participants from the experimental group.

B2=Boy Grade 2, G2= Girl Grade 2, B3=Boy Grade 3, G3=Girl Grade 3.

Figure 2 presents data at the micro level based on answers offered by the four students from the experimental group. When analyzing Grade 2 students' scores more closely, we can see that there was an increase, for a small number of students like Tim, the Grade 2 boy. However, the majority of the students in the experimental group followed the descending pattern shown by Caroline, the Grade 2 girl. For Grade 3 students, the boys' results are a typical representation of
the increase that this group followed. Finally, Nathalie’s answer did not change, she liked writing 'a lot' in Week 1, and she still liked it 'a lot' at by the end of the project.

Do you like to write in French?

![Bar chart showing percentage of students' responses to writing in French by Week and Group.]

**Figure 3.** C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

At the Grade 2 level, when students were asked if they liked to write in French, results displayed in Figure 3 indicate a significant difference between the experimental and control groups (p<0.05). Significantly more students in the control group answered enjoying writing in French 'a lot' compared to the number of students in the experimental group for the same answer. It is possible that these results were influenced by the differences between types of writing activities presented in the two groups. As an immersion teacher, I have noticed that when activities are simple and easy, students tend to enjoy them more. In this case, activities in the control group were structured and repetitive (simple), as opposed to the activities in my class which were more
creative and process-oriented (more challenging). However, at the end of the 17 weeks, results evened out and no significant difference was found between these same two groups. In Grade 3, the results did not indicate a statistical difference between the two groups.

**Do you like to write in French?**

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<tr>
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<tbody>
<tr>
<td>A lot</td>
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<td></td>
</tr>
<tr>
<td>A little</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td></td>
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</table>

**Figure 4.** Sample of participants from the experimental group.
B2=Boy Grade 2, G2=Girl Grade 2, B3=Boy Grade 3, G3=Girl Grade 3.

The micro-level results displayed in Figure 4 are very encouraging. First, Tim has a change of mind about French writing, and based on his latest experiences, reported that he liked writing in French 'a little' at the end of the study. As for the other students, they are all reported great enjoyment towards French writing activities. This information helps us support the concept that French process writing activities can positively influence students' attitudes towards writing, even for students who initially did not like French writing at all.

### 4.3.1 Comparison Between Liking to Write in English and in French

In reference to Figures 1 and 3, the results for the Grade 2 students do not demonstrate a clear preference to write in English or in French. The Grade 3 students from the experimental and control groups clearly state their preference for writing in English rather than in French. It is
important to remember that although the Grade 3 students have had an extra year of English language experiences compared to the Grade 2 groups, French remains a second language and therefore the vocabulary is not as accessible as it is in English. In writing a story for example, a Grade 3 student is expected to provide a clear main idea and supporting details, organize the ideas in a coherent fashion, use more language conventions, in a more consistent way than in Grade 2 and all of that in French. In process writing, expectations are shared with the students as they pursue personal goals for improvement. Because students often prefer the simpler activities over the more challenging ones, and considering that French writing is likely to be more challenging than English writing, we may be able to attribute the difference in their preference to their perception that French writing expectations as more difficult in Grade 3, and therefore not as enjoyable.

Most Grade 2 and 3 girls reported similar to their response about writing in English: they enjoyed writing in French 'a lot'. On the other hand, there was a clear shift in the boys' attitudes towards writing in French. As the language changed, most of the other boys joined ranks of the experimental Grade 2 boys: most reported that they enjoy writing in French only 'a little' bit. This finding does not come as a surprise as second language educators have often reported girls' higher interest in learning and practicing a second language.
Do you think that writing in English is very easy, a little easy or hard?

Figure 5. C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1 = Week 1 and W17 = Week 17.

When asked if they thought writing was very easy, easy or hard, results presented in Figure 5 do not indicate a statistical difference between the control and experimental groups (p > 0.05). A good proportion of the participants in each group reported finding writing in English 'very easy' and no student, in any of the groups for either the Week 1 or Week 17 questionnaires reported finding writing in English too 'hard'.

However, in the Grade 3 control group, it is interesting to note the difference in students' answers; the top category 'very easy' lost a high number of students from the Week 1 to the Week 17 questionnaire. It is possible to argue that when asked the question in the October Week 1 questionnaire, students were still at the reviewing stage of the writing instruction, therefore finding writing relatively easy. By the second questionnaire, five months later, they had been challenged with various writing tasks and might have found writing more difficult.
Do you think that writing in English is very easy, a little easy or hard?

![Bar chart showing responses to the question](chart.png)

**Participants**
- Tim B2
- Caro. G2
- Fred. B3
- Nath. G3

**Figure 6.** Sample of participants from the experimental group.
- B2 = Boy Grade 2, G2 = Girl Grade 2, B3 = Boy Grade 3, G3 = Girl Grade 3.

At the micro-level, as shown in Figure 6, the Grade 2 boy remained consistent in his impression about writing in English, while the Grade 2 girl found writing in Week 17 easier than before. This could be due to increased self-confidence related to writing, or perhaps by Week 17, she was more accustomed to the writing tasks and felt supported in her writing. In Grade 3, the two students demonstrate mobility between categories. For Frederic, his impressions about writing in English improved. This could be due to the fact that he became more comfortable with his writing skills, or maybe he learned to enjoy the writing tasks more. As for Caroline, she did not think writing was that easy anymore. Maybe she chose 'very easy' at the beginning based on her prior experiences from Grade 2 (simple and repetitive tasks), and she realized the difference when faced with the Grade 3 expectations in our class (more creative and challenging).
Do you think that writing in French is very easy, a little easy or hard?

![Bar chart showing percentage of students' responses to the question about writing in French]

**Figure 7.** C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

When the students were asked if they thought French writing was very easy, a little easy or hard. (Figure 7) the results do not indicate a significant difference between the control and experimental groups (p> 0.05). Only one student in the Grade 2 experimental group found writing 'hard' at the end of the study whereas no one was in that category at the beginning. This could again be justified by the challenging tasks that the students were invited to complete. The Grade 3 experimental group results demonstrate a slight increase in the number of students who find it 'very easy' to write in French; such results could indicate that the Grade 3 students were possibly better prepared for the challenging tasks of telecommunications.
Do you think writing in French is very easy, a little easy or hard?

![Bar chart](image)

**Participants**

- Tim B2
- Caro. G2
- Fred. B3
- Nath. G3

If we take a closer look at the experimental group of students in Figure 8, we can see different types of variation in students’ attitudes. The results for the Grade 2 boy, Tim, are most interesting. As a Grade 2 student, Tim had come from a relatively positive and entirely French Grade 1 experience where every effort was consistently rewarded. Tim initially felt like an experienced writer and reported that writing in French was 'very easy', even easier than writing in English. However, Tim’s new Grade 2 writing challenges turned out to be quite different from his previous Grade 1 writing experiences. Although most days involved mini-lessons or opportunities to practice new concepts or vocabulary structures, the purpose of the Grade 2 projects was more communication oriented than in Grade 1, and Tim was required to use more creativity and problem-solving skills. Looking back at my observations and using his Week 17 questionnaire responses, I am not sure that Tim, as well as some of the other Grade 2 students, were ready for the challenging task of written communication in a second language. However, looking at the other Grade 2 student, Caroline, I also have the impression that some students were probably more ready than others. Is gender a key factor in the perceptions and attitudes...
towards writing? Further investigations would be required in order to better understand this difference.

4.3.2 Comparison Between What Students Think of Writing in English and in French

In the experimental group, although results show similar patterns between the Week 1 questionnaire for writing in English and French, the number of students who found writing 'very easy' were higher in English than in French and that difference did not change much from the beginning to the end of the project. Again, just as most of the students preferred writing in English, many of them found writing in English easier than in French. This finding probably does not come as a surprise to most French or second language teachers. In fact, attentive teachers hear and see evidence of this preference on a daily basis at most grade levels in French immersion programs. The reasons are twofold. First, when immersion students write in English, they can focus on the actual content of their message and they do not have to invest as much time and energy searching for or learning new words. Their vocabulary bank is simply much larger and more instantly accessible in English. Second, the students have much more exposure to English on a daily basis and they can usually find help or resources more readily when they write in English.

4.4 Collaboration and Attitudes Towards Writing

In a process-oriented approach to writing, students are provided with ample time and opportunity to work on their projects and develop their skills. As all students have unique and individual learning styles, an encouraging teacher and sometimes a parent volunteer were always present
during writing periods to provide support. Collaboration among peers was also valued as a primary resource for students.

When you write in English, do you prefer to work alone, with a partner or with a group?

![Bar chart showing preference for working alone, with a partner, or with a group among different groups.

Figure 9. C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

When students were asked if they preferred working alone, with a partner, or with a group, when writing in English, answers varied substantially within and between the groups. Looking at Figure 9, we can only notice a slight difference between the Grade 2 groups, where a few more students from the experimental group chose to write with a partner. Looking closely at the data for the Grade 3 groups, the results indicate a significant difference across groups (p < .05) as most of the students in the experimental groups preferred working with a partner while the students in the control group indicated their preference for individual writing. This difference between groups could be attributed to a variety of factors. As part of the process approach in the
experimental class. Consideration was given to teach students how to get the most out of working with each other and it seemed that such advantages might have positively influenced the experimental groups' preference. Was collaboration introduced, modeled and supported in the control classes? Was the preference for individual writing based on students' previous experiences or personality traits? Further investigation would be required to answer these questions.

**When you write in English, do you prefer to work alone, with a partner or with a group?**

![Bar chart showing preferences](chart.png)

**Participants**

- Tim B2
- Caro. G2
- Fred. B3
- Nath. G3

**Figure 10.** Sample of participants from the experimental group.

B2 = Boy Grade 2, G2 = Girl Grade 2, B3 = Boy Grade 3, G3 = Girl Grade 3.

At the micro level as seen in Figure 10, the 4 students selected from the experimental group are fairly representative of the group results presented in Figure 9. The Grade 2 students consistently chose to work with a partner, while Frederic, the Grade 3 boy, changed his preference from working with a group of his friends to working with one partner at a time. As shown in Chapter 3, we need to remember that Frederic was very confident in his abilities but often not a very popular choice among his peers. His changing preference from working with a small group to working with just one peer could be explained by a willingness to participate more actively in the discussions and thus to be considered more helpful within the team. Finally, Nathalie, the Grade
3 girl, changed her preference from working with a friend to working alone. This does not necessarily mean she does not appreciate teamwork; her decision could have been influenced by her increased self-confidence and ability to complete work more independently.

When you write in French, do you prefer to work alone, with a partner or with a group?

![Chart showing preference for writing in French]

**Figure 11.** C2 = Control group in Grade 2 (n=14). E2 = Experimental group Grade 2 (n=9). C3 = Control group Grade 3 (n=18). E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

Finally, the participants were asked whether they preferred writing in French alone or in collaboration with others (Figure 11). We see that the students in the Grade 3 control group continued to express their preference for individual work while a majority of the students in the other groups chose to write in French with a partner or a group. When comparing these results with Figure 9 results on collaboration and English writing, we observe that more students preferred to work with a partner or group when the writing task was in French. Based on the fact that writing in French is considered more difficult than writing in English (see Figures 5 and 7) it
is encouraging to see that language learners possibly recognized their need to work and support each other.

![Graph showing preferences for writing in French: Alone, With a partner, With a group]

**When you write in French, do you prefer to work alone, with a partner or with a group?**

- Tim B2
- Caro. G2
- Fred. B3
- Nath. G3

**Participants**

- pre Week 1
- post Week 17

**Figure 12.** Sample of participants from the experimental group.

B2=Boy Grade 2, G2=Girl Grade 2, B3=Boy Grade 3, G3=Girl Grade 3.

Finally, results presented in Figure 12 display the preferences of the four students on the Week 1 and Week 17 questionnaires. No major surprises were found when analyzing the data. Considering students' personalities, the most interesting case is Tim's. At the beginning of the project, Tim was very shy and did not talk much in French, as he felt his abilities were not at par with his peers'. Interestingly, when asked his preference regarding French writing, Tim answered he preferred working alone (so he would not have to talk in French). As the project developed, so did Tim's self-confidence. Feeling encouraged and supported by the teacher and his peers, he began to take more chances and therefore his oral language skills started to improve, so much so that by the time Tim completed the Week 17 questionnaire, he felt confident enough to enjoy working with a partner.

As for the other three students in Figure 12, we cannot help but notice their preference for collaborative work. Combining the results from Figures 2, 4, 6 and 8, it is clear that most
students enjoyed writing and found it at least 'a little' or 'very easy'. Because the students appreciated collaboration when tasks seemed challenging (Figure 12), we can argue that collaboration and process approach activities in the classroom can foster positive attitudes towards writing.

4.5 Attitudes Towards Writing at the Computer

The first section of this chapter presented participants' attitudes towards writing in English and in French. The results indicate that a collaborative and process writing environment positively influenced the attitudes towards writing of Grade 2 and 3 French immersion students. In this section, I present the results of the influence of e-mail writing activities within the same environment, and on the attitudes towards writing.

The choice of groups for this study was based on their similarities with each other. Indeed, the background information of participants for each group presented in Table 3 does not seem to indicate major difference across the groups. Approximately one third of the students' families had a computer at home, but only 1 or 2 students per group had been taught and were using the e-mail software from home.

Table 3. Participant data for each of the four study groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>E-mail access on home computer</th>
<th>Taught software and e-mails at home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2</td>
<td>8</td>
<td>6</td>
<td>71%</td>
</tr>
<tr>
<td>E2</td>
<td>5</td>
<td>4</td>
<td>67%</td>
</tr>
<tr>
<td>C3</td>
<td>8</td>
<td>10</td>
<td>67%</td>
</tr>
<tr>
<td>E3</td>
<td>5</td>
<td>4</td>
<td>67%</td>
</tr>
</tbody>
</table>

Note: Data collected from 'Background Section' of the Week 1 questionnaire
Another element that can possibly influence the perception and attitudes of students at the computer is their previous experience. From discussions with the teachers the participants had the previous year, I was able to obtain the following information:

Although the Grade 2 participants came from three different Grade 1 classes, they had all been exposed to very similar activities. During their Grade 1 year, all had received 40 minutes a week of instruction in the school lab from a computer specialist; all had access to at least one computer in their classroom; and, as part of a rotary system, pairs of students were encouraged to complete drawing, reading and math activities throughout the year.

Although the Grade 3 participants came from two different Grade 2 classes, again, they had all been exposed to very similar activities. During their Grade 2 year, all had received instruction from the computer specialist in the school lab, for approximately 40 minutes a week. All had access to at least two classroom computers. As part of a rotary system, individuals and pairs of students were encouraged to complete drawings, read and do math activities. These students were also introduced to basic word processing software and had learned to type short texts for publication purposes.

Although the drawing, reading and math activities sound the same for both grades, the teachers informed me that the levels were adapted to meet the particular grade level expectations. However, based on my teaching experience, these activities would be considered simple and structured, and therefore easier than a combination of word-processing and e-mail activities. Now it has been established that most of the participants received similar school computer
instruction, we are ready to begin the presentation of the results related to attitudes and writing on the computer.

**Do you like to write at the computer?**

![Graph showing the percentage of students who like to write at the computer by groups and time.]

**Figure 13.** C2 = Control group in Grade 2 (n=14). E2 = Experimental group Grade 2 (n=9). C3 = Control group Grade 3 (n=18). E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

When participants were asked if they liked writing at the computer, information collected from the Week 1 questionnaires indicated there was no significant difference across groups. In fact, the majority of the participants, boys and girls, very much liked to write at the computer. This preference did not significantly change over the course of this project. Finally, it is interesting to note that on the Week 17 questionnaire, with the exception of a few students from the Grade 2 control group, all of the participants reported enjoying writing at the computer at least 'a little' or 'a lot'.

At the micro level, participants in the experimental group represent an excellent sample of the group result displayed in Figure 14. We can see that 3 of the 4 students enjoy writing at the computer 'a lot', with the exception of Tim, the Grade 2 boy, whose opinion did not change over the course of the project, reporting his enjoyment towards writing at the computer as only 'a little'. As indicated in Figures 2 and 4, Tim never answered that he liked to write more than 'a little'. In this case, I am not sure if Tim's answer truly reflects whether or not he likes writing at the computer.

Based on Ministry of Education expectations, each teacher is responsible for the integration of computer technology in the classroom. As reported in the description of each participating teacher, the Grade 2 teachers did not have as much experience with computers as the Grade 3 teacher or myself. To support and minimize this gap between classes, I volunteered once a week in the Grade 2 class, and presented computer applications (except e-mail) to these students and their teacher. During the rest of the week, students in the Grade 2 control group were encouraged to spend time at the computer in order to practise and reinforce these new skills. In both Grade 3
classes. students received instruction and were provided with ample opportunity to practise their computer skills while using a variety of applications. In the control class, the emphasis was on developing the class website, while e-mail writing activities were the focus for experimental group.

Do you think that writing at the computer is very easy, a little easy or hard?

![Bar graph showing student responses to computer writing difficulty]

**Figure 15.** C2 = Control group in Grade 2 (n=14). E2 = Experimental group Grade 2 (n=9). C3 = Control group Grade 3 (n=18). E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

Considering the amount of instruction offered in each, when students were asked to rate their level of facility writing at the computer, no statistical difference was established across the 4 groups for the Week 1 and Week 17 questionnaires. Most students responded that writing at the computer was 'a little' easy or 'very easy'.

However, it is important to consider which activities the students were referring to when answering the question. As reported by the Grade 2 control teacher, most writing activities
consisted of creating short sentences or typing in short stories. While activities in both the Grade 3 control and experimental groups were more open-ended and required more creativity and problem-solving skills. Based on my teaching experience, if students have more access and therefore more experience with the computer, the teacher can present more challenging tasks and encourage students to take more risks. Because there were only two computers in the Grade 2 control class, the teacher may not have been able to provide enough time and computer access for the students, and as a result demanded less of her students and presented simpler activities. On the other hand, the Grade 3 control group and Grade 2 and 3 experimental groups had 5 machines in their classroom, enabling these teachers to provide a longer computer work period, and more frequent access for students along with more challenging projects. These elements combined may explain why more students in the Grade 2 control class considered writing at the computer 'very easy', as opposed to the students in the experimental groups.

At the end of the study, more students answered they found writing at the computer 'a little' easy. Considering the number of minutes, opportunities to practise and instruction received, we could have hoped that the students would have found writing on the computer easier on the Week 17 questionnaire. However, students did not indicate a change of perception, and this may be due to the fact that most of their writing tasks constantly required new knowledge and therefore students may have felt more challenged than when they simply used math or drawing software.
Do you think that writing at the computer is very easy, a little easy or hard?

Figure 16. Sample of participants from the experimental group.
B2=Boy Grade 2, G2= Girl Grade 2, B3=Boy Grade 3, G3=Girl Grade 3.

Figure 16 presents the micro-level results. Again, considering the instruction received and numerous opportunities provided, it would seem likely that all of the students would have positively changed their perceptions regarding writing at the computer between the Week 1 and the Week 17 questionnaires. Referring to these students' descriptions in Chapter 3. it is interesting to note that the two most confident students, Caroline and Frederic, were the ones who changed their perception from 'very easy' to 'a little' easy. Interviewing these children, asking them to explain their change of perception, would be required to understand this change.
How do you feel when you write at the computer?

Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>C2</th>
<th>C2</th>
<th>E3</th>
<th>E3</th>
<th>C3</th>
<th>C3</th>
<th>E3</th>
<th>E3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pre</td>
<td>post</td>
<td>pre</td>
<td>post</td>
<td>pre</td>
<td>post</td>
<td>pre</td>
<td>post</td>
</tr>
<tr>
<td></td>
<td>W1</td>
<td>W17</td>
<td>W1</td>
<td>W17</td>
<td>W1</td>
<td>W17</td>
<td>W1</td>
<td>W17</td>
</tr>
</tbody>
</table>

Figure 17. C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

As we have already established from Figure 13, most children enjoyed writing at the computer. It is important to remember that for most participants, this was the first year that the computer was used as a writing tool. Although most students did not find it 'very easy', the majority of the participants still indicated that they felt good and happy when they were writing at the computer. (Figure 17).

How do you feel when you write on the computer?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Happy/good</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bored</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frustrated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 18. Sample of participants from the experimental group.
B2=Boy Grade 2, G2= Girl Grade 2, B3=Boy Grade 3, G3=Girl Grade 3.
At the micro level, results presented in Figure 18 are a fair representation of the students' feelings when they were writing on the computer. While everyone else felt good or happy, Tim, who did not like writing and computer writing that much, and only found computer writing 'a little' easy, reported being bored when writing at the computer. I wonder if it is lack of interest, experience, knowledge, sense of purpose or if maybe Tim does not like interacting with a machine. Unfortunately, an interview with Tim was not completed during the school year.

Finally, another finding related to writing at the computer concerns the students' attitudes regarding e-mail activities. As the experimental group was involved in meaningful and authentic e-mail projects for the duration of the project, it was expected they would demonstrate a higher interest in such an activity when compared to the students in the control group.

**Is e-mail one of your favorite writing activities on the computer?**

![Bar graph showing percentage of students' responses to e-mail activity preference]

**Figure 19.** C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1 = Week 1 and W17 = Week 17.
As expected, the number of students in the experimental groups who chose e-mail as one of their favourite computer writing activities was double the number of students in the control groups. Further, the number of students in the experimental group who enjoyed e-mail doubled from Week 1 to Week 17. This is a reassuring finding, as it indicates that more students enjoyed e-mail process writing activities, which demonstrates its positive influence on students’ attitudes towards writing.

Figure 20. Sample of participants from the experimental group. B2=Boy Grade 2. G2= Girl Grade 2. B3=Boy Grade 3. G3=Girl Grade 3.

Figure 20 provides us with a fair representation of the influence of e-mail on the attitudes of the experimental groups. On the Week 1 questionnaire, 3 of the 4 students reported that e-mail was not one of their favourite writing activities on the computer. After 17 weeks of authentic e-mail projects, the two girls had changed their mind and considered e-mail a favourite activity. Again, Tim, who did not like computer writing that much, found e-mail writing 'a little' difficult, and even boring. Although somewhat disappointed, I am not completely surprised that Tim does not like e-mail. What could I have done differently to change his mind? Would Tim have responded to the questionnaire the same way if the project had lasted longer, or if he had been a Grade 3
student? Considering the change in attitudes of so many other students, I really wonder if there will always be students who will not be influenced by particular activities.

4.6 Collaboration and Attitudes Towards Writing at the Computer

As all students completed writing projects, they rarely all progressed at the same rate or speed. When trying to integrate computers into a language program, it is possible that a number of students need access to the computers at the same time. Therefore, collaboration at the computer is often encouraged in order to provide more time and experience to each student.

When you write at the computer, do you prefer to work alone, with a partner or with a group?

![Bar chart showing preference for writing at the computer](image)

Figure 21. C2 = Control group in Grade 2 (n=14), E2 = Experimental group Grade 2 (n=9), C3 = Control group Grade 3 (n=18), E3 = Experimental group Grade 3 (n=9). W1=Week 1 and W17=Week 17.

When asked about their preference regarding writing at the computer, a majority of the Grade 2 students, especially in the experimental group, reported preferring working with a partner. The
results on the Week 17 questionnaire were even higher when students were asked this question. This preference for computer writing with a partner is also consistent with findings presented earlier, which related to writing in English and in French (see Figures 9 and 11). Based on classroom observations and professional experience, this finding could be rationalized in two ways. First, perhaps the Grade 2 students had been exposed to or had previously been involved in a very collaborative computer environment and appreciated the benefits of working with a partner. Two, these Grade 2 students recognized their lack of experience with writing, even at the computer, and felt more confident when they did not have to write alone.

Contrary to the Grade 2 students, most Grade 3 students initially reported a strong preference for writing alone. As a matter of fact, the control Grade 3 class maintained this preference throughout the project. These results are consistent with their preference for writing alone in English as well as in French (see Figures 9 and 11). However, contrary to the control group, the students in the experimental group indicated a shift in attitudes on the Week 17 questionnaire results. Their preference changed to writing with a partner.

Knowing the numerous advantages of collaboration in language classes and writing on the computer, several options could be considered to explain such a difference between these classes. However, it is one thing to ask students to work together, and another thing to call it collaboration. As part of the process writing in the experimental class, students were instructed on ways to learn from each other. This 'social skills' teaching may have been influential in my Grade 3 students' preference for collaboration at the computer.

As social skills are still developing in Grades 2 and 3, it is important to model what collaboration really means, and provide students with opportunities to practice and discuss their concerns and
successes. Was collaboration introduced, modeled and supported in the control Grade 3 class? Was the preference for individual writing based on students' previous experiences or even personality traits? Further investigations would be required to fully understand this variation.

When you write at the computer, do you prefer to work alone, with a partner or with a group?

<table>
<thead>
<tr>
<th></th>
<th>Alone</th>
<th>With a partner</th>
<th>With a group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim B2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caro. G2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fred. B3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nath. G3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Participants

☐ pre Week 1  ☐ post Week 17

Figure 22. Sample of participants from the experimental group. B2=Boy Grade 2, G2=Girl Grade 2, B3=Boy Grade 3, G3=Girl Grade 3.

Finally, Figure 22 offers a fair representation of the group results presented in Figure 21. The Grade 2 students consistently chose to write with a partner. In terms of the Grade 3 students, Frederic initially preferred writing alone at the computer, but over the course of the project, changed his mind to preferring to work with a partner. Nathalie's preference to complete her computer work 'individually' could be due to the fact she could e-mail from home, or perhaps simply because she had an individualistic personality.
4.7 Summary of Results

4.7.1 Attitudes Towards Writing

On the Week 17 questionnaire, all the participants reported enjoying writing in French at least 'a little' or 'a lot'. In addition, although participants found writing in French a more difficult task than writing in English, most students appreciated working collaboratively and recognized the advantages and pleasures of working together and supporting each other.

These results indicate that collaboration and process writing activities in the classroom can foster positive attitudes towards writing as learning, and can help students develop their social skills.

4.7.2 Attitudes Towards Writing at the Computer

Most participants reported enjoying writing at the computer 'a lot'. Additionally, although most students only found writing at the computer 'a little' easy, the majority of the participants still indicated that writing at the computer was 'a lot' of fun. In addition, a majority of the participants reported feeling happy or good when writing at the computer.

Finally, the number of students in the experimental groups who chose e-mail as one of their favourite computer writing activities was twice as high as the number of students in the control groups. Moreover, this number doubled between the beginning and end of the project. All of these findings therefore support the hypothesis that e-mail activities, presented in a collaborative process approach to writing, can improve students' attitudes towards writing, even as early as Grades 2 and 3 in an early French immersion program.
Chapter Five

Research Findings - Writing Skills Development

5.1 Introduction

The goal of the present research project was to study the influence of e-mail (as a process writing activity) on my Grade 2 and 3 French immersion students' attitudes towards writing and on their writing skills development. The results related to attitudes were presented in Chapter 4. This chapter presents the results related to the development of student’s writing skills.

5.2 The Writing Scales

As teacher-researcher, I developed a writing scale used to assess the writing samples produced by all participants (see Appendix B). All participating students were required to produce two writing samples: The first one in October and the second one at the end of the project in February. For the purpose of this research, a letter was chosen as the writing sample. Although letters are a very specific genre of writing, this format was chosen because it is designed to communicate information; therefore the expectation is that students will include authentic and even personal content. Letters also resemble the e-mail format that the experimental group was involved with during the project.

In an attempt to facilitate assessment and analysis of the letters, a particular setting and clear instructions were provided to all the students during Week 1 and Week 17. However, it is important to note that although the Week 1 and Week 17 writing contexts were very similar, a direct comparison of these samples has to be made very carefully. During Week 1, students in
the experimental group wrote a letter to a friend in the control group. This letter became the student's first writing sample. The following day, the control group students received those letters and were given some time to read their letter. The letters were then filed and the students were asked to reply to the letters from students in the experimental group. The reply became their first writing sample. At the end of the project, all students were asked to write a letter to a person of their choice. The students chose to write to relatives or friends from other classrooms.

The descriptive scoring rubric was designed according to the process writing philosophy, as well as to the criteria recommended by the Ministry of Education and the District School Board where this study took place. The rubric assessed three selected writing strands: content and vocabulary (main idea, supporting details, coherence as well as basic and thematic vocabulary), writing conventions (sentence structures, spelling and punctuation) and finally text organization (greeting, introduction, final greeting and signature). The descriptive indicators for each writing skill corresponded to a numerical rating scale from one to four (1-4), representing four stages of acquisition: Stage One represented beginning acquisition, Stage Two represented partial acquisition, Stage Three represented full acquisition and Stage Four represented application above grade-level expectation.

It is important to note that although 17 elements were assessed for each writing sample, a selection of 13 elements was retained for the purpose of presenting the results. The elements related to text organization were not included in the overall scores for each group. This decision was based on the fact that although all students in the experimental group received specific instruction on the proper format of letters, this Ministry of Education expectation is only applicable at the Grade 3 level. (The OMET Language Curriculum document specifies that:
Grade 3 students are expected to organize information into short paragraphs and produce pieces of writing using a variety of forms (simple research reports, letters, stories, poems) (p. 15).

Some writing convention items were also discarded from the analysis (e.g.: articles and plurals) because they simply presented information that was more specific than necessary to report on. Finally, it is also important to note that the overall score was calculated by adding the sub-element scores of the first two sections of the writing scale and that each category was proportionally representative of the process writing philosophy: Writing content and vocabulary valued at 20 points, and writing conventions also worth 20 points. Consideration was also given to the average number of words per text.

To ensure the reliability of the assessment process, an external scorer (a French immersion teacher from the same school) was asked to assess a portion of the writing samples (three Week 1 samples and three Week 17 samples from each group). The scores given by the researcher and the independent scorer were compared to ensure that the assessment was not biased in any way. A percentage of inter-rater reliability has not been calculated but the external scorer and I agreed on a majority of the 13 selected elements, for each of the 24 randomly selected writing samples.

The writing samples were analyzed both qualitatively and quantitatively. First, qualitative analysis was conducted by assessing the writing samples according to the rubric. Quantitative analysis involved analyzing students' individual writing proficiency results to determine if there were any significant gains from Week 1 to Week 17 (repeated measures) or if there were significant differences across groups. Class means were also calculated and analysis of variance
(ANOVAs) completed for the experimental and control groups to determine whether the e-mail activities had an impact on the children writing skills development.

5.3 Week 1 and Week 17 Writing Samples Mean Score Results

As the participants had not been randomly distributed across the participating groups, we were concerned that writing ability differences would be found between the groups. Week 1 writing mean scores were calculated for the overall scores by adding the content and vocabulary sub-scores with the conventions of writing sub-scores. Table 4 and 5 present a summary of both Week 1 and Week 17 mean scores for the overall results, and for each sub-category.

Table 4. Means and Standard Deviation of Week 1 Writing Samples

<table>
<thead>
<tr>
<th>Variables</th>
<th>C2</th>
<th>SD</th>
<th>E2</th>
<th>SD</th>
<th>C3</th>
<th>SD</th>
<th>E3</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>25.57</td>
<td>2.98</td>
<td>28.22</td>
<td>6.08</td>
<td>25.28</td>
<td>5.57</td>
<td>28.44</td>
<td>3.97</td>
</tr>
<tr>
<td>Content and vocabulary</td>
<td>13.64</td>
<td>2.06</td>
<td>15.11</td>
<td>3.06</td>
<td>13.39</td>
<td>3.11</td>
<td>14.44</td>
<td>1.88</td>
</tr>
<tr>
<td>Language conventions</td>
<td>11.93</td>
<td>1.69</td>
<td>13.11</td>
<td>3.33</td>
<td>11.67</td>
<td>2.67</td>
<td>13.90</td>
<td>2.42</td>
</tr>
<tr>
<td>Number of words</td>
<td>57.36</td>
<td>13.78</td>
<td>81.22</td>
<td>28.64</td>
<td>60.83</td>
<td>26.39</td>
<td>80.10</td>
<td>16.07</td>
</tr>
</tbody>
</table>

Note. amaximum=40 points, bmaximum=20 points, cmaximum=20 points
Table 5. Means and Standard Deviation of Week 17 Writing Samples.

<table>
<thead>
<tr>
<th>Variables</th>
<th>C2 Mean</th>
<th>C2 SD</th>
<th>E2 Mean</th>
<th>E2 SD</th>
<th>C3 Mean</th>
<th>C3 SD</th>
<th>E3 Mean</th>
<th>E3 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>27.79</td>
<td>2.69</td>
<td>33.11</td>
<td>3.86</td>
<td>23.41</td>
<td>3.66</td>
<td>33.89</td>
<td>3.18</td>
</tr>
<tr>
<td>Content and vocabulary</td>
<td>14.43</td>
<td>1.28</td>
<td>16.78</td>
<td>2.59</td>
<td>11.82</td>
<td>2.19</td>
<td>17.22</td>
<td>2.11</td>
</tr>
<tr>
<td>Language conventions</td>
<td>13.35</td>
<td>1.98</td>
<td>16.33</td>
<td>1.58</td>
<td>11.33</td>
<td>2.52</td>
<td>16.50</td>
<td>1.65</td>
</tr>
<tr>
<td>Number of words</td>
<td>61.00</td>
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<td>91.28</td>
<td>71.81</td>
<td>135.30</td>
<td>54.44</td>
</tr>
</tbody>
</table>

Note. "maximum=40 points, bmaximum=20 points, "maximum=20 points

Table 5 presented the means and standard deviation for Week 17 writing samples. In order to visualize these results and variations, Figure 23 presents the overall mean scores across time for each of the groups. It is important to remember that although the writing contexts were very similar, the direct comparison of the Week 1 and Week 17 writing samples has to be done very carefully.
As reported in Figure 23, the four groups were very close in terms of Week 1 writing overall mean scores. More specifically, out of a total score of 40 points, the Grade 2 experimental and control groups were only separated by 2.6 points, and at the Grade 3 level, 3.4 points separated the groups. Analysis of variance revealed that there was a slight difference in favour of the experimental group \((p=0.049)\) for the Week 1 writing samples. However, no interaction was observed when Week 1 writing mean scores were analyzed across groups (experimental and control) and grades. This indicates that based on their Week 1 writing mean scores, the
experimental and control Grade 2 groups had similar writing skills at the beginning of the project, and as did both Grade 3 groups.

Looking at the Week 17 writing mean scores of each group, we found that the Grade 2 and 3 experimental groups' overall mean scores increased significantly from Week 1 to Week 17. Furthermore, a significant difference for the Week 17 scores were also found for each grade level across the experimental and control groups. \( p=0.012 \). The Grade 2 and 3 experimental groups' mean scores were significantly higher than control group mean scores for the same grade level. These results suggest that French process writing activities such as e-mail can positively impact the writing skills of Grade 2 and 3 French immersion students.

I hoped that over time all groups would demonstrate improvement in their writing skills resulting in a higher class mean for the post sample. In fact, the Grade 2 control group demonstrated a small improvement from Week 1 to Week 17. However, Figure 23 shows that the Week 17 writing overall mean score for the Grade 3 control group is lower than the mean for the Week 1 writing samples. To better understand these results, the overall scores have been broken down into sub-category scores. The first scores were related to content and vocabulary. This includes the assessment of the main idea, the integration of supporting details in a coherent fashion, and the presentation of both basic and thematic vocabulary.
Figure 24. Week 1 and Week 17 mean scores for the content and vocabulary component of the writing scale. Maximum points for this component = 20

Figure 24 indicates that of a possible score of 20 points, three of the groups improved. The greatest increases are noted in the two experimental groups. This can be explained by the strong emphasis on process writing; The experimental Grade 2 and Grade 3 students included significantly more information in their letters and invested more time and effort exchanging messages than practicing isolated skills. It is reassuring to see that the Grade 2 control group also demonstrated a small increase in this component of the writing scale. However, the Grade 3 control group had lower mean results on the content and vocabulary component scores on their Week 17 writing sample. This, in turn, affected their overall decrease, as noted in Figure 23.
Based on discussions with the Grade 3 teacher, one hypothesis is that these students may not have fully understood the communication purpose of this second writing sample because their teacher did not completely immerse the students in the process approach to writing. This lower content score could also be attributed to less experience in writing letters, or a lack of concentration and interest.

Figure 25 displays mean scores related to the proper use of writing conventions, including correct sentence structures, correct basic and thematic spelling, the consistent use of capital letters and the appropriate use of end-of-sentence punctuation.

![Week 1 and Week 17 Means for Writing Convention Scores](image)

Figure 25. Week 1 and Week 17 mean scores for the writing conventions component of the writing scale. Maximum points for this component = 20
Figure 25 presents the mean scores for the writing conventions element of the writing scale. As in the content and vocabulary component, we note that the Grade 2 and 3 experimental groups continued to demonstrate the biggest increase within the four groups. Although the process writing approach emphasizes that students should initially concentrate on content while creating their draft, a fair amount of time was dedicated to collaboratively editing and revising their work (grammar and writing conventions lessons were integrated into this authentic writing context). It is encouraging to observe that while students worked independently to complete their second writing sample, most students in the experimental group were fully engaged in the process of writing and most edited their work using the editing checklist. Presumably for this reason they scored fairly high on their application of the writing conventions. This finding suggests that process writing has the potential to help students develop stronger writing skills.

As 17 weeks of instruction separated the two samples, it was expected that all four groups would improve their overall scores. The Grade 2 control group demonstrated a small improvement, however, the Grade 3 control group mean score for writing conventions did not increase from the Week 1 to the Week 17 writing sample. This could be explained in a variety of ways such as lack of motivation, engagement or concentration towards the writing task. Maybe these control Grade 3 students were not engaged in the process, or maybe they did not realize the importance of revising and editing. Finally, perhaps they were not equipped with sufficient resources and strategies, or simply did not take enough time to revise or edit their work.

The organization of text criteria was not included in our calculation for overall scores because this particular language expectation only applies to the Grade 3 students, and therefore expectations were different for both grade levels. With this in mind, it is very interesting to note on Figure 26 the mean scores for the organizational component of the writing scale.
Figure 26. Week 1 and Week 17 mean scores for the organization component of the writing scale. Maximum points for this component = 12.

Figure 26 displays the results of the organization scores for each group. Although text organization is only a Grade 3 expectation, all Grade 2 and 3 students in the experimental group received instruction related to formatting letters. Based on the instruction received through the process writing activities, organization scores for the experimental Grade 2 and 3 groups showed a significant increase from the Week 1 to the Week 17 writing samples. Such results are refreshing as students were taught how to organize letters and e-mail messages, and were encouraged to use the communication planner to assist them in doing so (see Table 1).
Although learning the organizational elements of the letter format is an expectation included in the Grade 3 Language Curriculum, the Grade 3 control group did not demonstrate an improvement in this area. One explanation is that at the time students wrote their first sample, they had just received a letter and therefore had been 'exposed' to the specifics of letter formatting which may have positively influenced their score in this area. It is important to note that although students were occasionally exposed to letters as part of their language program, they were not regularly engaged in letter writing or exchanges during the course of the project.

When these students were asked to write another letter for their Week 17 writing, they did not demonstrate consistent use of letter format elements such as greetings, introduction and final salutations.

Finally, the last element of the writing scale considered was the number of words per text. In spite of realizing during the course of this research that the number of words per text is not always an indication of quality writing as some students may write very long letters without actually communicating a significant message. A better unit to use to measure the quality of text would have been the number of ideas included in each letter. However, this information was not calculated in this research project.
Figure 27 displays the results of the average number of words per text for each class. Notice that all four groups increased the average length of their texts, the biggest increase being for the Grade 3 experimental group (from 80 to 135 words per text). When these results are compared with Figure 24, it could indicate that the three groups of students (C2, E2 and E3) who had shown improvement in the 'content and vocabulary' component, may indeed have had more things to say, hence longer texts. Although there were differences in the learning environments for the control and experimental groups, we can still note that the Grade 3 control group did show an increase in the number of words per text for the Week 17 writing sample.

In summary, all the groups started with similar Week 1 writing scores. Analysis of Week 17 writing scores revealed that the Grade 2 and Grade 3 experimental group's mean scores were significantly higher on all writing components than the Grade 2 and Grade 3 control group.
scores. Further, the Grade 2 and 3 experimental groups significantly increased both their overall mean scores and their mean scores for all sub-components of the writing scale. These results suggest that collaborative process writing activities, such as French e-mail projects, can positively impact the writing skills development of Grade 2 and 3 French immersion students.

5.4 Variation Over Time of Individual Student Scores

Researchers often gain a better understanding of their data when they study it from various perspectives. So far in this chapter we have only considered average scores per class which do not provide information on individual student results. As a result, further analysis was conducted to determine the individual growth of each participant in our groups. In 1998, the Ministry of Education introduced a standardized report card for the province of Ontario. Among other categories, these report cards include a letter grade for the three language components: oral and visual communication, reading and writing. In order to show the range of abilities within each group, I used the writing grade given to each participant on the report card they received at the end of the previous year. Therefore, in addition to participants' overall Week 1 and Week 17 writing scores, report cards from the previous year were pulled and end-of-year French writing grades were collected. Although the report card data results from the use of different assessment tools by different scorers focusing on different expectations, it provides us with an excellent starting point for each child. It is important to note that the report card results are displayed in Figures 28 to 31 as an exploratory investigation of the variation of writing ability within each group. These results should not be used in direct comparison with the Week 1 and Week 17 writing samples. For comparison purposes, all three sets of data were translated into percentages and displayed on a timeline thus offering a more precise picture of the individual variations.
Looking at the global picture of the Grade 2 control group in Figure 28, we can see the variation between the end-of-the-previous-year's report card marks. We can also see that these marks are generally higher than the marks for the first writing sample. This suggests a normal decrease as writing expectations for Grade 1 are easier than for Grade 2. On the other hand, while looking at
the writing sample results, we notice that most of the control Grade 2 students demonstrated a small improvement from Week 1 to Week 17.

![Individual Writing Variation of Students in the Grade 2 Experimental Group](image)

**Figure 29.** Grade 2 Experimental Group. Variation of writing scores over time. Thick grey line = Tim (Grade 2 boy). Dark dotted line = Caroline (Grade 2 girl).

Figure 29 displays the distribution of the end-of-the-previous-year report card grades for students in the experimental group. We notice a range of writing abilities similar to the one shown for the control Grade 2 group (Figure 28). It is therefore possible to consider comparisons between the Week 1 and Week 17 writing samples for the Grade 2 control and experimental group students.
It is interesting to note that all of the Grade 2 experimental group students improved their scores from Week 1 to Week 17. In fact, the weaker students demonstrated significant improvement in their writing skills.

Figure 29 also allows us to take a closer look at the variation of overall scores for the two students from the experimental group that have become a micro-focus for this report. The thick, grey line shows Tim’s results (Grade 2 boy), and the dark dotted line shows Caroline’s results (Grade 2 girl). Although both students have demonstrated consistent improvement, there is a noticeable variation in Tim’s results. Tim’s score at Week 1 was 43% (17 out of 40), and his Week 17 score was 67% (27 out of 40): A gain of 24% (10 points). These results are very positive considering Tim did not particularly enjoy writing and only considered it a ‘little easy’ earlier in the study. In fact, results for these four students could be considered good indicators that process writing can help students develop better writing skills.
The results displayed in Figure 31 help us understand the Grade 3 control group better. The report card results of the Grade 3 control group students point to a range of writing abilities. When we compare their Week 1 and Week 17 writing samples, we notice that most students in this group did not show a significant improvement. As a matter of fact, seven of these students received their lowest score on the Week 17 writing. Oddly, a few students scored much higher on
the Week 1 writing sample that they did at Week 17. For most of the control Grade 3 students, the variation across time did not indicate an improvement in their writing skills.

As seen in Figure 31, the report card grades from the end of the previous year show a range of writing abilities among the participants from the Grade 3 experimental group. When we look at
the variation between Week 1 and Week 17, we see that eight students from this group demonstrated a significant improvement in their writing scores.

Figure 31 also provides a closer look at the variation of overall scores for the two Grade 3 students in the experimental group that we have been focusing on. The thick grey line indicates Frederic’s results (Grade 3 boy), the dark dotted line represents Nathalie’s results (Grade 3 girl). The two students did not score particularly high on their first writing sample but demonstrated a significant increase in their Week 17 writing scores. Nathalie, who had one of the lowest Week 1 scores, ended up with one of the highest scores at the end of the project, confirming the positive effect of process writing activities on the writing skills of French immersion students.

5.5 Other Findings Related to Writing

Other aspects of the project also contributed to the improved results of students in the experimental groups. The collaboration that was modeled, encouraged, and valued during process writing was an element that made a difference in students’ more positive attitudes and writing skills improvement. During regular observation periods, I noticed that many of the Grade 2 students often asked for assistance from their Grade 3 peers to whom they often referred as more experienced than themselves. Of course, the Grade 3 students appreciated the recognition and were willing to help most of the time. As reported by many researchers, collaboration during writing activities is one of the most effective ways to promote both achievement and productivity (Simpson, 1986; Johnson and Johnson, 1985; Dickinson, 1986).

Considering both the students’ interest and willingness to collaborate to complete their writing tasks, and the improvement in their writing skills throughout the project, it is possible to argue
that collaboration and process writing activities can positively impact on the writing skills
development of Grades 2 and 3 French immersion students.

It is interesting to note that although the girls wrote almost 50% more e-mail messages than the boys and chose writing as a free-choice activity almost three times more often, there was no statistical difference in the writing results between the boys and the girls. When comparing the quality of Week 1 and Week 17 writing samples, the boys' writing scores were equal to the girls' writing scores.

5.6 Summary of Writing Results

Statistical analyses revealed no significant differences across groups for Week 1 writing overall mean scores. However, analysis of the Week 17 writing scores revealed that the Grade 2 and Grade 3 experimental groups' mean overall and sub-component scores were significantly higher than the Grade 2 and Grade 3 control groups' mean scores. Further, the Grade 2 and 3 experimental groups significantly increased their overall mean scores and their mean scores for all components of the writing scale. These results suggest that collaborative process writing activities such as French e-mail projects positively impacted the writing skills development of Grades 2 and 3 French immersion students.

Looking more closely at the sub-elements of the writing scale (content, conventions and organization) as well as text length, we found that the Grades 2 and 3 experimental group mean scores were significantly higher than the control group scores, on all of the writing components of the scale.
To support the group mean score analysis, individual student writing variation was also reported in this chapter. These results indicated that most of the students in the Grade 2 and 3 experimental groups demonstrated significant improvement from Week 1 to Week 17 while the majority of the control groups’ participants did not show as much improvement. Furthermore, even the weaker students in the experimental groups demonstrated a significant improvement in their writing skills. However, this was not the case in the control groups.

Considering the effect of the e-mail activities and collaboration in terms of writing in the classroom, we can report that French e-mail activities presented in a process approach to writing positively improved the writing skills of Grade 2 and 3 French immersion students.
Chapter Six

Discussion

6.1 Introduction

Educators of all levels have the professional responsibility to constantly assess their teaching styles, methods and programs in order to create the best possible learning environment for their students. Continually looking for ways to improve the quality of my French immersion program, I seriously considered which new approaches, techniques and even technology to incorporate into my program. However, I wondered whether such changes would really make a difference in the way my students learned? The purpose of the present research project was to find answers to some of my questions.

As we enter the new era of technology, I was interested in finding out if incorporating French e-mail, as a process writing activity, would influence my Grade 2 and 3 students' attitudes towards writing and their writing skills development.

This chapter is divided into four main sections. First, I review the most important findings of this project, and second, provide some instructional implications and recommendations based on these findings. Third, I summarize the research methodology and present some of its limitations. Finally, I offer new questions and suggestions for future research projects.
6.2 Most Important Findings

6.2.1. Attitudes Towards Writing

The attitude questionnaire was used as a tool to gather information related to writing in English, in French, and at the computer. Post-questionnaire results indicated that, with the exception of the five Grade 2 experimental group boys, most students enjoyed writing in English 'a lot' (as opposed to 'not at all' and 'a little' on the questionnaire). Furthermore, when differences across grades were considered, the majority of the Grade 3 students from the control group, and all of the students in the experimental group, reported enjoying writing in English 'a lot'. It is also important to note that when asked how difficult it was to write in English, all of the participants reported that it was at least 'a little easy' or 'very easy' (the other choice on the questionnaire being 'hard'). In a process approach to writing, authentic and meaningful activities are introduced to the students as they are supported and guided through every step of their personal learning curve. However, as Grade 2 is the first year of formal English language instruction, it is possible that the Grade 2 boys only liked writing 'a little' because of their lack of experience with writing or perhaps because they felt intimidated by the challenging writing projects that were presented to them.

Then, students were asked to rank their enjoyment towards writing in French, as well as how difficult they found writing in French. Most Grade 2 and 3 girls responded in the same fashion as they did for English, reporting enjoying writing in French 'a lot' and finding it at least 'a little easy' or 'very easy'. In contrast, there was a clear shift in the boys' attitudes towards writing in French. As the language changed, most of the other boys joined the ranks with the experimental Grade 2 boys, moving to only enjoying writing in French 'a little bit'. This finding does not come
as a surprise; second language educators have often reported that girls seem to have a greater interest in learning and practicing a second language. However, it is important to note that no student from the experimental group responded that writing in French was 'hard' on their post-questionnaire, and all the participants reported enjoying writing in French at least 'a little' or 'a lot'. These findings complement the results of Dobkin-Kurtz (1998), indicating that process writing activities can foster positive attitudes towards writing.

In summary, when comparing attitudes towards writing in English and in French, we found that most girls liked writing in English as much as in French, while the boys had a clear preference for writing in English. It was also found that although immersion students received less instruction in English, the majority of the participants still perceived writing in English as easier than writing in French. This information is not surprising to most French or second language teachers. In fact, French immersion teachers hear and see evidence of this preference on a daily basis at most grade levels of elementary school. This preference seems to stem from the fact that when students write in English, they can focus on the actual content of their message, as they do not have to invest as much time and energy searching for or learning new words. Immersion students have access to a larger vocabulary bank that is also more instantly accessible in English. For that matter, they have had much more exposure to the English language in their day-to-day environment and they can usually receive help or find resources more readily.

In a process-oriented approach to writing, students are provided with ample opportunity and time periods to work on their projects and develop their skills. Every student is unique and has its own individual learning needs. Although there is always a supportive and encouraging teacher (and sometime even parent volunteers) present with the learners, collaboration among peers should also be valued as a primary resource for students. In the experimental groups in this study, most
students preferred working with a partner to complete writing tasks. With respect to writing in English and in French, when students were asked if they preferred working alone, with a partner, or with a group, answers varied a lot within and between the groups. A majority of students in the Grade 2 and 3 experimental groups consistently chose to complete English writing with a partner. This number skyrocketed when the question was asked about writing in French. Based on the fact that the participants considered writing in French a more difficult task than writing in English, it was encouraging to see that language learners possibly recognized the advantages and pleasures of working together and supporting each other. Alternatively, a significant difference was established between the experimental and control groups, as most boys in the control Grade 3 group indicated a preference for writing alone. The general preference for collaboration by the students in the experimental group could be based on the fact that collaboration was always encouraged and valued in their classroom. As part of the process approach in the experimental class, time was taken to teach students how to get the most out of working with each other and it seems such advantages may have positively influenced the experimental groups.

These results suggest that collaboration and process approach activities in the classroom can foster positive attitudes towards writing as well as help students develop social skills. Such results, therefore, complement the work of many researchers such as Garibaldi (1979), Johnson and Johnson (1985), Simpson (1986), who assert that cooperation and collaboration are the most effective ways to promote achievement and productivity, encourage groups to perform better and more confident about their new skills, and enjoy their tasks more.
6.2.2. Attitudes Towards Writing at the Computer

This section will review the findings related to the participants' attitudes towards writing at the computer. The information collected from the pre-questionnaires indicated that most participants, boys and girls, very much liked to write at the computer, and that this preference did not change a lot over the course of this project. These results support the work of several researchers who have studied the impact of computers and telecommunications on students' attitudes towards writing (e.g., Jenkinson, 1992; Oakes, 1996). These researchers also presented results indicating that computers and e-mail have the potential to motivate students to write more, and better.

As recommended by the Ontario Ministry of Education, technology is to be integrated into every classroom in Ontario. As reported in Chapter 3, the participating teachers did not all have the same level of comfort or experience with computer integration but support and cooperation among teachers helped minimize the gap between classes. However, it is important to remember that the Grade 2 control group only had two computers while the both the Grade 3 control and Grades 2 and 3 experimental class had five computers. Of course, based on discussions with participating teachers, it was agreed that the students of these two classes received more instruction and were provided with more frequent opportunities to practise their developing computer skills while using a variety of applications. However, when the students were asked to rate their level of proficiency or the general level of difficulty regarding writing at the computer, no statistical differences were established across groups either at pre- or at post-questionnaires. Most students reported that writing at the computer was only a 'little easy'. This could be due to the fact that most of the computer tasks (writing e-mail, word processing and drawing at the computer in the case of the experimental groups, and web editing and word processing in the case of the control groups), required new knowledge and skills, and therefore students felt
challenged by these activities than by their computer experiences from the previous year (math or drawing activities on the computer).

Although this was the first year that the computer was used as a writing tool, most students did not find it that difficult. The majority of the participants still indicated that writing at the computer was 'a lot' of fun (as opposed to 'a little' and 'not at all'). In addition, a majority of the participants reported feeling happy or good when writing at the computer, which supports the findings of Jenkinson (1995) and Oakes (1996).

As previously discussed in this chapter, collaboration, even at the computer, was always encouraged and supported. As students individually or collaboratively progressed through their e-mail projects at various rates, it was not unusual that a number of students needed to access the computer at the same time. Over the last decade, there has been a significant increase in the number of computers in the classroom, but it is rarely possible to provide each child with their own personal computer. As reported by Johnson and Johnson (1985), in addition to providing greater access to the computer,

... collaboration offers many other advantages such as opportunities for students to observe and imitate each other's use of the computer, experience the encouragement, support, warmth and approval of a number of classmates, have peer evaluate, diagnose, correct and give feedback on their understanding, be exposed to a greater diversity of ideas and procedures, more creative responses while completing the assignment, and have classmates encourage them to stay on task and exert concentrated effort. (p. 11)
Considering the high volume of e-mail messages sent to relatives, friends, keypals and others by the students in the experimental group, there were many opportunities for students to decide whether they preferred working alone or with a partner. When asked about their preference about writing at the computer, a majority of the Grade 2 students reported preferring working with a partner, while the Grade 3 students were split between working alone and working with a partner.

When gender was considered, all of the Grade 3 girls in the control and experimental groups indicated a preference for working alone. Based on my observations and discussions with colleagues, I can offer two hypotheses: (1) maybe the girls felt very confident of their abilities at the computer; or (2) maybe they felt less pressured to perform on the computer when working on their own. Further questioning through interviews would have allowed us to better investigate these hypotheses.

Drexler et al. (1990) found in their research that writing at the computer could be highly motivational for students because this provides them with alternative avenues for success. Drexler suggested it leads to increased self-esteem and self-confidence, and that it provides students with opportunities to work together cooperatively, tutor and assist one another. In the same vein, Simpson (1996) states:

> When something is seen as particularly difficult, students prefer to work with someone else. With regards to student attitudes, it is most interesting to note that in the presence of computers, most children see a greater value in working together. (p.38)
Now that we have demonstrated the value of collaboration during writing and classroom projects, one may wonder if the benefits of collaboration can be extended to a variety of learning projects, and more specifically, projects that involve the use of technology to communicate with the world.

However, as much as computers tend to encourage students to work in groups, it has been noted that collaboration may not always be successful if the class has not had previous experience in working in groups or in pairs (Higgins & Johns, 1984). Also supporting this statement, Simpson (1986) argued that students need to be taught about the dynamics of group work before they can experience the full benefits of collaboration when completing learning projects on the computer. In our case, collaboration in the classroom and at the computer had been modeled, practised, encouraged and valued; the Grade 2 and 3 experimental groups students appreciated working with each other.

Finally, another finding concerns the students’ attitudes regarding e-mail writing activities. As the experimental group was involved in meaningful and authentic e-mail projects for the entire duration of the project, it would be expected that they would demonstrate a higher interest in such an activity than the students in the control groups. As a matter of fact, the number of students in the experimental groups who chose e-mail as one of their favourite computer writing activities was double the number of students in the control groups. Further, the number of students who enjoyed e-mail doubled between the time we began and the day post-data questionnaires were completed. These findings, along with those of Jenkinson (1992), Oakes (1996), and Drexler et al. (1990), support the concept that e-mail activities presented in a process approach to writing can improve the students’ attitudes towards writing, even as early as Grades 2 and 3 in the early French immersion context.
6.2.3 Writing Skills Development

As reviewed in the first chapter, the process approach to writing has already been studied in a variety of second language contexts (see Silva, 1990; Hudelson, 1989; Monteith, 1991; Stuhlmann, 1996; Calkins, 1991; Graves, 1983; and Atwell, 1987). All of these researchers support the authenticity of process writing in a second language program.

As the participants in our study had not been randomly distributed across the participating groups, we were concerned that writing ability differences would be found between the groups. Means for each group were calculated through analyses of variance of Week 1 writing scores. Although these mean scores were very close to each other, a significant difference of overall Week 1 scores was found in favour of the experimental groups. However, no interaction was detected when Week 1 sample mean scores were analyzed across groups (experimental and control) and grades. These results indicated that based on their Week 1 writing mean scores, the experimental and control Grade 2 groups presented similar skills, and both Grade 3 groups also presented similar writing skills at the beginning of the project.

Results of these analyses revealed that the students in the experimental groups demonstrated a greater increase and higher scores overall and on their sub-components of the writing scale for the Week 17 writing samples.

In order to strengthen these results, further analysis was conducted using individual report cards, and writing sample scores to explore the growth of each participant in the four groups. It was found that all of the participants in the experimental group, i.e., both the strong and the weak writers, improved their writing skills from Week 1 to Week 17.
These findings support the concept that French e-mail activities, presented in a process approach to writing, can improve the writing skills of Grade 2 and 3 French immersion students. Within the context of the French immersion program, Dobkin-Kurtz (1998) noted that significant gains were recorded in student writing skills as well as their attitudes, hence supporting the implementation of process writing strategies. Several e-mail projects were presented during the 17 weeks of the study, providing meaningful and relevant reasons to write, as well as authentic audiences (Flat Stanley partners, friends, relatives, keypals) to exchange information with.

The collaborative culture evident in the experimental Grade 2/3 class was an element that made a difference in students’ increasingly positive attitudes and writing skills development. During regular observation periods, I noticed that although some students preferred working alone, many students chose to work with a partner while composing, editing, revising or typing their messages on the computer. Most of the Grade 2 students regularly asked for assistance from their Grade 3 peers, to whom they often referred as more experienced and knowledgeable than themselves. This information supports the findings of Drexler at al.(1990) that:

> When used appropriately, computers can offer new and exciting opportunities to work together cooperatively. The new behaviours and attitudes students may acquire as a result of such cooperative learning experiences may have an impact on student achievement.(p. 13)

With regards to the influence of gender on the participants' writing achievement, no statistical difference could be established between the writing achievement of boys and girls in the
experimental group. However, results indicated that boys wrote significantly fewer e-mail messages than the girls, and their messages were significantly shorter than their counterparts. These findings partly support the results of Knudson (1995) who found during her research on writing, attitudes, experiences and gender, that gender can be highly relevant to writing achievement.

6.3 Instructional Implications and Recommendations

6.3.1. Process Writing Recommendations

This study provides evidence that e-mail activities (telecommunications) integrated in a process writing context where collaboration is encouraged, can positively impact on the attitudes as well as on the writing skills development of Grade 2 and 3 French immersion students.

It is apparent from the analysis of this data that in order to create a positive impact on students' learning and perception of writing, e-mail activities need to be integrated in a supportive environment. Process writing allows students to evolve at their own pace, while providing stimulating and motivating reasons to learn and improve the quality of their communication skills. However, writing rarely happens without support. Instruction is required, and is most effective when offered on a case-by-case basis, via mini-lessons or during conferencing with small groups or individual students. It is important to stimulate students' interest in writing and knowledge regularly; pre-writing activities such as discussions and planning time can help students understand the purpose of their tasks.

Teachers must also provide students with frequent and lengthy opportunities to write. Collaboration must be valued and encouraged at every step of the process, especially during the
revising and editing phases. To support these stages of the process, it is recommended that word lists be available to the students, either in a personal folder, or posted directly on the walls. Peers, teachers, parent volunteers could also be available during these times to provide assistance with unknown words, new language structures, grammar elements, etc. Once these steps are in place, students need to be reminded of the purpose for their writing: publishing and communicating. The students' audiences should be real and interested in reading what the writers have to say. E-mail provides an opportunity to communicate with real people from different backgrounds, languages and cultures. The audience can also consist of peers, friends from other classes, family members, relatives, and so on.

Another necessary element of successful writing is the participation and support of the instructor. Teachers need to encourage their students, guide and support their hesitant steps, reassure them it is acceptable to make mistakes on first drafts and remind them the purpose of the initial writing is to communicate ideas. Finally, it is important to remember that students, whatever their age or level of ability, need to feel that writing is fun.

6.3.2. Computer and E-mail Recommendations

First of all, teachers do not need to be computer experts to integrate e-mail activities into their writing program. Technology is becoming more user-friendly on a daily basis, and teachers can become familiar with software and improve their technical abilities within just a few hours. Secondly, teachers do not need to own their own classroom computer lab in order to integrate e-mail activities into their writing program. It is easier for teachers to include e-mail into their program when there is at least one computer in the classroom, connected to either the school network or directly to the Internet. However, it is possible to create and run meaningful
telecommunication projects from a school computer lab. As each context is different, various elements must be considered before beginning e-mail projects. Here are the most important reminders for teachers interested in integrating e-mail telecommunication into their learning/teaching program:

Safety

Make sure to obtain parental permission before students participate in e-mail exchanges. As information will leave the actual classroom and be shared with "the world," it is important to request permission for students to participate in such exchanges. It is also advisable that students use code-names or pseudonyms and not share personal information such as phone numbers or addresses.

As well, it is important to note that students do not need to have their own personal e-mail account. In fact, for safety purposes, it might be easier if all e-mail messages were sent and received on one single address, so that the teacher can supervise the exchange.

Equipment

Make sure your school has the proper equipment to run the computer applications necessary for e-mail projects. E-mail exchanges necessitate a computer that can run e-mail software, and that has a connection to the Internet. As students will probably not have their own computer at their desks, teachers need to schedule numerous times during their program when students can access the computer, either to draft their message or to type in a previously composed draft.
Skill and experiences

Find out what previous experience your students have with computers. Teachers will need to teach or review basic computer skills such as keyboard functions, writing, saving and printing their work. It might be necessary to review students' skills regularly, and post instructions on the wall near the computer.

Find out what knowledge or experience students have with keyboarding. Teachers might need to teach or review keyboarding skills with their students. Depending on the age or experience of the students, consider using a few unconnected keyboards on students' desks or introducing software that will guide students through the many levels of formal practice. However, taking into account the very busy schedules in most classrooms, as well as the age and grade level of the students, it might not be a wise investment of time to formally practice typing and keyboarding. If possible, teachers should ask parent volunteers to come into the classroom (or lab) to help with typing practice as well as to type in messages with the students. Another human resource to consider is to invite older students to come in during recess or lunchtime and provide assistance to younger students composing or typing on the computer.

Content and Frequency

Decide if the messages will be written individually or created by small or whole groups? Also find partners with whom the students will communicate with? When establishing the goals of e-mail projects, teachers need to decide whether the students will collaborate and exchange group e-mails or individual messages. Audiences are as varied as the colours in nature and might
include the city mayor, Francophone classes in other countries, other classes from your area, or individual keypals found on the Internet.

What information will be shared? Although no student identification information (full names, phone numbers, addresses, etc.) should be shared on the Internet, meaningful and authentic e-mail projects should be fully integrated into teachers' programs. Teachers should consider focusing on exchanging or collecting information in order to complete projects and meet grade level expectations.

How often will there be an exchange? The frequency of exchanges will vary according to the purpose of the projects, the age and grade level of the students, the number of computers available, etc. In order to avoid disappointing or incomplete exchanges, the parties involved should agree upon the frequency of communications.

6.4 Research Methodology and Limitations

As a teacher-researcher interested in studying the influence of incorporating e-mail activities into my process-oriented writing program, I opted for an action-research project, integrating a mix of case study and experimental methodologies. Inspired by the work of other researchers, I created the attitude questionnaire as well as a descriptive writing scale used for this project. In order to increase the validity of the data collected from my students, two control groups were included in the research. Using qualitative and quantitative analysis, I studied the variation between pre- and post-data for each participant, and the difference between the control and experimental groups.

One of the major limitations of this research design was that the three groups were not taught by the same teacher. This did not allow me to completely isolate the impact of e-mail activities on
the participants in the experimental groups. However, in order to maintain the highest possible consistency among the groups, several steps were taken before the control groups were selected. One of these steps involved having all three teachers complete a teaching styles questionnaire. When analysed, these questionnaires revealed that all had similar philosophies about the teaching of writing. Consideration was also given to certain individual characteristics (ability, personality, gender) of the participants in the three classes. In addition, all three teachers collaborated in planning their programs, and I spent one period a week in the Grade 2 control class to support computer applications. In spite of taking these precautions, there was no guarantee that each class would receive the same type of instruction.

Originally, I had developed this project thinking that I would adopt qualitative analysis methods, providing mostly descriptions of situations, participants, change in attitudes and variations on the descriptive writing scale over the 17 weeks of the project. However, as the project evolved, I realized that quantitative methods would nicely complement the qualitative data. Another limitation of this project became the small size of the four groups as calculations and statistical results generally gain reliability as the group sizes increase. As the project and data collection were already near completion, I decided to maintain the groups as they were, taking into consideration that these statistical analyses would only be used to complement, and not replace, the qualitative results. Finally, the Week 1 and Week 17 letters were not produced in exactly the same context for the control and experimental groups. For these two reasons, one must take care not to overgeneralize.
6.5 Questions and Suggestions for Future Research

This project took place during the 1999 - 2000 school year. At the time, several researchers had informed me of the potential of the process approach to writing in French immersion. In fact, its benefits had even been reflected on the attitudes and writing skills of Grade 1 French immersion students. In the current project, the positive influence of process writing on a Grade 2 and 3 French immersion classroom has been demonstrated.

Furthermore, several other researchers had informed me of the potential of computers and telecommunications (e-mail) on the second language learners’ attitudes, at a variety of levels. In this project, I have demonstrated that when students collaborate on e-mail projects that are integrated into a process approach to writing, students’ attitudes towards writing as well as their writing skills improved significantly.

However, as this is my first project of this nature, there are still many aspects of the research that can be investigated to further our understanding, reaffirm and complement the findings. Among the many new questions that arose from the development of this research project, one of the most interesting is the influence of gender on attitudes, writing development and the implementation of e-mail process writing activities in the classroom. One important question is how to adapt second language programs to best meet the needs of boys and girls.

As established throughout this report, e-mail worked as an authentic communication tool to link language learners. As telecommunication becomes more prevalent in our schools and society, will it make a difference on its integration into the curriculum and its impact? It would also be interesting to find out if other computer writing activities would have a positive impact on the
students' attitudes and writing development. What other technology applications would positively influence the attitudes and skills of second language learners?

Finally, although similar results were presented for the Grade 2 and 3 experimental groups, it would be interesting to study the variation in reactions, attitudes and writing skills development across the elementary grades. Would there be a grade level where such telecommunication experiences would offer optimal results?

In conclusion, this research project has been a multifaceted education for me as a teacher, and as a researcher. I learned to develop, complete, analyze and report a research project. I acquired precious information that I will take back to my classroom. I started with two specific and complex questions that have been answered. In sum, this project broadened my horizons and created a whole new list of questions that I look forward to investigating further. Continuing to do action-research will allow me to pursue my goal of life long learning.
References


Appendix A

Student's number: _____

Questionnaire on Writing and Computers

This questionnaire is a way for me to get to know you better. I will read the questions to you as we go along. Remember, there are no right answers! Just answer what is true for you.

Section One: Personal Background

When is your birthday? ________________________________

1. Do you have e-mail access at home?
   [ ] Yes
   [ ] No

If not, you don't have to answer questions #2 and #3

2. Have your parent(s) taught you how to use their e-mail program?
   [ ] Yes
   [ ] No

3. Do you write e-mail messages from home?
   [ ] Yes
   [ ] No

Section Two: Writing

4. Do you like writing in English?
   [ ] A lot
   [ ] A little
   [ ] Not at all

5. Do you like writing in French?
   [ ] A lot
   [ ] A little
   [ ] Not at all
6. When you write in English, do you prefer to work...
   □ Alone.
   □ With one partner.
   □ With a group.

7. When you write in French, do you prefer to work...
   □ Alone.
   □ With one partner.
   □ With a group.

8. Do you think that you are...
   □ A good writer?
   □ An o.k. writer?
   □ A bad writer?

9. How do you know that you are a
   - good
   - ok
   - bad
   □ I have many ideas.
   □ I don't have many ideas.
   □ I am good at spelling.
   □ I am not good at spelling.
   □ I write many sentences.
   □ I don't write many sentences.
   □ I write long sentences.
   □ I write short sentences.
   □ Other: ____________________

10. Do you think that writing in English is:
    □ Very easy?
    □ Easy?
    □ Hard?
11. Do you think that writing in French is:
☐ Very easy?
☐ Easy?
☐ Hard?

12. Do you think that writing in English is:
☐ A lot of fun?
☐ A little fun?
☐ Not fun at all?

13. Do you think that writing in French is:
☐ A lot of fun?
☐ A little fun?
☐ Not fun at all?

Section Three: Process Writing

14. Before you write, what do you like to do?
☐ Draw a picture
☐ Talk about your ideas with a partner
☐ Complete a writing map
☐ Other: __________________________

15. When you write, do you prefer to use...
☐ A pencil?
☐ The computer?
☐ Other: __________________________

16. When you finish your first draft, what do you like to do?
☐ Read my text again.
☐ Change some words or ideas.
☐ Correct my spelling.
☐ Correct my punctuation.
☐ Other: __________________________
17. Who do you like to share your writing with?
☐ I don't like to share my writing.
☐ I like to share it with my teacher.
☐ I like to share it with one friend.
☐ I like to share it with the whole class.
☐ I like to share my writing with my family.
☐ Other: ________________________________

Section Four: Writing on the Computer

18. Do you like writing on the computer?
☐ A lot
☐ A little
☐ Not at all

19. When you write on the computer, do you prefer to work...
☐ Alone?
☐ With one partner?
☐ With a group?

20. When you write on the computer, do you think that you are...
☐ A good writer?
☐ An o.k. writer?
☐ A bad writer?

21. Why do you think you are a ____________ writer on the computer?
- good
- o.k. writer
- bad

☐ I know how to use the computer.
☐ I don't know how to use the computer.
☐ I like to type work on the computer.
☐ I don't like to type work on the computer.
☐ I can type fast.
☐ I can't type fast.
☐ Other: ________________________________
22. Do you think that writing on the computer is:

☐ Very easy?
☐ Easy?
☐ Hard?

23. How do you feel when you write on the computer?

☐ Happy
☐ Angry
☐ Bored
☐ Frustrated
☐ Other: __________

24. What are your favourite writing activities on the computer?

☐ Creating stories
☐ Typing work
☐ E-mail
☐ Internet
☐ Other: __________

25. Do you think that writing on the computer is:

☐ A lot of fun?
☐ A little fun?
☐ Not fun at all?

Thank you for your help in answering the questions.

Suzie Robertson ©1999
Appendix B

Descriptive Writing Scale
Grade 2/3 French Immersion Program

<table>
<thead>
<tr>
<th>Traits</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content and vocabulary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main idea</td>
<td>Absent</td>
<td>Weak</td>
<td>Clear</td>
<td>Thoughtful</td>
<td></td>
</tr>
<tr>
<td>Details</td>
<td>Repetitive</td>
<td>General</td>
<td>Pertinent</td>
<td>Significant</td>
<td></td>
</tr>
<tr>
<td>Coherence</td>
<td>Never</td>
<td>Sometime</td>
<td>Most of the</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>Basic Vocabulary</td>
<td>Limited</td>
<td>Vague</td>
<td>Vague</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thematic Vocabulary</td>
<td>Limited</td>
<td>Vague</td>
<td>Vague</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Writing conventions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence Structure</td>
<td>Incomplete</td>
<td>Simple</td>
<td>Complete</td>
<td>Precise</td>
<td></td>
</tr>
<tr>
<td>Basic Vocabulary Spelling</td>
<td>Rarely</td>
<td>Sometime</td>
<td>Often</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>Thematic Vocabulary Spelling</td>
<td>Rarely</td>
<td>Sometime</td>
<td>Often</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>Capital Letters</td>
<td>Rarely</td>
<td>Sometime</td>
<td>Often</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>Punctuation at the End of Sentences</td>
<td>Rarely</td>
<td>Sometime</td>
<td>Often</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td><strong>Organization of text</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salutation</td>
<td>Absent</td>
<td>Incomplete</td>
<td>Present</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>Absent</td>
<td>Incomplete</td>
<td>Present</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td>Final Salutation</td>
<td>Absent</td>
<td>Incomplete</td>
<td>Present</td>
<td>Complete</td>
<td></td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>Number of words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 – 30</td>
<td>31 – 75</td>
<td>75 – 110</td>
<td>111 and more</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Keyboarding Ability test

Part 1: Using basic keys
Instructions: The teacher or parent volunteer will ask the questions for part 1 and record answers on a tracking sheet.

Imagine you are writing a story at the computer.

Can you show me how you make a space between the words?
   What is that key called?
Can you show me how to start on a new line?
   What is that key called?
Can you show me how to erase a letter in a word?
   What is that key called?

Part 2: Typing
Teacher or parent volunteer will give the instructions for part 2, time how long the student takes to independently complete the task.

Look at this sentence:

Un jour, j’ai vu un animal dans le parc

Please type this sentence while I time how long it will take you.

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Appendix D

Teaching Style Questionnaire

1- How many minutes a day are devoted to language arts instruction, excluding reading:

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) less than 15 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) 15 to 30 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) 31 to 45 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) 46 to 60 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) More than 60 min</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2 - How much time in the language arts programme is devoted to these language arts areas (other than reading). Use an E to indicate English and an F to indicate French.

<table>
<thead>
<tr>
<th></th>
<th>&lt;5%</th>
<th>5% to 10%</th>
<th>10% to 25%</th>
<th>25% to 50%</th>
<th>&gt;50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>spelling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>handwriting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dramatics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>written composition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>speech</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3- How frequently do your students write?

<table>
<thead>
<tr>
<th></th>
<th>in English</th>
<th>in French</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) daily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) two or more times a week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) weekly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) every two weeks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4- To what extent do you use each of the following to stimulate children to write?

<table>
<thead>
<tr>
<th></th>
<th>never</th>
<th>seldom</th>
<th>frequently</th>
<th>almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>movies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>television</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>filmstrips or slides</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pictures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other objects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>music</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>whole class discussion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>small class discussion</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>dramatics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>field trips</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a topic or title</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>beginning sentence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>story or narrative setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>brainstorming ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reading a story or poem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sensory experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5- How frequently do your students write in the following forms?

<table>
<thead>
<tr>
<th></th>
<th>never</th>
<th>seldom</th>
<th>frequently</th>
<th>almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>personal or social letters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>business letters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stories</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>summary and reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>descriptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>directions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>news writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>poetry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>essays</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>announcements and notices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>personal experience narratives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6- How frequently do you... Use an E to indicate English and an F to indicate French.

<table>
<thead>
<tr>
<th></th>
<th>never</th>
<th>seldom</th>
<th>frequently</th>
<th>almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>list words on the board that may be spelling problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>write requested spelling words on slips of paper?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>send children to the dictionary for spelling help?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spell words orally when spelling help is requested?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>allow children to cross out, insert etc. on first draft?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>require rewriting (copy over)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use the writing of other children as model?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have children read their writing aloud to the class?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>post selected writing on the bulletin board?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use adults' writing as models?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assign writing in connection with other subject areas?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encourage non-assigned writing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provide time and place for non-assigned writing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
allow children to ask peers for help?
require completion of grammar exercises?
have students do punctuation and capitalization exercises?
develop a story or paragraph as a group activity?

7- To what extent do you use the following practices in evaluating children's writing? Use an E to indicate English and an F to indicate French.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>never</th>
<th>seldom</th>
<th>frequently</th>
<th>almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>assign a single letter or grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assign separate grades for content and mechanics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comment on mechanical items needing improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comment on compositional items needing improvement (organization, sentence structure, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comment on mechanical aspects that are especially good or show improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comment on compositional aspects that are well done or show improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have individual conferences with children</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have group evaluation by students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have each child evaluate own writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have another teacher evaluate writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluate by a teacher team</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluate according to previously establishes standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>use a scale or checklist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>give objective tests on punctuation and capitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>give objective tests on grammar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluate only selected pieces of writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assign grade depending on student's ability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>assign grade according to individual improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8- To what extent do you consider the following to be written composition problems for the students? Use an E to indicate English and an F to indicate French.

<table>
<thead>
<tr>
<th>Problem</th>
<th>not a problem</th>
<th>occasionally a problem</th>
<th>often a problem</th>
<th>a serious problem</th>
<th>attention not given to this problem</th>
</tr>
</thead>
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<td>capitalization</td>
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<tr>
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<td>awkward constructions</td>
<td>parallel structure</td>
<td>redundancy</td>
<td>varied sentence structure</td>
<td>outlining</td>
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### Weekly Writing Sample

**Student Identification Number:** Boy #2

**Grade:** 2

#### Descriptive Writing Scale

**Grade 2/3 French Immersion Program**

<table>
<thead>
<tr>
<th>Traits</th>
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<th>4</th>
<th>Score</th>
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<tr>
<td>Coherence</td>
<td>Never</td>
<td>Sometimes</td>
<td>Most of the Time</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>Basic Vocabulary</td>
<td>Limited</td>
<td>Vague</td>
<td>Appropriate</td>
<td>Precise and Varied</td>
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<td>Vague</td>
<td>Appropriate</td>
<td>Precise and Varied</td>
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</table>

| Writing Conventions | | | | | 8 |
|--------------------|---|---|---|---|
| Word Order Structure | Word Order | Mixed | Complete | Precise |
| Articles | Rarely correct | Sometimes correct | Often correct | Always correct |
| Plurals | Rarely correct | Sometimes correct | Often correct | Always correct |
| Basic Vocabulary Spelling | Rarely correct | Sometimes correct | Often correct | Always correct |
| Thematic Vocabulary Spelling | Rarely correct | Sometimes correct | Often correct | Always correct |
| Capital Letters | Rarely correct | Sometimes correct | Often correct | Always correct |
| Punctuation at the End of Sentences | Rarely correct | Sometimes correct | Often correct | Always correct |

| Organization of Text | Date and Greeting | Absent | Incomplete | Present | Complete | 7 |
|----------------------|-------------------|-------|------------|---------|----------|
| Introduction | Absent | Incomplete | Present | Complete | |
| Closing and Signature | Absent | Incomplete | Present | Complete | |

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<tr>
<th>Length</th>
<th>Number of Words</th>
<th>15-30</th>
<th>31-75</th>
<th>75-110</th>
<th>111 and more</th>
<th>23</th>
</tr>
</thead>
</table>
date Mardi le 35 oct. 1999

Chér ...

Je suis fateger pas ces est maman ne pas vavenire Dans Ma classe. Je suis Dans la classe De Mlle rochetson.

Jecryre le latre pasce est I Wand you to now

A Byantou
Week 17: Writing Sample

Student Identification Number: **BOY #2**

**Grade 2**

**Descriptive Writing Scale**
Grade 2/3 French Immersion Program

<table>
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<td>Thoughtful</td>
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<td>Precise and Varied</td>
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<td>Vague</td>
<td>Sometimes</td>
<td>Appropriate</td>
<td>Precise and Varied</td>
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</table>

| Writing Conventions | | | | | 13 |
|---------------------|---|---|---|---|
| **Word Order** | Word Order | Mixed | Sometimes in Order | Always in Order |
| Sentence Structure | Incomplete | Simple | Complete | Precise |
| Articles | Rarely correct | Sometimes correct | Often correct | Always correct |
| Plurals | Rarely correct | Sometimes correct | Often correct | Always correct |
| Basic Vocabulary Spelling | Rarely correct | Sometimes correct | Often correct | Always correct |
| Thematic Vocabulary Spelling | Rarely correct | Sometimes correct | Often correct | Always correct |
| Capital Letters | Rarely correct | Sometimes correct | Often correct | Always correct |
| Punctuation at the End of Sentences | Rarely correct | Sometimes correct | Often correct | Always correct |

| Organization of Text | | | | | 11 |
|----------------------|---|---|---|---|
| Date and Greeting | Absent | Incomplete | Present | Complete |
| Introduction | Absent | Incomplete | Present | Complete |
| Closing and Signature | Absent | Incomplete | Present | Complete |

| Length | Number of words | 15 - 30 | 31 - 75 | 75 - 110 | 111 and more | 69 |
---|---|---|---|---|---|---|
---|---|---|---|---|---|---|
FEV. LE 23, 19

Cher [Nom]

[Numéro]


Sa ses + Auteuil

De [Nom]
Week 1 writing sample

Student Identification Number: GIRL #5
GRADE 2

Descriptive Writing Scale
Grade 2/3 French Immersion Program

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<tr>
<td><strong>Sentence Structure</strong></td>
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<tr>
<td><strong>Articles</strong></td>
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<td><strong>Plurals</strong></td>
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<tr>
<td><strong>Basic Vocabulary Spelling</strong></td>
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<tr>
<td><strong>Thematic Vocabulary Spelling</strong></td>
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<tr>
<td><strong>Capital Letters</strong></td>
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<tr>
<td><strong>Punctuation at the End of Sentences</strong></td>
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<tbody>
<tr>
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</tr>
<tr>
<td>Introduction</td>
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<td>Closing and Signature</td>
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<td>31 - 75</td>
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<td>111 and more</td>
<td>62</td>
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</table>

Score: 14 + 12 + 11 = 37
Mardi le 5 octobre 1999

Cher(e) [nom supprimé],

Je m'appelle [nom]

Je suis une fille. J'ai 7 ans.

Je suis dans salle 5. J'ai beaucoup de amis.

Je t'écris une lettre à toi parce que je veux être ton ami.

Quelle âge as-tu ? Quelle salle est tu dans.
J'aimerais que tu fasss moi un letter a moi.

sincèrement
Week 17 Writing Sample

Student Identification Number: GIRL #5
GRADE 2

Descriptive Writing Scale
Grade 2/3 French Immersion Program.

<table>
<thead>
<tr>
<th>Traits</th>
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<th>4</th>
<th>Score</th>
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<td>Absent</td>
<td>Weak</td>
<td>Clear</td>
<td>Thoughtful</td>
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<td><strong>Supporting Details</strong></td>
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<td>Unrelated</td>
<td>General</td>
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<td>Significant</td>
</tr>
<tr>
<td><strong>Coherence</strong></td>
<td>Never</td>
<td>Sometime</td>
<td>Most of the Time</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td><strong>Basic Vocabulary</strong></td>
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<td>Vague</td>
<td>Sometime</td>
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<td>Complete</td>
<td>Precise</td>
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<td><strong>Articles</strong></td>
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<td><strong>Punctuation at the End of Sentences</strong></td>
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<th>Closing and Signature</th>
<th>Length</th>
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<td>Present</td>
<td>Complete</td>
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</tbody>
</table>
Le 23 février 2000
Chère [cachet]
C'est ton amie [cachet],
Je t'écris pour te demander pourquoi tu ne m'écris pas à moi. Pendant les vacances d'été je vais aller à une camp qui s'appelle [cachet]. Ma maman a aller à la camp de H[forcer]. Maintenant la camp de Holly burn est très très très vie. Maintenant je suis 8ar ma fête est dans l'hiver je n'aime pas ça. Je ve que ma fête est dans l'été parce que dans l'été c'est plus amusant. Ma fête est le 7 février.
Dans la classe on fait les pièces.
Pas tout le monde dans la classe
Peuve être dans tout les pièces.
On a les group. Les pièces
que je suis dans sappelle
la poule Maboule, Comment y alle
et la chose la plus précieuse.
La chose la plus précieuse et
mon nouveau pièce. J’aime
tout les pièces beaucoup/
sont très bon. Mon professeur
a mis ses pièces sur la
film, La poule Maboule, Comment
y aller et Rumpelstilskin. Ils
sont très très bien.
Quand est ta fête ? quelle
est ta favorite fruit. À bien tot ton
amie L-
Week 1 writing sample

Descriptive Writing Scale
Grade 2/3 French Immersion Program

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<tr>
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Mardi le 5 Oct 1997

Chère [Nom],


Je veux écrire à toi parce que je veux écrire à toi.

Est-ce que tu aimes ton numéro?

Est-ce que tu aimes les cartes de Pokémon?

Est-ce que tu aimes moi?

J'aimerais que tu écris à moi.

Sincèrement, [Nom]
**Week 17 Writing Sample**

**Student Identification Number:** Boy #1

**Grade 2/3 French Immersion Program**

### Descriptive Writing Scale

<table>
<thead>
<tr>
<th>Traits</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content and Vocabulary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main idea</td>
<td>Absent</td>
<td>Weak</td>
<td>Clear</td>
<td>Thoughtful</td>
<td>16</td>
</tr>
<tr>
<td>Supporting Details</td>
<td>Repetitive</td>
<td>Unrelated</td>
<td>General</td>
<td>Pertinent</td>
<td>Significant</td>
</tr>
<tr>
<td>Coherence</td>
<td>Never</td>
<td>Sometime</td>
<td>Most of the Time</td>
<td>Always</td>
<td></td>
</tr>
<tr>
<td>Basic Vocabulary</td>
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<td></td>
</tr>
</tbody>
</table>

### Writing Conventions

<table>
<thead>
<tr>
<th>Word Order</th>
<th>Words in Own Order</th>
<th>Words in Mostly Foreign Order</th>
<th>Words in Complete Foreign Order</th>
<th>Words in Always Foreign Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence Structure</td>
<td>Incomplete</td>
<td>Simple</td>
<td>Complete</td>
<td>Precise</td>
</tr>
<tr>
<td>Articles</td>
<td>Rarely correct</td>
<td>Sometimes correct</td>
<td>Often correct</td>
<td>Always correct</td>
</tr>
<tr>
<td>Plurals</td>
<td>Rarely correct</td>
<td>Sometimes correct</td>
<td>Often correct</td>
<td>Always correct</td>
</tr>
<tr>
<td>Basic Vocabulary Spelling</td>
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<td>Always correct</td>
</tr>
<tr>
<td>Capital Letters</td>
<td>Rarely correct</td>
<td>Sometime correct</td>
<td>Often correct</td>
<td>Always correct</td>
</tr>
<tr>
<td>Punctuation at the End of Sentences</td>
<td>Rarely correct</td>
<td>Sometime correct</td>
<td>Often correct</td>
<td>Always correct</td>
</tr>
</tbody>
</table>

### Organization of Text

<table>
<thead>
<tr>
<th>Date and Greeting</th>
<th>Absent</th>
<th>Incomplete</th>
<th>Present</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Absent</td>
<td>Incomplete</td>
<td>Present</td>
<td>Complete</td>
</tr>
<tr>
<td>Closing and Signature</td>
<td>Absent</td>
<td>Incomplete</td>
<td>Present</td>
<td>Complete</td>
</tr>
</tbody>
</table>

### Length

<table>
<thead>
<tr>
<th>Number of words</th>
<th>15 – 30</th>
<th>31 – 75</th>
<th>75 – 110</th>
<th>111 and more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>11</td>
<td>71</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
le 23 fév. 2000

Cher [nom], c'est moi ton ami [nom].
Comment ça va ? J'ai des bon nouvelle.
La semaine passer je suis allé à un parti de hockey, le cinq fév. Je suis allé sur
était aussi peut-être sa allé à la surly.
Combien de personne habite à la France ? Quand est-ce que tu
célébre la Saint-Valentin?
Il te plait écrire à moi plus toi.
Sincèrement, [nom]
# Week 1 Writing Sample

Student Identification Number: **GIRL #2**  **GRADE 3**

## Descriptive Writing Scale
Grade 2/3 French Immersion Program

<table>
<thead>
<tr>
<th>Traits</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main idea</strong></td>
<td>Absent</td>
<td>Weak</td>
<td>Clear</td>
<td>Thoughtful</td>
<td>13</td>
</tr>
<tr>
<td><strong>Supporting Details</strong></td>
<td>Repetitive Unrelated</td>
<td>General</td>
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<td>Significant</td>
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<tr>
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<td>Most of the Time</td>
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<td><strong>Basic Vocabulary</strong></td>
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<td>Sometime Vague</td>
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<td>Precise and Varied</td>
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<tbody>
<tr>
<td><strong>Word Order</strong></td>
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<td>12</td>
</tr>
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<td><strong>Sentence Structure</strong></td>
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*Note: The table above is a standard rubric for evaluating descriptive writing in French Immersion programs, focusing on content, vocabulary, coherence, and conventions.*
Date: mardi 31 octobre 5 \(1999\).
Chér(e) G______

C'est moi ___
J'ai 8 ans.
Je suis dans la classe de Mlle. Robertson.
Je suis dans Salle 5.
Je suis dans 3iernané.

Je écrinéditor par e-ce-geu
Mlleadit et je veux voir
Comon tout est.

Qes-que c'est tu couler
favorit?ese-geu tout amei
madam G______? y elle age
a tout? J'ai abilest
ese-geu tout a les frers
ouser? ese-geu tout
amei lescheve blane ou
noir ou brune?
J'aurais voulu tout écrire à moi.

Sincèrement
**Week 17**  
writing sample

**Student Identification Number:**  
**Girl #2**  
**Grade 3**

**Descriptive Writing Scale**  
Grade 2/3 French Immersion Program

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| Writing Conventions                 |   |   |         |       |       |
| Word Order                          | Mixed | sometime | my order |   |   |
| Sentence Structure                  | Incomplete | Simple | Complete |   | Precise |
| Articles                            | Rarely correct | Sometimes correct | Often correct | Always correct |
| Plurals                             | Rarely correct | Sometimes correct | Often correct | Always correct |
| Basic Vocabulary Spelling           | Rarely correct | Sometimes correct | Often correct | Always correct |
| Thematic Vocabulary Spelling        | Rarely correct | Sometimes correct | Often correct | Always correct |
| Capital Letters                     | Rarely correct | Sometimes correct | Often correct | Always correct |
| Punctuation at the End of Sentences | Rarely correct | Sometimes correct | Often correct | Always correct |

| Organization of Text                |   |   |         |       |       |
| Date and Greeting                   | Absent | Incomplete | Present | Complete |   |
| Introduction                        | Absent | Incomplete | Present | Complete |   |
| Closing and Signature               | Absent | Incomplete | Present | Complete |   |

| Length                              |   |   |         |       |       |
| Number of words                     | 15 – 30 | 31 – 75 | 75 – 110 | 111 and more | 207 |
Ven. le 23 fév. 2000

Chère [Nom]

C'est moi, ton ami [Nom].

Comment ça va?

Je t'écris ce message pour te dire mais bonne nouvelles, tout c'est que j'ai te dire que j'ai un chine? Metteno elle est très vieux est pour ma fête j'ai reçu 2 petites pois. Ils sont des guppies. J'ai un fille est un garçon. La fille s'appelle fanie parce que sa queue est comme un ventilateur. Le couleur de fanie est blanc est orange. Le garçon s'appelle Jamme.
À bientôt sincèrement,
parce que dès fois il regarde comme un poisson Mexicain et à Mexico j'ai nagé avec un dauphin qui s'appelle Gamma mais on ne sait pas si Gamma est une fille ou un garçon. Je ne c'est Gamma est bleu, blanc et orange.
Pas où le message que tu me écris alors je m'excuse si je ne répond pas à tes questions.

Voici ma Liza plat elle est fragile s'il te plaît apporte à ta maison est écrire un journal de tout les choses que tout a fait avec. Est retournez à moi dans le jour. J'ai hâte de recevoir tes nouvelles est le journal...