L'impact des jeux vidéo sur la maîtrise des temps verbaux en anglais langue seconde/ The effect of video games on the mastery of verb tenses in English as a second language (ESL)

Mémoire

Maxime Gagné

**Maîtrise en linguistique de l'Université Laval
offerte en extension à l'Université du Québec à Chicoutimi**

Maître ès arts (M.A.)

Département des arts et lettres
Université du Québec à Chicoutimi
Chicoutimi, Canada

Faculté des lettres et des sciences humaines
Université Laval
Québec, Canada

Résumé

Les jeux vidéo ne sont pas seulement une source de divertissement, étant donné qu`ils constituent aussi un apport linguistique authentique pour les apprenants de langue seconde. Cette étude tente de déterminer l`impact des jeux vidéo sur la maîtrise grammaticale de l`anglais comme langue seconde de manière spécifique, parmi un échantillon ciblé de Québécois. Afin de vérifier l`hypothèse supposant que les jeux vidéo mènent à un niveau supérieur de maitrise de l`anglais comme langue seconde, un sondage a été envoyé à 16 participants volontaires. Ils ont été divisés en deux groupes spécifiques, les joueurs et les non-joueurs. Les participants ont écrit un texte d`environ 250 mots en anglais sur un sujet libre. Chaque texte a été évalué selon la qualité grammaticale et lexicale. Tous les participants étudiaient à l`UQAC et étaient tous originaires de régions très majoritairement francophones d`un point de vue historique. De plus, un petit nombre de participants ont été observés directement alors qu`ils jouaient dans le but d`évaluer l`usage spécifique et la fréquence de certains temps verbaux communs. Tous les textes ont été évalués selon le bon usage des temps verbaux et les données ont été recueillies d'après le nombre d`erreurs grammaticales et lexicales. La comparaison de ces éléments rend possible d`analyser ces deux groupes de participants d`une manière qualitative. En général, les joueurs ont mieux performé statistiquement que les non-joueurs, autant au niveau grammatical que lexical. Ils ont également fait moins d`erreurs. Cependant, il est devenu évident lors de cette étude que d'autres sources pouvaient aussi contribuer à la maîtrise de l`anglais comme langue seconde.

Abstract

Video games are not only a source of entertainment, as they also provide authentic language input for second language learners. Specifically, this study investigates the effect of video games on grammatical mastery of English as a second language (ESL) among a targeted sample of Quebecers. To test the hypothesis that video games impact a higher level of mastery of ESL, an online survey was distributed to 16 volunteer participants who were divided into two specific groups identified as gamers and non-gamers. Participants provided a written text in English of approximately 250 words on any topic which was evaluated for grammar and lexical quality. All participants were UQAC students, and all students were identified as originating from historically high percentage French-speaking environments. Moreover, a small sample of participants was directly observed during the process of gaming to evaluate the specific use and frequency of certain common verb tenses. All submissions were evaluated for the correct use of verb tense and data was gathered based on the number of grammatical and lexical errors. Comparison of these values allows for a qualitative means of analyzing these two groups of participants. In general, it was found that gamers statistically performed better than non-gamers, both grammatically and lexically. They also made fewer mistakes. However, it became apparent during this study that there are additional influences that may contribute to the mastery of ESL.

Table of contents

.

List of tables

List of acronyms

ANOVA: Analysis of variance
BELS: Bac en enseignement des langues secondes
CA: Contrastive analysis
ETD: English television drama
EFL: English as a foreign language
ESA: Entertainment Software Association
ESL: English as a second language
IELTS: International English Language Testing System
ISQ :   Institut de la statistique du Québec
L1:   First language
L2:   Second language
LSP: Language for specific purposes
MELAB: Michigan English Language Assessment Battery
MMORPGs: Massively multiplayer online role-playing games
SLA: Second language acquisition
S-R-R: Stimulus-response-reinforcement
TL: Target language
TWE: Test of Written English
ZPD: Zone of proximal development

Remerciements

Je voudrais dans un premier temps exprimer toute ma reconnaissance à ma directrice de mémoire, Natalie Rublik, qui a toujours été disponible et qui m'a bien encadré pour ce projet.

Je veux également remercier tous les professeurs qui ont contribué à ma maîtrise, que ce soit en donnant les séminaires de recherche ou simplement des conseils.

Je remercie également mes collègues de maîtrise qui ont contribué à me motiver tout au long de ce projet. L'ambiance était bonne entre les gens, ce qui rendait le tout beaucoup plus agréable.

Je tiens aussi à remercier les membres de ma famille pour leur support et l`intérêt qu`ils ont montré envers mes projets.

Finalement, je dois dire un grand merci à mes seize participants. Sans vous, cette recherche n'aurait pas pu avoir lieu. Vous acceptez de participer volontairement et ce n'est pas tout le monde qui l'aurait fait.

Introduction

According to Peterson (2010), writing is one of the four main language skills. If online roleplaying games provide practice in the four skills, they are probably beneficial for the writing competency. Most studies in the second language acquisition (SLA) field focus on speaking. Thus, determining if there is a link between video games and writing competency would fill a research gap.

Research has shown that both media and video games are linked to second language learning. It also confirmed that being exposed to English through media can play a part in learning it as a second language, especially in an informal context (Gee, 2005). "The distinction between formal and informal language learning is significant in terms of the settings of the learning (in-or-outside the class environments), and instruction which refers to focus on the form or the meaning of language" (Bahrani & Sim, 2014, p. 4). The setting is informal when language learners' exposure to the target language (TL) arises at home, school, and work or in social interaction. On the other hand, it is a formal setting when the TL is taught to a group of second or foreign language learners. According to Krashen and his comprehensible input theory, an informal context facilitates learning (Lightbown & Spada, 2001).

Today, many people play video games, which provides an informal context. In that sense, playing video games just for fun outside the classroom might lead to successful second language learning. It is relevant to determine their impact on second language learning, especially English. This study includes participants from Quebec, who are not from the island of Montreal. According to the Institut de la Statistique du Québec (ISQ, 2020), French is the mother tongue of 88.4% of Quebec's population outside of Montreal. On the island, native French speakers only make up 48.5% of the population. On the other hand, 17.8% of Montreal residents are native English speakers and some parts of the island are mainly English-speaking. In such a context, video games might be the only source of exposure to English for many people across the province of Quebec outside of Montreal. This particular

situation allows the researcher to determine the impact of video games on learning ESL more easily than if English were widely spoken in the regions where the participants come from.

There is a large variety of studies in the field of SLA. However, studying the effects of video games on ESL writing in different Quebec regions offers unique insight into this field of study. This research combines two areas (video games SLA) that have seldom been studied in the different Quebec regions, and their low number of English speakers will make it easier to determine if there is a link between video games and ESL. This study will also bring more knowledge to the field of SLA in a particular province, that of Quebec.

The research problem

Qian (2009) and MacLeod and Larsen (2011) demonstrated that media, in general, could lead to SLA. Their research does not seem to privilege one kind of media more than others. The phenomenon of video games is a prevailing one in the 21st century. Through video games, it is now possible to learn a second language in an informal context, as evident in Krashen's comprehensible input theory. In a 2017 study, Pitarch claimed that to develop foreign language skills, playing video games seems to be a useful resource. The required communication skills include both speaking and writing. Likewise, online roleplaying games offer a motivating context through which players are engaged in beneficial forms of TL interaction. The communication context in gameplay is an authentic one for learners, and it provides valuable practice in the four skills (Peterson, 2010).

With that being said, the writing skill might be improved with the use of video games. However, very few video game studies focus on the development of written competency in ESL. Most of these studies are about speaking. Suthiwartnarueput and Wasanasomsithi (2012) conducted a study of writing on Facebook. They found that Facebook enhanced students' writing abilities, but they conducted the research in a pedagogical environment. Determining if such a link exists in a non-pedagogical environment would fill a gap in the research.

a) Research goal

The goal of this research was to determine if video games had an impact on grammatical and lexical mastery in ESL. Participants wrote texts and the researcher used the number of correct/incorrect occurrences as an indicator of grammatical and lexical accuracy. Two groups were part of this research: one was exposed to video games and the other was not.

b) Research questions

1) Is there a significant difference between the number of correct verb tenses from both groups (the one with gamers and the one with non-gamers)?
2) Is there a significant difference between the number of spelling and lexical mistakes from both groups?
3) Is one or more verb tenses less mastered than the others? (All tenses are corrected.)
4) Does the game genre have an impact on the mastery of verb tenses in ESL?
5) Do other sources of input (TV, social media, reading) have a major impact on the mastery of second language (L2) verb tenses?

c) What can explain the different mistakes made by the participants?

Discursive competence can be enhanced by interacting in English while playing video games. In 2010, Peterson demonstrated that network-based games include several elements that offer several potential benefits for language learners. Moreover, he noted that while playing, learners are exposed to the TL through an authentic context, which provides valuable practice in the four skills (Peterson,2010). If video games provide valuable practice in the four skills, they may have an impact on students' writing skills. The group that is exposed to video games should have a better mastery of grammatical tenses (simple present, simple past, future, conditional, present/past perfect, present/past progressive), and should make fewer lexical and spelling mistakes than the group that is not exposed to video games.

Chapter 1 - Theoretical framework

Second language theories share a common goal, which is to determine how people learn a second language. Several fields of knowledge contribute to SLA: cognitive science, psychology, neuroscience, linguistics, sociolinguistics, and education. There are four major research strands in which these fields can be grouped. These strands are the socio-cultural dimensions, the cognitive dimensions, the linguistic dimensions, and the instructional dimensions of SLA. Each strand has a distinct orientation, but each one can guide people to find conditions that facilitate second language learning. There are many second language learning theories; however, the ones mentioned below are relevant for the current study, about the effects of video games on the mastery of verb tenses in ESL. There are also several elements to consider when conducting research about L2 writing. First, there are differences across writing systems. False friends are an example. Likewise, tense and aspect may vary from one language to another. It is important to mention that when writing in one's L2, one's first language (L1) has a role to play, which is a process that cannot be erased. L2 writers are still acquiring a language and are less able to use complex structures. They might make mistakes due to the interference of their L1. Moreover, many techniques and methods are available to conduct text-based studies. It is possible to measure and analyze some features in L2 writers' texts. These features include overall quality and linguistic accuracy. Overall quality is a global evaluation based on a scale, while linguistic accuracy is the absence of errors.

1.1   Second language learning theories

1.1.1   The acquisition-learning theory

According to Krashen, acquisition and learning are two different concepts. When a language is acquired, a person naturally assimilates it. The process of acquisition involves both subconscious learning and intuition. Real interactions between people in environments in which the TL is spoken might lead to acquisition. The learner plays an active role in such a context. The way children learn their native language is similar to the process of acquisition.

No theoretical knowledge is needed. People naturally develop functional skills in a spoken language. Those who acquire a language become familiar with various characteristics of the language; they can understand its phonetics, the way it is structured, and its vocabulary (Krashen, 1981). The acquisition is also responsible for elements such as creative communication, identification of cultural values, and oral understanding. A teenager or a young adult in an exchange program is a good example of SLA that might lead to almost native-like fluency.

Learning a language is not a subconscious process, but an active and conscious one. Learners develop explicit knowledge. This approach mainly focuses on the written form of the language. The student must strive to understand the structure and rules of a language by dissecting and analyzing parts of this language. The form is considered to be the most important element when learning a language. This approach does not focus on communication as the main objective. Learning and teaching are technical processes in which the theory is studied in the absence of the practice. When students make mistakes, teachers repress what is incorrect by correcting these mistakes. The teacher represents the authority figure (Krashen, 1981). The way students participate is mainly passive. With this approach, students will hardly be able to use the grammatical rules that they learn in a conversation. In this study, the concept of acquisition had a role to play. The participants were not taught a language while playing video games. They learned by interacting with English speakers. Although they might not have lived in an English-speaking environment, these gamers had the opportunity to communicate with English speakers through video games.

1.1.2   The cognitive approach

In the 1980s, some scientists began to question Chomsky's language acquisition hypothesis. Chomsky believed that languages were built on grammar and vocabulary and each human being acquired at least one language. The way children learn their mother tongue is mysterious. In his work *Knowledge of Language* (2004), Chomsky mentioned that

knowledge of the language is knowledge without grounds: it is neither taught nor learned knowledge.

This theory is based on the hypothesis that all human knowledge can be classified as either declarative or procedural knowledge. In brief, declarative knowledge is learned rapidly and is stored in long-term memory through images and schemas. Procedural knowledge is more complicated and refers to the gradual process by which a person learns how to do something successfully (Malone, 2012). Both procedural and declarative knowledge are needed to learn a language. These findings inform this study in that they could predict that people who use media regularly will gradually learn English over time. Those who are exposed to English media only occasionally are not expected to perform as well as those who have regular exposure to media.

1.1.3   Socio-constructivist theory

Interactive pedagogical practices can be used to foster learning effectively. Social constructivism provides a psycholinguistic explanation for that. According to this theory, a sociocultural environment is where learning takes place. Social constructivism views learners as "active constructors of their own learning environment, who learn not as isolated individuals, but as active members of society" (Mitchell & Myles, 1988, p. 162). What we learn and how we make sense of knowledge depends on where and when, such as in what social context, we are learning. Vygotsky believed that learning occurs through dialogue. Further, Vygotsky points out that learning depends on the purpose or motivation for learning, which can be described as the "activity theory" (Lantolf, 2000, p. 12). For example, if students are preparing for a test on irregular verbs, the way they acquire knowledge will differ greatly from that of people reading a message from a friend.

This theory is essential to support the hypothesis that video games might lead to language learning. When something is an activity (video games are), learning is more subconscious, as Krashen demonstrated. It becomes a more natural way to learn. As mentioned above,

motivation is different in many contexts, and students who have to learn something by rote memory for an exam may forget everything after the exam. With their social dimension, video games should lead to a more significant improvement in a second language than the use of television or radio, which do not involve social interaction.

1.1.4   Zone of proximal development (ZPD)

During the late 1920s, Vygotsky developed the concept of the ZPD. He elaborated the concept progressively until he died in 1934. In "Mind in Society: The Development of Higher Psychological Processes" (1978), Vygotsky defined the ZPD as "the distance between the actual development level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peer" (p. 86). In other words, Vygotsky (1978) claimed that the goal of the ZPD was to describe the initial level of development of a learner. Then, environmental tools, capable adults, and peer facilitation were used to determine the next level that could be reached by the learner. Social constructivism claimed that individuals learn best when working in collaboration with more skilled persons. Through this process, they can internalize new concepts and skills.

This theory informs this research in the sense that the participants, who speak English as a second language, could benefit from interacting with native English speakers. Native speakers play the role of the more skilled person. This explains why second-language speakers should learn from them. Second-language speakers should also internalize new concepts and they will likely be able to use what they learned while playing online games with native speakers on their own afterward, without any help. The ZPD also informs this research that if non-native English speakers interact online with native English speakers, they can raise their ZPD and reach another level of fluency.

1.1.5 Contrastive analysis

The study of SLA implies Contrastive Analysis (CA). Learners face different problems in the learning process. The goal of CA is to predict and explain these problems. To reach this goal, the CA compares L1 and L2 to determine similarities and differences between them. This theory emerged in the USA, in the 1940s and 1950s. The main goal of the CA to increase efficiency in L2 teaching and testing. Major theories in linguistics and psychology influenced its development. Early proponents of the CA followed notions in behaviorist psychology and assumed that language acquisition implied a process of stimulus-response-reinforcement (S-R-R), in which learners respond to the stimulus (the linguistic input). The response is then strengthened by reinforcement. To sum up, learners imitate and repeat what they hear, and learning occurs when they are reinforced for their response to the stimulus (Saville-Troike & Barto, 2018).

According to the CA theory, there will be a transfer in learning due to crosslinguistic influence. In the case of SLA, the elements that people acquired in L1 will be transferred to the target L2. The transfer is positive when the same structure is correctly used in both languages. For example, this is the case if a French speaker transfers the –s of « étudiants » to mark the plural in the English form [students]. On the other hand, there is a negative transfer when the form is not appropriately used in the L2. It is the case if a French speaker adds an "s" to an English adjective, because of the fact that there is one in French « les maisons blanches » [the whites houses] (Saville-Troike & Barto, 2018). In the process of CA, L1 and L2 are both described at each level. Comparable segments of two languages are analyzed for elements that are likely to cause problems for learners.

One of the pioneers in the field of CA was Robert Lado. To summarize his work, L2 structures are easier to master when they exist in the L1 with the same form, meaning, and distribution. In such a case, the transfer can be positive. When an L2 structure has a form not occurring in L1, it needs to be learned. However, learning a structure is not likely to be very difficult if it has the same meaning and distribution as an equivalent in L1. The structures with a partial overlap but no equivalence in form, meaning, and distribution tend to be the

most difficult ones to master since they can cause interference. Lado gave many examples about English and Spanish. However, the same principles could apply to a large number of languages (Saville-Troike & Barto, 2018) This theory informs this study in the sense that it explains many mistakes made by L2 writers/speakers. For example, the present perfect continuous tense does not correspond to a specific tense in French, although the simple present would be used in French. If a student wrote « Je joue à ces jeux depuis 10 ans » in French, it could lead to the following negative transfer "I play these games for 10 years". The appropriate form would be "I have been playing these games for 10 years".

This was a survey of second language theories that were relevant to the current study. To sum up, the participants mainly acquired English by interacting with English speakers online. They were not taught the language, so they did not learn it in a formal environment. Those who participated in this study have developed a procedural knowledge of English. In other words, learning English is a gradual process; it is not learned rapidly. According to the socio-constructivist theory, when something is an activity, learning is more natural. Those who participated played video games as a leisure time activity, which makes it easier to learn a language. According to the ZPD, the participants in this study could benefit from interacting with native English speakers, who play the role of the more skilled persons. Besides, the contrastive analysis assumes that there might be a transfer of elements acquired in L1 to the target L2. In the current study, the participants might have used utterances that were appropriate in their L1 (French) but not in English. They could think that a correct utterance in French always has an equivalent in English, which is not always the case.

1.2   Elements to consider when conducting L2 writing research

1.2.1   Differences across writing systems

L2 writers face specific challenges when using L1 and L2 writing systems. In the English alphabet, there is a range of sound-symbol relationships that second language learners have to master. Moreover, there are many writing conventions in this language that include capital

letters and punctuation. Strategies that are used by learners to analyze new words sometimes work well for their L1 system, but they are not useful for the L2 system. That explains why differences in writing systems might inhibit learners' L2 vocabulary. A limited vocabulary can, in turn, inhibit effective L2 written expression (Swan & Smith, 2001). In the case of this study, the alphabet is not the main issue since French and English have the same alphabet. Second language writers did not have to learn a new alphabet to participate. Many words in both French and English are mutually comprehensible since they share the same Latin roots. This applies especially to technical and academic words. It is less frequent in everyday vocabulary. A common problem, however, is the significant number of false friends. Here are just a few examples: "cave / cellar; isolation / insulation; demander / ask; sensible / sensitive; ignorer / not know; librairie / bookshop" (Swan & Smith, 2001, p.70).

Participants in this research might have made these kinds of mistakes. As for grammar, French and English verb grammar overlap in many areas. These areas include active/passive voice, past/present/future tense, auxiliaries, and participles. Using an inappropriate tense is a typical example of interference. The tense used in French to convey a particular meaning is often different than the one frequently used in English. Some common examples are:

I have played tennis yesterday.

I can't play now. I do my homework.

I live in London since last year.

I will tell you as soon as I will know (Swan & Smith, 2001, p. 58-60).

Verb tenses constitute the main part of this study. The participants may have used the wrong tense. In this third example, the second language writer translated the sentence the way it would be appropriate in French: « Je vis à Londres depuis l'an dernier ». However, in English, when a situation started in the past and continues in the present, the appropriate tense to use is the present perfect: [I have lived in London since last year] is the appropriate form (Swan & Smith, 2001). Participants in this study might have made mistakes with these verb tenses.

1.2.2 Tense and aspect in French and English

Temporality is expressed morphologically (tense marking), lexically (time adverbials in both languages and modals in English), and syntactically (periphrastic tenses) in both French and English. In French, the perfective aspect and the imperfective aspect are two distinct concepts. The inflectional morphology of the « passé composé » and the « imparfait » is used to represent these two concepts. In contrast, English uses the inflectional morphology of the simple past and the periphrastic expression to be "+ ing" to mark aspectual contrasts along the lines of progressivity. This aspectual distinction also exists in French, but it is expressed lexically rather than grammatically, by the idiomatic, periphrastic expression « être » en train de "[to be in the middle of] as illustrated in:

> I was reading alone.
> J'étais en train de lire seul(e).
> I was in the middle of reading alone (Ayoun & Salaberry, 2008, p. 560).

The progressive aspect is also expressed with « aller » [to go] followed by the present participle as exemplified in:

> a) Le chômage va croissant.
> Unemployment goes growing.
> Unemployment is rising.
> b) Les difficultés allaient grandissantes.
> The difficulties went-IMP growing.
> Difficulties were increasing (Ayoun & Salaberry, 2008, p. 560).

English also considers the perfective and the imperfective aspects to be distinct concepts. However, contrary to French, English does not exhibit a strict correspondence between morphological forms and aspectual values. Thus, the simple past expresses not only the perfective aspect as in (a) but also the nonprogressive aspect as in (b), as well as the habitual

aspect as in (c).

a) Mark read the entire book.
b) She drank wine.
c) They played/used to play tennis when they were children (Ayoun & Salaberry, 2008, p. 560).

Some tenses are used differently in both languages, and that is why many participants in this study might have made mistakes. Moreover, along the lines of typological analysis, the fact that the two languages share the same structure—auxiliary +past participle—might lead Francophone learners of English as a foreign language (EFL) to overuse present perfect (i.e., to express both definite and indefinite pasts with present perfect instead of only for definite past cases) (Ayoun & Salaberry, 2008).

1.2.3   The role of the L1 when writing in L2

When writers are writing in their L2, they have to think about two languages at the same time. When they are also literate and experienced in writing in their mother tongues, this is especially true. For student writers, there are both benefits and disadvantages. This was uncovered by extensive research. It must be considered that using L1 is inevitable when writing in L2. It is a normal cognitive process that students or teachers cannot erase. Using L1 is a good tool when an L2 writer is searching for a particular lexical item. The writer can first use the L1 term and then find the appropriate L2 equivalent later in the revision process (Ferris & Hedgcock, 2014). However, the use of L1 can sometimes be counterproductive. For example, translating a text that was written in L1 into L2 could lead, at its worst, to incomprehensible texts. In the case of this research, students were raised and educated in French. They necessarily thought in French while they were writing their texts. They generally had many ideas, and this would not have been possible without the use of their first language. However, they might have made mistakes in verb tenses or false friends, due to the L1-L2 translation process.

1.2.4   The overall quality of texts

Some studies are not concerned with any particular component of a text. They simply use holistic scales, analytic-scale composite scores, and ranking published tests (Test of Written English (TWE), and the Michigan English Language Assessment Battery (MELAB)) to assess the overall quality. The Jacobs scale is used by researchers who work with the analytical scale. Finally, a small number of studies use the ranking technique, in which the essays are ranked or placed into groups.

There are different reasons to assess overall quality: In 1995, after examining measures of lexical quality, Engber determined how these measures correlated with scores on the TWE. In 1996, raters put the essays in four groups without any guidelines, and Henry examined the link between qualities (such as accuracy and complexity), and the overall quality. In 1996, Tsang demonstrated the effects of a program level treatment by using overall quality scores according to the Jacobs scale. That same year, Braine (1996) examined the differences in essays of students taking ESL classes and those in mainstream university-writing courses with a holistic scale.

Choosing the most appropriate of these measures is a crucial task and often an issue for researchers. They must consider how quickly the essays can be rated with a particular measure and whether or not the raters are familiar with the scale (Polio, 2000). To conclude, the researcher has to decide whether to use an established scale or a new one. It is also important for a researcher to determine how the results will be reported. Generally, all studies should reproduce the scale used and the rating procedure.

1.2.5   L2 writers still acquiring the L2

Writers who write in their L2 have varied levels of mastery over L2 structures needed for successful writing. That is an important distinction between L1 and L2 writers. Ferris and Hedgcock (2014) described successful writing as "writing that includes and requires the

effective deployment of a range of linguistic and extralinguistic features, including vocabulary, syntax, punctuation, capitalization… Such decision-making goes far beyond simply avoiding errors" (Ferris & Hedgcock, 2014, p. 310). Advanced control of the L2 at the word and sentence level is a major tool when writing in it. Many L2 writers have less developed vocabularies, and are less able to use complex syntax. It is also a more difficult task for them to use cohesive devices, such as transitions, pronouns, and synonyms. Those who participated seemed to have a good level of English but they were native French speakers. Their vocabulary was certainly less developed in English and they might have been less able to use complex syntactical structures.

To sum up, the participants` mistakes may be explained by different factors. False friends can lead people to make mistakes. A French speaker could think that "demand" is the translation of « demander ». The correct form in this case is [ask]. Some tenses are also used differently in French and English. For example, an important difference between the two languages is that English distinguishes between the indefinite past expressed by the present perfect and the definite past expressed by the simple past, whereas French expresses both pasts with the « passé compose ». Moreover, when writing in their L2, L2 writers have to think about two languages. They might not have a very developed vocabulary and some structures are hard to use for them. As for non-target use of English verb form by L2 learners, the optional use of bare forms of lexical verbs might explain some mistakes. The other factors that could explain them are the associated inflected forms of lexical verbs with meanings that are not those associated with the same forms by native speakers.

Chapter 2 - Literature review

Many researchers demonstrated that there might be a link between technology and SLA. Several kinds of media have been studied (TV, drama, subtitles, radio news, videos, unspecified mass media). It is important to describe the results of these studies to understand the general effect of technology on SLA. Bahrani and Sim (2011) compared the effects of technology versus social interaction on the acquisition of ESL. These two authors also conducted research about television and radio news. Danping (2012) conducted research about TV drama, while Almeida and Costa (2014) worked on the effects of subtitles. Qian (2009) investigated the use of unspecified mass media. Finally, Londe (2009) described how videos influence SLA.

After considering the studies conducted by these researchers, it can be suggested that there is a link between technology and SLA. Thus, it is crucial to describe studies that examine the relationship between playing video games and writing competency. The current study examines the effects of video games on the mastery of verb tenses in ESL. Thus, this study would not be complete without describing what other research has found regarding the effects of video games on SLA. Peterson (2010) conducted studies about online games, as did Pitarch (2017), but in a more formal environment. Moreover, Chapelle (2007) suggested that computer-assisted learning may provide learners with new options for language learning.

These studies concerning video games, just like those about other kinds of media, all suggested that there is a possible link between technology and SLA. However, they were mainly focused on oral fluency. In the current study, written competency was the focus. For this reason, studies about L2 writing must also be considered. Silva compared L1 and L2 writing, while Armstrong and Retterer (2008) described the effects of a blog on L2 writing. Finally, Suthiwartnarueput and Wasanasomsithi (2012) described the effects of using Facebook as a medium for grammar and writing discussions. The authors suggested that the use of Facebook for these discussions was possibly linked to writing fluency.

2.1 Media in general

2.1.1 Technology versus social interaction

Language learning can occur outside the classroom setting according to the informal language learning theory. Interaction with native speakers or exposure to authentic language input through technology can lead to unconscious or incidental learning. To explore which source of language input would have a greater impact, Bahrani and Sim (2012) compared the speaking proficiency of two groups in a longitudinal study that lasted one year. There were 100 participants in both groups. EFL[1] participants from Iran were exposed to audio/visual mass media[2] and ESL[3] participants from Malaysia were exposed to interaction.

One year after, all the participants took a second parallel speaking fluency test from International English Language Testing System (IELTS). It was used as a post-test to check if the participants' speaking fluency had changed. Speaking proficiency includes six major components: fluency, accuracy, comprehension, communication, vocabulary, and accent. The post-test demonstrated that EFL participants outperformed ESL participants in terms of speaking proficiency. These results showed that being exposed to audio/visual mass media technology could have more effect on speaking fluency development than social interaction, although it might depend on the quality of social interaction (Bahrani & Sim, 2012).

Subsequently, Bahrani (2011) compared the effects of social interaction in an ESL context (Malaysia) and that of technologies in an EFL context (Iran). Participants in this study initially included one hundred language learners: males and females from Iran (EFL context), and males and females from Malaysia (ESL context). There was a significant difference between EFL and ESL participants' performance. In terms of speaking proficiency, participants in the EFL context outperformed those in the ESL context. This seems to indicate

---

[1] An environment where the English language is not the primary or secondary language spoken.
[2] Technology that is intended to reach a mass audience.
[3] An environment where the English language is spoken in society as the official language or the medium of communication among people from different countries' participants in social interaction.

that exposure to audiovisual mass media technology has a more positive impact on speaking proficiency than social interaction.

With these two studies, it is can be suggested that media provide comprehensible input. The results of these two studies share similarities with those of Qian's work involving the linguistic integration of Chinese students in Ontario (Qian, 2009). It is suggested that one can get more benefits from using media instead of social interaction. In MacLeod and Larsson's study in Sweden (2011), results suggest that media input is related to SLA. In Sweden, English media are very popular and they are the main source of input, while interaction in English is not common. With these studies, a general conclusion can be made: media constitute a significant source of language input. Bahrani and Sim`s (2011) participants, who were from Iran, shared a characteristic with those who participated in this study; they lived in an environment where they did not interact in English. Although they did not necessarily play video games, these participants from Iran had a good level of English. It is then probable that the participants could improve their English by playing video games while living in a French-speaking environment.

2.1.2   Television and radio news

According to Bahrani and Sim (2011), television and radio share particular characteristics that make them different from other genres from a linguistic point of view. TV and radio news both have many advantages: they do not include ambiguous structures; their discourse is specific and their speech is fluent. In their research, Bahrani and Sim (2011) compared the level of speaking proficiency achieved by a group exposed to TV and radio news to that of a group exposed to non-news sources in the EFL context of Iran. Two hundred third-year language learners majoring in TEFL[4] were selected to participate. In Iran, students take courses about the translation of TV and radio materials in the third year.

---

[4] Teaching English as a Foreign Language

The experiment demonstrated that greater exposure to TV and radio mass media news could improve EFL learners' speaking proficiency to a significant extent. In contrast, EFL learners 'speaking proficiency might not be improved by greater exposure to non-news mass media programs. These outcomes challenge the work of Danping (2012) about television drama in China. According to Damping's participants, the news is less authentic and the speech used by broadcasters is not the one used in everyday life. However, it might only be the opinion of Danping's subjects.

Subsequently, Bahrani and Sim (2011) focused on the role of audio/visual mass media news in language learning. When it comes to language learning, the content of the news and the linguistic difficulty are the important issues to consider when preparing and selecting TV news. The content of the news can be specialized or universal. Specialized contexts are generally more difficult to understand than universal contexts. The linguistic difficulty of TV news consists of acoustic,[5] lexical, syntactic,[6] and text-type difficulties.[7]

The experiment lasted for one year (three hours a week). Group one was exposed to news media, while group two was exposed to non-news programs. Participants from both groups had to work on their respective programs both in and outside the classroom with researcher-monitoring (Bahrani & Sim, 2011).

The news provided a greater improvement in speaking fluency, which suggests its usefulness in SLA. Bahrani and Sim (2011) showed in their studies that news programs can lead to a significant improvement in ESL and that some kind of news is more useful for language learning. These authors believe that the news is a very useful resource to learn a language, although it does not imply interaction. Those who participated in the current study interacted in English while playing video games. Just like Danping (2012) mentioned, the speech used by broadcasters is not the one used in everyday life. There is a possibility that it is easier for

---

[5] The acoustic characteristics of a text include speech-rate, pause phenomena, hesitation, stress and rhythmic patterning.
[6] TV news as a whole and news items in particular contain a high degree of redundancy.
[7] Narrative vs non-narrative, visual vs spoken

the participants to understand the speech used in everyday life. The language used by gamers is similar to the one that people generally use.

2.1.3 TV (drama)

Danping (2012) described five ESL learners' personal experiences of learning English through ETD[8]. All these participants needed to use English to communicate with most of their students while teaching Chinese to foreigners in China.

Watching English television drama (ETD) can help ESL learners to identify significant parts that they need to learn or strengthen. It is a useful tool that learners can use to pay close attention to elements that are not frequently taught or difficult to teach to ESL students, such as pronunciation and intonation, the semantics of words in contexts, and gestures and facial expressions in particular situations. Participants in this study believed ETD provides a more communicative and more authentic context than news reports, radio programs, and short stories from their textbooks. In other words, the language in ETD more resembles everyday communication. Danping's study highlighted the fact that authentic input is important, and that more informal speech may have a better effect on acquisition. This might be true since it is closer to the language spoken by people in everyday life. The speech used in TV drama is more informal than the one used by broadcasters. It is also similar to the speech that those who participated in the current study use and hear while playing video games. The participants in this research interacted in English, which was not the case for Danping (2012). It can be suggested that interacting facilitates learning.

2.1.4 TV (subtitles)

In a study about subtitling, Almeida and Costa (2014) argued that many studies suggest that foreign language acquisition may be facilitated by watching subtitled television programs and movies. In Europe, several television programs and movies are imported from foreign

---

[8] English television drama

language countries. Subtitling is used along with dubbing and voice-over. While watching subtitled programs, the viewer can learn the word meaning, the meaning of expressions, standard sentences, pronunciation and slang, and how to distinguish separate words. In other words, subtitled programs lead learners to different kinds of language acquisition. Language learning generally happens in informal contexts through watching subtitled programs. However, some studies show that there is a growing interest among foreign language teachers to use excerpts of television programs such as news programs (Vann, 1996), soap operas (Grant, 1996), and music programs (Mason, 1997) for educational purposes (Almeida & Costa, 2014).

This work is relevant in the sense that it highlights the concept of subtitles. This confirms that the media can help learners focus on some particular language aspects. This study is interesting for this research in the sense that in some video games, gamers could use subtitles to follow the instructions. If the participants in the current research used them, this could contribute to improved mastery of English.

2.1.5   Unspecified mass media

Qian (2009) investigated Chinese ESL students' use of host mass media (communication to a large group, or groups of people in a short time) and how they were able to acquire host communication competence and acculturation from their perspective through this use. The study included nine participants at a university in Ontario. To ensure some variety in the students' interests and experiences, students from various disciplines with different degree programs were selected based on the research questions and the kind of information that the author needed. Findings suggest that the most important source of influence on these students' acquisition of host communication competence was host mass media.

Participants encountered various kinds of difficulties in the learning process. To deal with these difficulties, they used different media as tools and employed different strategies to improve their English language competence. It appears that to a certain degree, "their active

use of media complemented their limited scope of language learning through insufficient participation in host interpersonal communication" (Qian, 2009, p. 240). As mentioned earlier, the outcomes of this research are different than those of Bahrani (2011 & 2012). Moreover, it is worth confirming that the hosting society ought to take responsibility because the media cannot create the perfect integration into society. Organizing workshops is a tool that universities can use to compensate for the lack of integration of some students.

MacLeod and Larsson (2011) outlined the exposure to the English language that is experienced by students between the ages of 14 and 16 in Swedish schools. "They tried to establish the nature of English influence on teenagers in Swedish schools and then they examined whether this naturally occurring acquisition of knowledge was utilized in the more formal language learning environment of the classroom" (MacLeod & Larsson, 2011, p. 3). Media output from English-speaking countries has become a part of Sweden's society and it might be the main reason for English exposure in the country. According to Ellis, "It is self-evident that SLA can take place only when the learner has access to L2 input" (MacLeod & Larsson, 2011, p. 11). To acquire knowledge, it has to be available in some form. This is where the daily exposure to English through various media becomes relevant.

To conduct this research, MacLeod and Larsson interviewed a total of eight students. Four of them were in year nine, and the four others were in their first year of upper secondary school. To carry out this case study, the researchers used a quantitative survey and qualitative interviews. "This facilitated validation through cross-examining the different sources, providing them with more confident results. Conducting interviews, using survey results as a foundation, entitles the researcher to test findings upon different sources" (MacLeod & Larsson, 2011, p. 15).

The significant results demonstrated that students are heavily exposed to aural English. Additionally, computers and the Internet play an important role in exposure to English outside the classroom, although Swedish versions are now available. However, most students in the study frequently watched English television or video. Students feel that the "average

amount of relevant English can be found in the classroom environment, but they also consider that input outside of the classroom is needed" (MacLeod & Larsson, 2011, p. 24-25).

This study is similar to Qian (2009) in its consideration that many kinds of media can make a difference in the learning process. Likewise, MacLeod and Larsson's study (2011) supposed that a language is normally not learned only in a classroom and foreign language students should be concerned that media are a good source of exposure in a foreign language context. Their study is relevant for this research. The participants in this study also had English courses at school and lived in a place where English was not the main language. Outside the classroom, these participants were exposed to English by playing video games, but also by watching TV and using social networks (many of them did). Just like MacLeod and Larsson's participants, those who participated in this study were exposed to English in a significant way outside the classroom.

2.1.6   Videos

In a study about the effects of video media in ESL listening comprehension tests, Londe (2009) stated that the emergence of powerful computers in language testing had permitted the use of video media in second language computer-assisted listening comprehension tests. The researcher examined two video formats in this study (close-up view of the head of the lecturer, and full-body view of the lecturer). To determine if there were any performance differences when different formats were used, the researchers compared the two formats to the audio-only format in a listening comprehension test setting.

This research employed a quasi-experimental design that used three conditions. The researcher applied an analysis of variance, also called ANOVA, to investigate the differences in test performance. The delivery formats were the independent variables, the scores on the tests were the dependent variables. A fairly homogeneous group of 101 and one students participated in the study. Before being accepted to the university, all the participants had their level of English tested, and they all had participated in academic lectures either in their home country or in this country (Londe, 2009).

The results suggest that the three different delivery formats did not influence second language learners in listening comprehension tests. It is plausible that the addition of the visual channel could add information to the input, but it did not seem to affect the performance of those who took the test. The input formats did not help nor hinder test takers. It seems that information processing occurred with similar results, even though the delivery methods were different. The results of this research counter those of the study about subtitles by Almeida and Costa (2014). However, Londe (2009) only used a video with a view of the lecturer, which might not give as many clues as subtitles do. If one can see what is being said while watching a movie, it may be easier to remember words and structures, especially for beginners. However, if the video only shows a face or a body, this is not as useful. Most of those who participated in this study have been playing video games for years. They may be able to understand these formats. However, when they were beginners, subtitles would have provided better help for them to understand some instructions, just like Almeida and Costa (2014) stated in their study. The next section is about video games and computers, which is closer to the topic of this study.

2.1.7   *Video games and computers*

2.1.7.1 Online games

Peterson (2010) mentioned that online role-playing games offer a motivating context, which elicits engagement in beneficial forms of TL interaction. In second language learning, massively multiplayer online role-playing games (MMORPGs) appear as promising areas. Several elements that are incorporated in network-based games offer many potential benefits for language learners. While playing, the context through which learners are exposed to the TL is authentic, which provides valuable practice in the four skills. "Studies have also shown that as MMORPs are designed to facilitate social communication and teamwork, users frequently form communities based on their in-game interaction" (Peterson, 2010, p. 432). "World of Warcraft" led to good results. "EverQuest" did too, especially among more advanced learners.

Finally, the post-test scores of a study by Rankin, Morrison, McNeal, Gooch, and Shute (2009) were analyzed. This analysis revealed that the participants playing the games by themselves and with the native speakers demonstrated a significantly higher understanding of the target vocabulary than those who do not play by themselves (Peterson, 2010). This research is very similar to that of Pitarch (2017), in which the use of video games for educational purposes was described. However, Peterson's study suggests that some games could be better than others in terms of second language input. Despite this, the overall conclusion of this study supports the use of online games. Peterson's research is particularly relevant for the current study. Many of the participants played online interactive games and this means that the communicative context of these games could provide practice in the four skills. It could improve their writing competence. However, Peterson found that some games could be better than others in terms of input. This was not confirmed in this study.

2.1.7.2 Video games or online games

Pitarch (2017) described the use of video games for educational purposes. They can increase learners` time of exposure in an entertaining way, which can provide great support for language learning. Video games can also help learners develop their foreign language skills. However, their main goal is to help learners develop communication language skills and acquire specific terminology. It seems that graphic-adventure video games "are a good resource for teaching language for specific purposes (LSP) since they simulate real-life situations that can be based on the target area of knowledge" (Pitarch, 2017, p. 178). Entertainment is a fundamental factor. A large number of students would not be motivated if there were only a teacher speaking during the course, or if the course were only about grammar-translation. Playing games to learn brings motivation to a higher level and there is no efficient learning when people are not motivated. When more traditional approaches were the norm, motivating students was likely to be a more difficult task. Although this research was not conducted in a pedagogical environment, the entertainment factor is an important one for the participants. They play games to entertain themselves. This could increase their time of exposure to English the same way that the games used in class do.

2.1.7.3 Computer-assisted learning

Chapelle (2007) suggested that computer technology may provide learners with new and varied options for language learning. CD-ROMs, Web pages, and communication software on the Internet deliver interactive tasks that can facilitate learning. Due to computer technology, learners engage in very different language experiences. This explains why any approach to SLA concerned with explaining how language development is prompted by exposure to the TL must be reconsidered by researchers (Chapelle, 2007).

Changes afforded by technology are unlikely to diminish since technology is now a part of the lives of language learners. These environments offer many resources to researchers They also represent the context in which many language learners are studying language today. Currently, it is easier to have exposure to the TL (English) than it used to be. It is everywhere on social media, on television and in the newspapers. Those who participated in this study did not necessarily use software or Web pages. However, technology provided them with opportunities for language learning. Playing video games could be considered as a change that technology afforded. The previous studies were mainly about speaking fluency. Since this research implied textual analyses, it is important to see what has been said about L2 writing in general and the effects of social networks on L2 writing.

2.2   Writing competence

2.2.1   L1 VS L2 writing

Silva (1993) examined reports of empirical research comparing LI and L2 writing. ESL writers drew major differences from their intuition. This study included 4,000 participants (most of them were undergraduate college students between 20-25) and 27 different L1s were represented. The writing tasks were carried out in class and the most frequent ones were expository essays, construction arguments. In general terms, adult L2 writing is simpler, distinct from, and less effective than L1 writing in the eyes of L1 readers. There is less global and local planning in L2 writing. Setting goals and generating material was a more difficult task for them.

25

This research suggests that writing also involves the cognitively demanding task of generating meaningful text in a second language mentioned by Myles (2002), and it is understandable that L2 writing contains more mistakes. Since the participants in this research wrote a text in their L2, the task was more demanding as their texts would probably have been more accurate in their first language.

2.2.2   *The effects of media on L2 writing*

Using Facebook as a medium for grammar and writing discussions can have benefits for low-intermediate EFL students. Suthiwartnarueput and Wasanasomsithi (2012) described these effects. Students' gain scores in the pre-test and post-test, interview responses, and students' utterances asking for explanations about English grammar and writing were used to collect the data. The difference between the results of pre-tests and post-tests was significant.

It is a fact that Facebook is a very popular social network. It can also be used by teachers as a relevant pedagogical tool. The researchers decided to use Facebook to rectify the lack of research in the field. Their goal was to determine the impact of English grammar and writing discussions among a group of low-intermediate EFL students. As in Vygotsky's theory, students construct a ZPD[9] on Facebook: by working with teachers and more capable peers, students can learn better. Suthiwartnarueput and Wasanasomsithi`s study (2012) suggested that using Facebook effectively enhanced the writing abilities of EFL students. These authors also found that this network helped students build positive attitudes in language learning.

Of course, the fact that this study was conducted in a pedagogical environment must be considered. Grammatical and writing difficulties were the main topics that students discussed on Facebook. According to this study, social media might have a positive impact on the quality of writing. However, it would be relevant to determine if such a link exists in a non-pedagogical environment. For example, if two friends discuss on Facebook every day about

---

[9] "The distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peer." (Vygotsky, 1978, p.86).

many aspects of their life, would it have the same impact on the quality of their writing? One can also wonder if audiovisual media could also improve writing competency. Just as Allen, Crossley, Snow, and MacNamara (2014), Peterson (2010), and Pitarch (2017), Suthiwartnarueput and Wasanasomsithi's study (2012) showed that motivation is a major factor in learning and that it can be facilitated by games or pedagogical tools. Their findings also suggest that Facebook creates positive attitudes among learners. In this study, participants played video games in a non-pedagogical environment and many also used social media on their own. This is a way to determine if the non-pedagogical environment also leads to successful learning.

Armstrong and Retterer (2008) examined the effect of a blog upon students in an intermediate-level Spanish class at the University of Lancaster. Sixteen students from an intermediate college-level Spanish course participated in the study. They met four times a week for 50 minutes. All of the participants stated that the blog made them feel more comfortable writing in Spanish; and that it helped them feel more confident in their ability to manipulate verb forms in Spanish. The conclusion is clear: "students think that blogging is useful. The only difference between this class and that of past semesters was that students were writing online by way of the blogs" (Armstrong & Retterer, 2008, p. 238). Students discussed topics that differed greatly; from political candidates to embarrassing moments.
For ungraded assignments, the average number of words was higher (1,775 in the ungraded assignments and 1,300 in the graded ones). In a research context, more than 3,000 words are considered to be a significant number of words. This research showed an improvement in the accuracy of students for the appropriate use of verb tense and aspect among those who wrote more than 3,000 words. This research, just like that of Suthiwartnarueput and Wasanasomsithi (2012), explored the effects of social media on writing. This one goes in a more informal direction in the sense that it includes many topics of everyday life. Things other than grammar are discussed. However, they bring positive aspects. Some of the participants in this stuy played games in which they interacted by writing. If blogging and using Facebook could be useful to improve L2 writing (although Suthiwartnarueput and Wasanasomsithi, as well as Armstrong and Retterer, conducted their research in a

pedagogical environment), it could be suggested that video games could lead to the same results.

Almost all of these studies about different kinds of media (TV, drama, subtitles, radio news, videos, unspecified mass media) suggested a link between technology and SLA. Bahrani and Sim (2012) found that mass media technology could have more impact than social interaction on speaking proficiency development. They also found that some kinds of media, such as the news, might be more helpful than others. Danping (2012) challenged Bahrani and Sim`s study about ETD. Danping mentioned that the language in ETD more resembles everyday communication than the news. Almeida and Costa (2014) mentioned that subtitling helps to improve the mastery of foreign languages. Qian (2009) suggested that host mass media were the main influence on these students' acquisition of host communication competence. MacLeod & Larsson (2011) stated that for people to learn a language, the input must be available. Londe's study (2009) about video is the only one that suggested that the three different delivery formats in listening comprehension tests did not influence learners. However, Londe only used a video with a view of the lecturer, which might not give as many clues as subtitles do. As for the studies about video games and computers, they also suggested a link with SLA. Peterson (2010) and Pitarch (2017) both concluded that video games create an entertainment factor that is fundamental for language learning. Chapelle (2007) mentioned that computer technology provides learners with various options to facilitate learning. As for L1 vs L2 writing, Silva (1993) explained that L2 writing is more demanding than L1s. Finally, blogging (Armstrong & Retterer, 2008) and using Facebook as a medium for grammar discussions (Suthiwartnarueput & Wasanasomsithi, 2012) were found to improve accuracy in L2.

Chapter 3 - Methodology

When research is conducted within a specific population, case studies are widely used in qualitative research to provide holistic descriptions. This research used this method, although it is not a longitudinal study, but rathera text-based study. Linguistic accuracy (the absence of errors) is the main feature that is studied. To conduct a case study, questionnaires are a very useful tool. They can include open-ended and closed-ended questions. Using questionnaires has both advantages and disadvantages. My questionnaire included several questions of both types. Moreover, observations are used to provide careful descriptions of learners 'activities without influencing the events in which the learners are engaged (Mackey & Gass, 2016). However, the observer's paradox might be a disadvantage. In this study, two participants were observed while playing video games. Sixteen (two groups of eight people) participants were part of this research. The survey was sent in French. The participants wrote their text in a room at UQAC. The researcher then collected and analyzed these texts. Those who participated in the current research were students at UQAC, aged 18-40. They had to be native French speakers from any Quebec region, except for the Montreal Island, since English is much more spoken there than it is elsewhere in the province of Quebec. Finally, those who took part in this research could not study in a university program in which English was studied. The participant's identity was confidential and the researcher completed an ethical review.

3.1 Qualitative research

The term *qualitative research* is associated with a large number of methods, perspectives, and approaches. Among them, there are case studies, questionnaires, surveys, and observations. this research was a case study focusing on a small number of specific people. The researcher used a questionnaire to gather information about participants. Moreover, two people were observed while playing video games. Qualitative research can also include text-based studies. These studies focus on several aspects, including the writing itself (the text), how the writing is produced by the writers (the writing process), and the attitudes, practices,

and beliefs of those who are involved in learning and teaching writing. In this research, the writing itself was the main element to focus on. The number of mistakes was used to measure linguistic accuracy. In 2013, Pathak pointed out that:

> qualitative research focuses in understanding a research query as a humanistic or idealistic approach. Though quantitative approach is a more reliable method as it is based upon numeric and methods that can be made objectively and propagated by other researchers. Qualitative method is used to understand people's beliefs, experiences, attitudes, behavior, and interactions. It generates non-numerical data. The integration of qualitative research into intervention studies is a research strategy that is gaining increased attention across disciplines. (p. 192)

As mentioned before, this research used qualitative methods (case study, questionnaire, observation, text-based study). With the questionnaire, it was possible to learn about participants' experiences and beliefs. However, the results were analyzed with a quantitative approach. It would not have been possible to answer the research questions without numerical data. To sum up, it could be said that this study was a qualitative one with quantitative results.

3.2   Case studies

The main objective of case studies is to provide detailed descriptions of particular learners within a specific population. Case studies normally use a longitudinal approach, in which observations are made at regular intervals for an extended period. There are many examples of case studies. In 1983, Schmidt conducted a longitudinal case study (over three years) about Wes, a Japanese learner of English living in Japan, who frequently had to go to Hawaii for business reasons. The study demonstrated that even though there was a significant improvement in his pragmatic abilities, Wes did not improve in terms of linguistic accuracy.

Case studies can be conducted with many participants and give the researcher the possibility to focus on specific individuals. They can also be used within a particular context to compare and contrast participants` behaviors. However, it might be difficult to generalize case studies. Case studies typically include only a few participants who were not randomly

chosen, which means that the researcher must be very careful about the generalizations of the study. Although it also applies to other studies, it is even more true for case studies.

This research is a case study in some ways. It focuses on a small number of specific people (16). They were from many Quebec regions. Montreal Island was excluded from this study because English is spoken more often there. The participants had to be 18 to 40 years of age. I had two groups of L1 French speakers from different Quebec regions: one group was exposed to video games in English and the other was not. However, most of them (in both groups) were exposed to other sources of input (television, social networks, readings). Participants were not randomly chosen. The study focused on their particular situations. The goal of the study was to determine which one had a better mastery of English verb tenses by comparing their results. Lexical and spelling mistakes were also reviewed.

In the current study, there was also direct observation. Two participants were observed while playing video games in English. The researcher was there to observe with no direct interaction between the researcher and the participant. Observation is a frequent task in case studies. Most of the examples mentioned above were about observing people and evaluating their speaking fluency, but this research was about writing competency. Moreover, this study was not a longitudinal one. The researcher collected only one sample of texts. The link between the use of video games and English verb tenses/lexical and spelling mastery can be understood without extended research over time.

3.3 The case of text-based studies

In second language writing research, several factors are relevant for researchers, who work with a variety of paradigms. Researchers focus on many aspects, including the writing itself (the text), and how the writing is produced by the writers (the writing process). The attitudes, practices and beliefs of those who are involved in learning and teaching writing are also relevant to researchers. Finally, the social context must be taken into consideration. The researcher has to consider the things that are going on inside the classroom and things to

work on outside the classroom. Researchers use different techniques and methods to analyze different features in L2 writers' texts. There are nine categories of features in L2 writers' texts that are analyzed by researchers: overall quality, linguistic accuracy, lexical features, content, syntactic complexity, fluency, revision, coherence and discourse features, and mechanics (Polio, 2000). Only one of them (linguistic accuracy) will be evaluated. It is important to understand what linguistic accuracy is since it is the concept that will be used to evaluate grammatical quality.

3.4 Linguistic accuracy

Linguistic accuracy can be defined within the context of this study as the absence of errors. It might include (or not) word choice, punctuation errors, and spelling (Polio, 2000). In this study, linguistic accuracy is the use of appropriate verb tenses, correct spelling, and word choice. Accuracy can be measured with a holistic scale. Individual errors and error-free units can be counted with this method. In many cases, accuracy is measured to determine the effects of a specific program or intervention. An example of this is the study of Hedgcock and Lefkowitz in 1992, in which they used the grammar portion of the Jacobs scale to examine the effects of peer versus instructor feedback. In 1986, Robb, Ross, and Shortreed tried to understand the effects of feedback types by using several measures of error-free units.

The goal of using grammatical quality/accuracy is not linked to a specific program, but the specific reality of videogames. It is important to consider that some challenges come with measuring linguistic accuracy. For example, researchers might not be able to use the measures if too little information is provided. In such a case, the study could not be replicated. When more information is provided, it is easier for researchers to anticipate problems when using similar methods. Moreover, studies should report inter-rater reliability more consistently. Some studies lead to nonsignificant results, which makes it difficult to determine if these results are real. Finally, holistic measures might not be suitable for a homogeneous population. The participants in this study are part of a homogeneous group (university students from different Quebec regions, aged 18 to 40), so the holistic method may not be the most appropriate for this project.

3.5 Questionnaires and surveys

Questionnaires are defined by Brown (2001) as "any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting them among existing answers" (p. 6). In many cases, the survey is presented as a questionnaire. When there is a large group of participants, this method is frequently used to collect data about attitudes and opinions. Second language researchers who use surveys can investigate a wide variety of questions. Using questionnaires allows the researcher to gather the information that could not typically be obtained from production data alone. This information can be elements that participants report about themselves such as their beliefs, their motivations for learning, or their reactions to learning (Mackey & Gass, 2016). There are specialized questionnaires that have been developed to address specific research questions or areas. For example, discourse completion questionnaires have been used to investigate interlanguage pragmatics.

Moreover, there are two questionnaire items: closed-ended and open-ended. When a question is closed-ended, the researcher determines possible answers. In an open-ended question, respondents can respond anything they see fit (Mackey & Gass, 2016). In my questionnaire (see Appendix A), most questions were open-ended. Out of the thirty questions, 16 were open-ended (3, 6, 7, 8, 9, 10, 12, 14, 16, 19, 21, 23, 25, 26, 28, 30), and 14 were closed-ended (1, 2, 4, 5, 11, 13, 15, 17, 18, 20, 22, 24, 27, 29). Depending on the question, one option may be more relevant. For question number three (concerning the types of games that participants play), it would not have been appropriate to write three or four choices, since there are too many games that can be played. For questions 12, 14, and 16, the opinions of people could be hard to guess, which made it difficult to provide choices. It was far simpler to ask respondents to write a few lines to understand what they thought.

Greater uniformity of measurement is generally involved in close-ended questions, which makes them more reliable and easier to analyze or quantify. Most of the open-ended questions in this research were used to determine the number of hours that participants spent playing video games, watching English TV, and writing in English. It would not have been

appropriate to give choices in these cases since the answers would have been less precise. On the other hand, open-ended items allow respondents to express their thoughts and ideas in their own manner and thus may result in more unexpected and insightful data (Mackey & Gass, 2016). When participants were asked to explain why video games are a good or a bad source of exposure to English in Saguenay-Lac-St-Jean, unexpected results may have arisen. These games are likely to be a superior method of exposure, as the literature review demonstrated.

However, it is more difficult to analyze open-ended questions, since they are more complex than closed-ended questions. The questionnaire must be structured to answer the type of questions that are addressed in a research study. If the research is relatively unstructured, asking open-ended questions may allow participants to create hypotheses. Once these hypotheses are formulated, the researcher can ask closed-ended questions to focus on important concepts (Mackey & Gass, 2016). A questionnaire can blend different types of questions depending on the purpose of the research. It is not necessarily open-ended or closed-ended but a combination of both types of questions. What has previously been learned about the research phenomenon also influences the type of questions.

In this research about video games and their impact on the mastery of English verb tenses, it was important to determine whether or not the games played by the participants included interaction. In question 4, participants were asked if they used the interactive functions of the games. They could only answer yes or no, which meant that this question was closed-ended. However, question 7 was about the exact number of hours that participants spent interacting. This was an open-ended question. Sometimes, some questions implied longer answers, which require open-ended questions. For example, in questions 12, 14, and 16, knowing the exact opinion of the participants could bring insightful data to support or refute the initial hypothesis of this study, which is that there is a link between video games and English verb tense mastery.

Both advantages and problems arise with the use of questionnaires. One of the primary advantages is that they can elicit longitudinal information from learners in a short period (data that are gathered for the same subjects repeatedly over a while) (Mackey & Gass, 2016). However, this was not the case in this study. Data were only collected once, due to time constraints. If time was not an issue, it would have been very useful to do a longitudinal study with a similar topic. Moreover, by using questionnaires, the researcher can elicit comparable information from many respondents. For the current research, it was an advantage. Likewise, a questionnaire can be administered through different forms (e-mail, phone, mail-in forms, and in-person). For this research, it was sent via e-mail to allow participants to answer the questionnaire freely and at their convenience without the pressures of time constraints or availability.

On the other hand, some problems can arise from the use of questionnaires. Many people find it difficult to describe phenomena such as perceptions and attitudes, which means that their answers might be inaccurate or incomplete (Mackey & Gass, 2016). Whenever possible, questionnaires should be in the learners` first language. In this project, this should not have represented a major difficulty. The questionnaire was in the participants` L1, which allowed less constrained answers. Furthermore, the questions were not linked to very personal topics that are difficult to describe. If children were asked to describe how they felt when their parents divorced, the responses might be emotionally difficult to explain. Therefore, there are many complexities in the phenomenon that is studied and questionnaires do not always provide a complete picture of all these complexities. It is especially important to consider this aspect when using open-ended questionnaires. Participants may not feel comfortable expressing themselves in writing, and they can choose to give only abbreviated answers in such a case.

In this study, most open-ended questions only required a number, which meant that abbreviated answers should not have been an issue. Out of the 16 open-ended questions, only three required a more elaborate answer. Even if some participants wrote abbreviated answers, the problem was not major. Participants should be given enough time to specify their answers. For this project, they were allowed to answer the questions on their own, without

being constrained by a time limit. Finally, when learners have limited literacy, allowing them to provide oral answers to the questionnaire is a good option (Mackey & Gass, 2016).

3.6   Observations

As Mason (1996) noted, observations usually refer to "methods of generating data which involve the researcher immersing [him or herself] in a research setting, and systematically observing dimensions of that setting, interactions, relationships, actions, events, and so on, within it" (p. 60). The goal of this method is to provide careful descriptions of learner's activities without influencing the events in which the learners are engaged. In some cases, observations are highly structured and the researcher uses a detailed checklist or rating scale to facilitate the recording of details. The researcher may rely on field notes or transcripts of the event if the observation is less structured. When the researcher needs to collect large amounts of rich data on the participants' behavior in a specific context, observations are a useful tool.

However, observations normally do not allow the researcher to understand the motivations behind participants' behavior, and the observer's paradox is also an important disadvantage. The simple presence of an observer can be enough to influence the linguistic behavior of participants. In this research, this might have been an issue, since the researcher was there when the participants were writing their texts. They might have felt stressed for this reason. To address this issue, the researcher tried to be as quiet and calm as possible. The Hawthorne effect is also possible: learners might perform better because of positive feelings at being included in a study. To minimize these threats, the observer can blend into the background of a workplace, or conduct participant observation (Mackey & Gass, 2016).

3.7   Methods

3.7.1 Recruitment

Sixteen (two groups of eight people) participants were part of this research, based on text analysis. First, a survey (see Appendix A) including a background questionnaire was created on Lime Survey (http://limesurvey.uqac.ca/index.php/344935/lang-fr) to determine, among other things, the number of hours that participants spent playing video games per week. The game genre was also studied. The researcher created a background questionnaire created to control external factors such as exposure to English, gender, and age. A link to the survey and the background questionnaire was available on the UQAC website to make it accessible to students, as well as a letter of invitation (see Appendix B). Although there was a French and an English version of the survey, it was sent in French since it was the students' first language. Students who answered the survey provided their e-mails to be contacted again. About 5 to 10 minutes were necessary to complete the questionnaire.

It should be noted that participants who did not play video games had to take part in the research (control group) because it allowed the researcher to answer the question about the effects of video games on grammatical accuracy. If there were no direct comparison with a non-exposed group, the real impact of video games could not be determined. This was the reason for having two groups: a control one and an experimental one. Participants from the control group did not have to answer many questions. Once the eight participants from each group had answered (the first eight participants for each one was selected), they were contacted again by e-mail to write a text. The first eight participants were selected because there were time constraints in this research. The participants wrote the text in a room at UQAC. The date, the hour, and the room to choose were selected considering the students' availabilities. The 16 students might not have all been available at the same time, so many writing sessions were made available. They were provided with several options based on their availability. The researcher estimated that one hour was required to complete the handwritten text, but most of the participants took only 30-40 minutes.

The texts written by these students were collected and analyzed (Appendices F & G). The analysis was qualitative, but also quantitative. All tenses were corrected. Finally, it is important to state that some participants were observed while playing video games to determine what they learn in their second language based on their willingness to be observed (see Appendix C).

3.7.2 Characteristics of participants

Inclusion: The participants were students at UQAC. Since video games are more popular with young people, such a study was unlikely to be conducted with 50-year-old participants. According to the Entertainment Software Association (ESA, 2012), 53% of all gamers are in the age range 18-35. Twenty-nine per cent are children and teenagers, and only 18% are older than 35. Thus, those who participated in this research had to be aged 18 to 40. (Many university students are in this age range.) According to Statistics Canada, 89% of university students are 35 or younger. Participants also had to be native French speakers from any Quebec region, except the Montreal Island, since English is spoken more frequently there than it is elsewhere in the province of Quebec. Finally, native French-speaking students who took part in this research could not study in a university program in which English was being studied (Bac en enseignement des langues secondes /BELS, Modern Languages, English certificate). For this reason, a background questionnaire was necessary.

The participants included eight men and eight women. Gamers were all men (Appendix D) and non-gamers (Appendix E) were all women. However, this was just a coincidence. Among the gamers' group, the average age of participants was 25.5 years old. Among non-gamers, 26.5 years old is the average age. Participants who play video games have been playing for 14.25 years on average, and they spend 18 hours a week playing on average. Gamers spend much more time using other sources in English than non-gamers do. On average, they spend 8.57 hours a week reading in English. On a typical week, they also spend 7.31 hours using social networks in English, and 9.31 hours watching T.V. in English. For non-gamers, these numbers are much lower. On average, they spend 1.91 hours reading in English, 0.25 hour using social networks in this language, and 2.5 hours watching T.V. in English each week.

Table 1 - Description of samples

		Characteristics of the gamers' sample	Characteristics of the non-gamers' sample (reference sample)
		n =8	n = 8
Gender composition	Men	8 (100%)	0 (0%)
	Women	0 (0%)	8 (100%)
Mean age (years)		25.5 (Ơ = 6.09)	26.25 (Ơ = 4.77)
"Gaming" experience composition	Years of experience in "gaming"(mean number of years)	14.25 (Ơ = 5.18)	0
	Number of "gaming" weekly hours (mean number of hours)	18 (Ơ = 11.67)	0
"Pastime in English" composition (mean number of weekly hours)	Reading (hours)	8.57 (Ơ = 10.96)	1.91 (Ơ = 2.98)
	Social networks (hours)	7.31 (Ơ = 17.36)	0.25 (Ơ = 0.71)
	Television (hours)	9.31 (Ơ = 10.60)	2.5 (Ơ = 5.35)

3.7.3 Ethical considerations

The researcher completed an ethical review and revisions were made based on the committee's suggestions, to make sure that ethical principles were met. Lime Survey was used to create the survey. It is an advanced online survey system to create quality online surveys. The software is downloaded 10,000 times every month and is used all around the world by companies, universities, and individuals. It is an Open Source Software that is completely free to use. These characteristics make Lime Survey a useful and appropriate tool to use. The questionnaire that had to be answered by the participants did not request personal information, except for the e-mail address, and factors that had to be controlled. These factors included age, gender, and exposure to English. The participant's identity remained confidential and all the written texts are kept in a locked file located in the research supervisor's office.

Chapter 4 - Results

4.1   Question 1

Is there a significant difference between the number of correct verb tenses from both groups (the one with gamers and the one with non-gamers?

It is important to consider that in this study, linguistic accuracy is the use of appropriate verb tenses, correct spelling, and word choice. If all these occurrences are taken into account, we notice that the non-gamers' group use more verbal occurrences (299) than the gamers' group (251). However, the percentage of correct verb use (linguistic accuracy) is higher for the gamers' group. Out of the 251 verb occurrences in the gamers' group, 215 are appropriate. This gives a verbal accuracy percentage of 85.66%. On average, there were 31.37 verbal occurrences in this group's texts. Among these occurrences, the average number of errors was 4.5, which represents 14.33%.

In the non-gamers' group, 241 verbal occurrences out of 299 are appropriate. The percentage of accuracy in this group is 80.6%. The average number of verb occurrences in the non-gamers' text was 37.38. The average number of mistakes was 7.25. The average number of correct verb occurrences in each text was 30.125.

In terms of verbal accuracy, there is a difference of 5.1% between both groups. It should also be stated that the non-gamers' texts were a little bit longer in terms of words: they averaged 216.38 words, while the gamers' texts averaged 200.63 words. This means that the average participant among the gamers makes one verbal error in 44.6 words. The typical non-gamer makes one error in 29.84 words. The relation between verbal accuracy and the total number of words suggests that gamers also tend to perform better in that sense.

Table 2 - Grammatical accuracy

	Gamers	Non-gamers (reference sample)
Number of verb occurrences (mean)	31.37 (100%)	37.38 (100%)
Correct verb tenses (mean)	26.88 (85.7%)	30.3 (80.6%)
Incorrect verb tenses (mean)	4.5 (14.3%)	7.25 (19.4%)

Note: The non-gamers' group used more verbal occurrences (299) than the gamers' group (251).

4.2 Question 2

Is there a significant difference between the number of spelling and lexical mistakes from both groups?

Data in this table suggest that gamers made fewer lexical and spelling mistakes. The eight gamers made an average of 11.88 mistakes by text. If the number of words by text is taken into account (200.63 by text), gamers made a lexical/spelling mistake for 17 written words (5.92%).

The eight non-gamers made an average of 19.75 mistakes by text. If the number of words by text (the average is 216.38 for the non-gamers' group) is taken into account, non-gamers made one mistake for 11 written words (9.13%), which is more than gamers.

If recurring mistakes are subtracted from the total number, the results are not the same. Gamers made an average of nine mistakes per text (4.49%). According to this rule, the average number of mistakes per text for non-gamers is 15.25 mistakes (7.05%).

When recurring mistakes are considered, the difference in the number of mistakes is less important for gamers (2.88 on average) than for non-gamers (4.5 on average). However, in both cases, gamers tend to make fewer mistakes.

Table 3 - Lexical accuracy

	Gamers	Non-gamers (reference sample)
Numbers of words (mean)	200.63 (100%)	216.38 (100%)
Lexical spelling mistakes (mean)	11.88 (5.92%)	19.75 (9.13%)
Lexical spelling mistakes (without recurring mistakes)	9 (4.49%)	15.25 (7.05%)

4.3 Question 3

Is one, or more, verb tenses less mastered than the others? (All tenses are corrected)

Among the gamers, 147 verb occurrences imply the present (83) and the infinitive (64). The percentage of correct use for these two tenses is 90.48%. The non-gamers used the present and the infinitive a total of 187 times. They also used them correctly most of the time (87.17%). Gamers used these two senses with a similar percentage of correctness, while there was a more important difference for non-gamers: the present tense was correctly written 84.3% of the time, while the infinitive was appropriate 90.6% of the time. Gamers correctly used the present tense at the passive form six times out of eight (75%), while non-gamers used it appropriately one time out of two (50%).

The imperfect was much more used in the non-gamers' texts. There were 56 imperfect occurrences in their texts and only 25 in the gamers' ones. The percentage of correct use was very similar for both groups: 80% for the gamers and 78.57% for the non-gamers.

The present and the past participle were much more frequent in gamers' texts. There were 33 present participle occurrences. Out of them, 31 were appropriate. The past participle was less frequent and used a total of nine times. This gives a percentage of correct use of 93.94% for the present participle, and 88.89% for the past participle. The non-gamers tended to have more difficulty using these two tenses correctly. Eleven out of 15 present participle

occurrences were appropriate (73.33%). There were only three occurrences of the past participle, and the three of them were mistakes.

As for the future and the conditional, gamers used them correctly six times out of six, while non-gamers did so eight times out of nine (88.89%). The imperative and the passive form of the imperfect were both correctly used one single time by the gamers. The non-gamers used the past conditional appropriately twice.

Simple tenses seemed to be well mastered by both groups. However, perfect tenses seemed to be less mastered. The present perfect was more frequently used by gamers (16 occurrences vs nine for non-gamers), although their percentage of correctness (six out of the 16 occurrences were appropriate/37.5%) was lower than that of non-gamers (four out of nine/44.4%). As for the past perfect, it was only present five times. Gamers' two occurrences of this verb tense were appropriate, while only one out of three was correctly written for non-gamers. Both groups used the present perfect continuous one single time, and both occurrences were mistakes. The future perfect was only present twice in a non-gamer's text, and both cases were mistakes. Out of the 34 occurrences of perfect tenses, only 13 are appropriate. This gives a low percentage of correctness: 38.2%.

As for continuous tenses, both groups did not use them several times. However, participants seemed to master them better than perfect tenses. Only three verbs in the gamers' texts implied a continuous form (present and past continuous). Two out of three (both verbs at the present continuous) were correctly written. The non-gamers used continuous tenses a little bit more frequently (past continuous, present continuous, and future continuous). They wrote the correct form six times out of 10. The three past continuous occurrences were appropriate, while the present continuous was correctly used three times out of five. Both occurrences that implied the future continuous were mistakes. For these continuous tenses, the percentage of correct use is 61.5% (8 times out of 13).

To sum up, simple tenses are much more frequent in the texts written by participants, no matter which group they are from. These tenses seem to be mastered fairly well. Perfect tenses come in terms of occurrences, but they are the less mastered. Finally, continuous tenses are rare, but participants tend to use them more appropriately than perfect tenses.

Since the participants chose the type of text they wanted to write, they probably used the verb tenses they were the most comfortable with. However, for the use of the present tense (the most common one), gamers still tended to make fewer mistakes on average than non-gamers.

Table 4 - Grammatical accuracy by verb tense (gamers' group)

Verb tense	Gamers			Non-gamers		
	Correct occurrences	Incorrect occurrences	TOTAL	Correct occurrences	Incorrect occurrences	TOTAL
Present participle	31 (93.9%)	2 (6.1%)	33 (100%)	11 (73.3%)	4 (26.7%)	15 (100%)
Present passive voice	6 (75%)	2 (25%)	8 (100%)	1 (50%)	1 (50%)	2 (100%)
Present perfect	6 (37.5%)	10 (62.5%)	16 (100%)	4 (44.4%)	5 (55.6%)	9 (100%)
Past perfect	2 (100%)	0 (0%)	2 (100%)	1 (33.3%)	2 (66.7%)	3 (100%)
Past participle	8 (88.9%)	1 (11.1%)	9 (100%)	0 (0%)	3 (100%)	3 (100%)
Imperfect	20 (80%)	5 (20%)	25 (100%)	45 (79%)	12 (21%)	57 (100%)
Present	75 (90.4%)	8 (9.6%)	83 (100%)	86 (84.3%)	16 (15.6%)	102 (100%)
Infinitive	58 (90.6%)	6 (9.4%)	64 (100%)	77 (90.6%)	8 (9.4%)	85 (100%)
Conditional	3 (100%)	0 (0%)	3 (100%)	3 (75%)	1 (25%)	4 (100%)
Future	3 (100%)	0 (0%)	3 (100%)	5 (100%)	0 (0%)	5 (100%)

Verb tense	Gamers			Non-gamers		
	Correct occurrences	Incorrect occurrences	TOTAL	Correct occurrences	Incorrect occurrences	TOTAL
Past continuous	0 (0%)	1 (100%)	1 (100%)	3 (100%)	0 (0%)	3 (100%)
Present continuous	2 (100%)	0 (0%)	2 (100%)	3 (60%)	2 (40%)	5 (100%)
Present Perfect Continuous	0 (0%)	1 (100%)	1 (100%)	0 (0%)	1 (100%)	1 (100%)
Imperative	1 (100%)	0 (0%)	1 (100%)	0	0	0
Preterite passive voice	1 (100%)	0 (0%)	1 (100%)	0	0	0
Future perfect	0	0	0	0 (0%)	1 (100%)	1 (100%)
Future continuous	0	0	0	0 (0%)	2 (100%)	2 (100%)
Past conditional	0	0	0	2 (100%)	0 (0%)	2 (100%)
Total	216 (85.7%)	36 (14.%)	252 (100%)	241 (71.6%)	58 (28.4%)	299 (100%

Note: Gamers and non-gamers used 18 different verb tenses. Tenses at the « present » were the most frequently used by both groups.

4.4   Question 4

Does the game genre have an impact on the mastery of verb tenses in ESL?

The sports genre will not be studied since not a single participant in this study plays sports games. Likewise, the strategic genre will not be the main thing to look at, since it is played by all the participants. The three elements that will be considered are action, science fiction, and other non-specified genres.

Seven gamers out of eight play action games. Among these seven participants, the average percentage of verb tenses mistakes is 14.53%. The only gamer who does not play action games has a percentage of mistakes of 13.79%. The difference is not major and this could suggest that action games do not have a major impact on the mastery of verb tenses. However, it must be considered that the results of the only gamer who does not play action games are difficult to generalize and might be a coincidence.

As for the science fiction genre, it is played by five gamers out of eight. Among those who play this type of game, the percentage of mistakes linked to verb tenses is 12.34%. The percentage of mistakes of those who do not play science fiction games is higher: 17.94%. This could suggest that the impact of science fiction games on verb tenses mastery is more important than that of action games.

Finally, five gamers out of eight play other non-specified game genres. The percentage of verb tenses mistakes among gamers who play non-specified game genres is 16.15%. For those who do not play non-specified game genres, the percentage of mistakes linked to verb tenses is only 11.59%. It could be suggested that these non-specified game genres are not as beneficial as science fiction games. but this is only a hypothesis.

Table 5 - Impact of game genre

Verb tense	Gamers who play these games	Gamers who do not play these games	Mean percentage of mistakes - verb tenses (%) Gamer(s) who play(s) this type of game	Mean percentage of mistakes - verb tenses (%) Gamer(s) who do(es) not play this type of game.
Action	7	1	14.53%	13.79%
Strategic	8	0	14.44%	0
Science-fiction	5	3	12.34%	17.94%
Sport	0	8	0	14.44%
Other	5	3	16.15%	11.59%

Note: The gamers' group used overall 299 verbal occurrences. A single gamer can play many game genres.

Question 5

Do the other sources of input (TV, social media, reading) have a major impact?

Gamers tend to be more exposed to sources of input other than video games. They spend an average of 27 hours a week using social media in English. For non-gamers, it is only two hours each week. Among the gamers group, the percentage of verb tenses mistakes for those who use social media in English is 8.72%. For participants who do not use them, the percentage is much higher: 17.86%. Among the non-gamers group, the percentage of verb tense mistakes of participants who use social media in English is 8.82%. For non-gamers who do not use them, the percentage is 20.57%.

The number of hours that participants spend watching T.V. is similar for both groups: 11.33 hours for gamers and 10 hours for non-gamers. Among the gamers group, participants who watch T.V. in English. 16.09% of verbal occurrences are mistaken. For those who do not watch T.V., the percentage is much lower: 2.86%. The percentage of mistakes linked to verb tense for non-gamers who watch T.V. in English is 9.75%. For non-gamer participants who are not exposed to English T.V., 22.22% of verbal occurrences are mistaken.

The last source of exposure to English is reading. On average, gamers spend 14 hours a week reading, while non-gamers spend 3.75 hours. Among the gamers group, the percentage of verb tenses mistakes for participants who read in English is 13.54%. For those who do not read in English, 20.69% of verbal occurrences are mistakes. For non-gamers, the percentage of verbal mistakes for participants who read in English is 15.29%. Among non-gamers who do not read in English, 25.46% of verbal occurrences are mistakes.

To sum up, whether they are gamers or non-gamers, participants who use the three other sources of exposure to English (social media, T.V. and reading) tend to have a lower percentage of verbal mistakes than participants who are not exposed to these sources. The only exception is that of gamers who watch T.V. in English. On average, their percentage of

verbal mistakes tends to be higher than that of gamers who do not watch T.V. in English. The sample was small and this might only be a coincidence.

Table 6 - Impact of exposition to other sources

Sources	Mean number of hours	Mean number of weekly hours for this pastime	Mean percentage of mistakes - verb tenses (%) among those who have this pastime	Mean percentage of mistakes - verb tenses (%) among those who do not have this pastime
Social Media	Gamers	27	8.72%	17.86%
	Non-gamers	2	8.82%	20.57%
TV	Gamers	11.33	16.09%	2.86%
	Non-gamers	10	9.75%	22.22%
Reading	Gamers	14	13.54%	20.69%
	Non-gamers	3.75	15.29%	25.46%

4.5 Question 6

What can explain the different verbal mistakes made by the participants from both groups (Appendix H)?

Moreover, 48 occurrences out of 92 (52.17%) included the wrong tense. For example, participant A7 wrote the following sentence: "Since (Over the past) forty years ago, video games **takes (have taken)** (a) considerable magnitude". The action in this excerpt represents a process that began forty years ago and that is still present. The present perfect should be used instead of the present.

Those who participated in this research made different types of mistakes. The total number of verbal mistakes was 92. Ten occurrences out of 92 (10.87%) were linked to the third-person s (missing or added). For example, participant A3 mentioned that "playing video games definatly (definitely) **help (helps)".** In this case, it is the third person singular. "Help"

should take an "s" at the end. In French, the third-person singular does not take an "s" at the end. which might be confusing for native French speakers.

Participants also made a total of 10 spelling verbal mistakes out of 92 (10.87%). For example, participant 8 wrote "**<u>practique</u>**" instead of [practice]. The participant made a spelling mistake with the verb "practice" that might have been caused by the influence of French (pratiquer).

Occurrences including the wrong choice of a verb were also common (nine occurrences out of 92. for a percentage of 9.78%). For example, participant B10 wrote this excerpt: "**<u>Stay</u> (Living)** in a city". The verb "<u>stay</u>" was not the right one to use in this context. Stay somewhere means that one lives somewhere temporarily as a visitor or guest. In this case, it is a permanent situation that corresponds to the verb "<u>live</u>" (make one's home in a particular place or with a particular person).

Likewise, five mistakes out of 92 (5.43%) were linked to a wrong or missing auxiliary. For example, participant B15 wrote this: "Why **(do)** so many students <u>leave </u>highschool (high school) before <u>having</u> their diploma? Why **(do)** so many students <u>feel</u>". The verbs "leave" and "feel" are both correctly written. However, they are part of interrogative sentences. For this reason, the auxiliary "do" must be used before the subject.

Another kind of mistake was verbal word order. Out of the 92 mistakes, five were linked to word order, for a percentage of 5.43%. For example, participant B15 wrote the following question: "Why **(don't)** young people **don't** love to go to school and can't find a sense of (give a meaning to) all the learnings they are doing (things they learn) 182 days per year"? The verb "love" is correctly written. However, it is part of an interrogative sentence. For this reason, the auxiliary "do" must be used before the subject.

There are also three occurrences out of 92 (3.26%) in which the participant used an unnecessary determinant. For example, participant B9 wrote this: "(Another) important point **it's (is)** the accent of the actor". "<u>It's</u>" is used if the neutral genre is necessary to describe something. However, it is the verb "<u>to be</u>" in this case.

Only one mistake out of 92 (1.09%) was linked to conjunction. Participant B12 wrote the following excerpt: "She<u>s **(She's)**</u> also very patient". "Shes" is a combination of the subject and the verb "to be". To clarify that they are separate entities (verb and subject), there should be an apostrophe between them.

Finally, one mistake out of 92 (1.09%) included the use of the capital letter and a missing determinant. Participant A8 wrote this excerpt: (It)**<u>Depends</u> (depends)** of (on) the kind of VideoGame (video games). "Depends" is a verb at the third person singular that represents the neutral genre. It should be used after the portable onoun "it" and therefore, its first letter should be a small one.

Table 7 - Types of mistakes

Verbal mistakes	Occurrences	Pourcentage
Wrong tense	48	52.17%
Third-person s (missing or added)	10	10.87%
Spelling mistakes	10	10.87%
Wrong choice of verb	9	9.78%
Wrong or missing auxiliary	5	5.43%
Verbal word order	5	5.43%
Unnecessary determinant	3	3.26%
Conjunction	1	1.09%
Use of capital letter	1	1.09%
Total :	92	100%

Note: Gamers and non-gamers made a total of 92 verbal mistakes, which have been categorized in nine categories.

To sum up, the difference between the number of correct verb tenses from both groups is not major. For gamers, 85.7% of verbal occurrences are correctly used. For non-gamers, 80.6% of verb tenses are appropriate. Non-gamers` texts were a bit longer on average, but the relation between verbal accuracy and the total number of words suggests that gamers were also more accurate in that sense. The difference between the number of spelling and lexical mistakes from both groups is not significant as well. If recurring mistakes are subtracted from the total number, gamers made an average of nine mistakes per text (4.49%), while non-gamers made 15.25 mistakes (7.05%) on average. When recurring mistakes are considered, the difference in the number of mistakes is less significant for gamers (2.88 on average) than for non-gamers (4.5 on average). Moreover, some tenses tend to be more mastered than others. Simple tenses were the most frequent ones in the texts written by participants. They seemed to be mastered fairly well. Perfect tenses were often used in the texts, but they seemed to be more difficult to master. Continuous tenses were rare, but participants seemed to use them more appropriately than perfect tenses. Likewise, the game genre does not seem to have a major impact on the mastery of verb tenses in ESL. The only genre that stands out from others is science fiction. Among those who play this type of game, the percentage of mistakes linked to verb tenses is 12.34%. The percentage of mistakes of those who do not play science fiction games is higher: 17.94%. However, this might only be a coincidence. Furthermore, whether they are gamers or non-gamers, participants who use the three other sources of exposure to English (social media, T.V. and reading) tend to have a lower percentage of verbal mistakes than participants who are not exposed to these sources. The only exception is that of gamers who watch T.V. in English. This might only be a coincidence. Finally, participants` mistakes were categorized in nine categories: wrong tense, third-person s (missing or added), spelling mistakes, wrong choice of verb, wrong or missing auxiliary, verbal word order, unnecessary determinant, conjunction, and the use of capital letters. Wrong tense was the most frequent category, while conjunction and the use of capital letters were the less frequent ones.

Chapter 5 - Discussion

The goal of this research was to determine if video games had an impact on grammatical and lexical mastery in ESL. Participants wrote texts and the researcher used the number of correct/incorrect occurrences as an indicator of grammatical and lexical accuracy. Two groups were part of this research: one was exposed to video games and the other was not. There is a large variety of studies in the field of SLA. Research has shown that both media and video games are linked to second language learning. Peterson (2010) stated that roleplaying video games provide practice in the four major skills, including writing. Pitarch (2017) claimed that to develop foreign language skills, playing video games seems to be a useful resource. However, very few video game studies focus on the development of written competency in ESL. There are some studies about the development of this competency, but they are based on social networks. For example, Suthiwartnarueput and Wasanasomsithi (2012) describe the effects of using Facebook as a medium for grammar and writing discussions of low-intermediate EFL students. In 2008, Armstrong and Retterer studied the effect of a blog upon students in an intermediate level Spanish class at the University of Lancaster. Other sources of input have also been studied. Bahrani (2011), Danping (2012), and Almeida and Costa (2014) all studied the effect of TV on L2 learning. It is relevant to compare the current study with the findings of these authors.to determine if there are similarities with what they suggested.

5.1 Question 1

Is there a significant difference between the number of correct verb tenses from both groups (the one with gamers and the one with non-gamers)?

Although gamers used fewer verb occurrences in their texts (31.37 on average) than non-gamers (37.38 on average), the percentage of correct verb tenses is 5.1% higher for gamers (85.7% vs 80.6% for non-gamers).

If this study is compared to that of Suthiwartnarueput and Wasanasomsithi (2012) describing the effects of using Facebook as a medium for grammar and writing discussions of low-intermediate EFL students, the results could be considered similar. Although the design is different, Suthiwartnarueput and Wasanasomsithi's study used a pre-test/post-test design. Their participants' scores were higher in the post-test. In the case of this research, this design is not used. However, gamers made something that could be considered as a test. They had an initial level of English and video games have allowed them to raise their ZPD as in Vygotsky's theory. As for Suthiwartnarueput and Wasanasomsithi's participants, Facebook helped them to build positive attitudes in language learning. They also had an initial level and the use of Facebook helped them to raise their ZPD's. Video games and Facebook can both be seen as the post-test, which have allowed participants to make fewer mistakes. The difference is not significant in this study, thus there is only a tendancy. However, the conclusion that can be drawn from this study concerning the number of words versus linguistic accuracy is not the same as that of Armstrong and Retterer, in their study about the effect of a blog upon students in an intermediate level Spanish class at the University of Lancaster. These two researchers concluded in their research that students within the subgroup who wrote significant amounts (defined as at least 3,000 words in a research context, the class average) did improve their accuracy for the appropriate use of verb tense and aspect after using the blog (this is the post-test) (Armstrong & Retterer, 2008). In this study about video games, gamers are those who wrote fewer words, despite being more accurate in their use of verb tenses.

5.2   Question 2

Is there a significant difference between the number of spelling and lexical mistakes from both groups?

The difference between the percentage of lexical and spelling mistakes from both groups is 3.21% (5.92% for gamers and 9.13% for non-gamers). If recurring mistakes are considered, the percentage of mistakes among gamers is still lower (4.49% vs 7.05% for non-gamers). Although the main goal of this research was to determine the impact of video games on verb

tenses mastery in ESL, the researcher added this question to determine if there was also a difference in the number of mistakes at the lexical level. Gamers seemed to make more recurring mistakes. If they use English more frequently than non-gamers, they might have developed bad habits that non-gamers do not have.

These findings are similar to Peterson's claims (2010), in his study about MMORPGs. He mentioned that these games are promising areas for second language learning. From the perspective of psycholinguistic research, network-based games incorporate elements that offer several benefits for language learners. While playing, the communication context through which learners are exposed to the TL is authentic and valuable practice is provided in the four skills (Peterson. 2010). If players have practice in the four skills, writing is included among them. This could explain why gamers made fewer mistakes. Peterson also claimed that participants playing the games by themselves and with the native speakers demonstrated a significantly higher understanding of the target vocabulary than the other subject group. This seems to be true in this study. If gamers make fewer lexical and spelling mistakes, they probably have a better understanding of English vocabulary. Moreover, in a study about the use of video games for educational purposes, Pitarch (2017) stated that video games are a useful resource to help learners develop their foreign language skills. Since participants in this study are from regions that are almost exclusively French-speaking, English is a foreign language for them. Gamers seemed to make fewer mistakes, which could suggest that video games allow them to improve their English skills.

5.3   Question 3

Are one or more verb tenses less mastered than the others? (All tenses are corrected)

Simple tenses seemed to be well mastered by both groups. For gamers, 206 simple tenses occurrences out of 230 are appropriate (89.57%). For non-gamers, 228 occurrences out of 273 are correctly used (83.52%). Continuous and perfect tenses are less mastered for both groups. Gamers used continuous or perfect tenses 22 times. Out of these 22 occurrences, only

10 were appropriate (45.45%). Non-gamers correctly used these tenses 13 times out of 26 (50%).

The fact that certain verb tenses are harder to master for second language speakers is normal. According to Ayoun & Salaberry (2008), an important difference between the two languages is that English distinguishes between the indefinite past—expressed by the present perfect and the definite past expressed by the simple past whereas French expresses both pasts with the « passé composé ». Along the lines of typological analysis, the fact that the two languages share the same structure—auxiliary +past participle—might lead Francophone learners of EFL to overuse present perfect (i.e., to express both definite and indefinite pasts with present perfect instead of only for definite past cases). However, in the case of this study, participants did not overuse the perfect tense. Many of them might not have considered that the perfect form implies something that happened at a certain time in the past and that has a relationship with the present. It is not the case for the simple past. This may explain why several participants used the simple past (preterite) while they should have used the present perfect instead.

5.4   Question 4

Does the game genre have an impact on the mastery of verb tenses in ESL?

Two genres were not studied (strategic and action games). Action games did not seem to make a major difference (0.74%). The percentage of verb tense mistakes was 14.53% for those who played that kind of game. The percentage of verbal mistakes for the only gamer who did not play action games was 13.79%. However, there was an important difference concerning the percentage of verb tense mistakes for science fiction (12.34% for those who played these games and 17.94% for those who did not) and non-specified genre games (16.15% for those who played this genre and 11.59% for those who did not).

Peterson's research (2010) about MMORPGs stated that EverQuest brought very positive results. It is a science-fiction game. That could explain why participants who play science fiction games in this study may have better results. Likewise, Peterson claimed in the 2010 study that World of Warcraft also brought positive results. It is a strategic game and it is hard to conclude that this genre was useful for this research's participants, since they all play strategic games.

5.5   Question 5

Do the other sources of input (TV., social media, reading) have a major impact? Analysis for gamers

Generally, for both gamers and non-gamers, the three other sources (TV., social media, and reading) seem to lead to better results. The only exception is TV for gamers. Those who watch it made more mistakes on average than those who did not watch it. This might only be a coincidence.

Indeed, many studies have shown that TV can facilitate L2 learning, which was found by Bahrani (2011), Danping (2012), and Almeida and Costa (2014). However, in these cases, participants were not gamers. TV was the main source of exposition. With participants who play video games, TV is probably not their main source of input, although they watch it.

5.6   Question 6

What can explain the different verb tenses mistakes made by the participants?

In general, incorrect tense mistakes are the most common (52.17%). The third-person singular "s" and verbal spelling mistakes are also common (both 10.87%). The percentage of mistakes linked to the wrong choice of verbs is similar (9.78%). Other types of mistakes are not common: unnecessary determinant (3.26%), wrong or missing auxiliary (5.43%), word

order (5.43%), conjunction (1.09%), and the use of the capital letter and a missing determinant (1.09%).

It is not surprising that choosing the wrong tense is a common mistake. In "Learner English: A teacher's guide to interference and other problems", Swan & Smith (2001) gave an example in which a second language writer translated the sentence "I live in London since last year" the way it would be appropriate in French: « Je vis à Londres depuis l'an dernier ».

However, in English, when a situation began in the past and continues in the present, the present perfect is used (Swan & Smith. 2001). "I have lived in London since last year" is the appropriate form (Swan & Smith. 2001). Many participants in this study made mistakes linked to the present perfect tense.

5.7 Participant observation

To determine what gamers learn while playing online, two participants were observed (Appendix H). A letter of invitation was sent to all participants by email. However, some participants had already mentioned in the survey that they were not willing to be observed. Their decision was respected. The first two to answer the invitation were chosen, due to time constraints. If they had been available at the same time, another participant would have been requested, but this was not an issue. The main goal of the observation was to make links with the results. The verb tense that participants used in their texts might not be the same as the ones they use online. During the observation, there was no direct interaction with the gamer. The verb occurrences were noted on a paper. It is also important to mention that both participants chose the place of the observation. At first, the researcher expected that 20 minutes would be enough for each observation. However, it took approximately 50 minutes for each participant. This could be explained by the fact that there were not so many other gamers online while they were playing. To preserve the participants' anonymity, their names will not be revealed, Participants A1 and A3 were observed. Participant A3 used fewer verb

occurrences than participant A1, but the reason is that fewer gamers were online when he was observed.

5.8 Analysis of results

In the gamers' texts, the most common verb tenses in terms of occurrences were the present (83), the infinitive (64), and the present participle (33). The only other tense that implies at least 25 occurrences is the imperfect (25). These four tenses were used 205 times, for a total of 252 verb occurrences. This means that 81.35% of all occurrences implied one of these grammatical tenses. If only the present, the infinitive, and the imperfect are taken into account, it gives a percentage of 68.25% of all occurrences (172 out of 252). Thanks to the observed participants, it is possible to determine that the verb tenses that are the most frequently used while playing online are generally the same as in the texts. The only exception is the present participle, which is less common online. For participant A3, 45 occurrences out of 56 implied the present, the imperfect, or the infinitive (80.36%). For participant A1, it was 60 occurrences out of 79 (75.95%). There is a strong link between verb tenses that are used online and those used when writing a text.

Now, to determine if video games have an impact on the written mastery of verb tenses, gamers' results will be compared to non-gamers' results. If video games are helpful to master particular verb tenses, gamers should have a better written mastery of the tenses they use online than non-gamers. The three tenses that will be compared are the three that are the most frequently used online: the present, the infinitive, and the imperfect. As it was already mentioned, 172 occurrences out of 252 (68.25%) implied one of these tenses among the gamers' group. Among the non-gamers' group, it is 244 occurrences out of 299 (81.61%) that implied the present, the infinitive, or the imperfect. For gamers, the number of correct occurrences/percentages of correct occurrences for these three tenses was as follows: present (75 out of 83, 90.36%), infinitive (58 out of 64, 90.625%), and imperfect (20 out of 25.80%). For non-gamers, the number of correct occurrences/percentages of correct occurrences was as follows: present (86 out of 102, 84.31%), infinitive (77 out of 85, 90.59%), and imperfect (45 out of 57, 78.95%). For gamers, 153 out of 172 verb occurrences are used appropriately,

for an accuracy percentage of 88.95%. Among the non-gamer group, 208 verb occurrences out of 244 are appropriate, which means the percentage of correctness is 85.25%. The present is the only tense where the difference is more flagrant (6.315%).

The percentage of correct use of the infinitive and the imperfect is very similar for both groups. Although gamers' texts contained fewer words on average, the percentage of grammatical correctness is a bit higher. Although (repetitive transition word, find another one or delete it) the difference is not major, this could mean that using three main verb tenses (present. infinitive. imperfect) online could help gamers master them. As for the perfect and continuous tenses, they are rarely used online, as the tables above demonstrated (only seven occurrences out of 135). In gamers' texts, only 10 occurrences out of 22 (45.45%) are used appropriately when the tense is continuous or perfect. For non-gamers, the percentage of correctness when using these tenses is lower: 38.1% (8 out of 21). Continuous and perfect tenses are not frequent in texts, but gamers' percentage of correct use for these tenses is also a bit higher than that of non-gamers. In summary, three tenses are commonly used online (present, imperfect, and infinitive). Although there is no major difference between both groups, gamers' percentage of correctness concerning the three most common tenses is a bit higher than that of non-gamers.

5.9   Limitations of the study

In the beginning, participants were all supposed to be from Saguenay-Lac-St-Jean. One of the research goals was to include people who were raised in an almost monolingual French-speaking region. According to the ISQ, French is the first language of 98.7% of Saguenay-Lac-St-Jean's population. In such a region, people might rarely hear English in their daily life. This would have given significant results for the research since it might have been participants' only source of exposure to English. However, it turned out that finding people from Saguenay-Lac-St-Jean was too complicated. This explains why the regional criterion that had to be met by the participants was extended to other Quebec regions. The only place that was excluded from this research was the Montreal Island. English is spoken much more frequently there than it is in the rest of Quebec, which could skew the results. Although

participants from other Quebec regions may hear a little bit more of English than people in Saguenay-Lac-St-Jean do, the possibility to include them was methodologically acceptable. In this case, it made the process of recruitment much easier, and the ISQ (2020) states that 88.4% of Quebec's population outside of Montreal speak French as a mother tongue. Therefore, participants from other regions might not be exposed to English in their daily life.

Many gamers in this research were also exposed to other sources of input (television. reading. social networks) and it is difficult to determine the impact of these other sources. If a person plays video games in English but also spends several hours a week watching English television, both sources can have an impact. Despite these limitations, the current study adds new understanding regarding the mastery of L2 verb tenses and lexicon. It is one of the few second language studies to describe the effects of video games on the grammatical and lexical mastery of ESL among people in Quebec. Moreover, participants initially had to be in the age range 18-35. The minimal age did not change, and that could be explained by the fact that the ethical procedures are far more complicated when the participants are children or teenagers. The maximum age was increased to 40 years old. Although the ESA mentioned that 53% of all gamers are 18 to 35 years old, there is still 18% who are more than 35. For this research, two participants who were older than 35 were very interested in participating and that is why the age criterion was changed. Likewise, the original goal was to include two groups of eight participants (one with gamers and one with non-gamers).

Due to time constraints, the researcher decided that two groups of eight people were appropriate. The end of the winter session was coming and it would have been much more difficult to find people during summertime. Although there is no required number of participants for a project like this one, 16 people may still bring significant results. However, such a study cannot be generalized to other groups of people. Likewise, the original timeline was also modified. The participants were supposed to be found by November 2018. However, when I sent my survey on the UQAC website, it was difficult to recruit participants. By autumn 2018, I did not have participants to begin the analysis as it was expected. During winter 2019, I went to some university classes to describe the research and that is how I received more participants. When spring 2020 arrived, I had the majority of my participants.

The data analysis and the thesis writing that were supposed to be done during autumn 2018/winter 2019 began during summer 2019. The thesis writing continued during autumn 2019 and the corrections were to be completed in winter 2020. After reading my participants' texts, I realized that it could be relevant to determine if there was a significant difference between the number of spelling and lexical mistakes from both groups and to explain the different mistakes made by the participants. Since the mistakes were not only grammatical but also lexical and related to spelling, it would have been too general to only include the grammar part after reading all the texts. The second question that was added allowed a better understanding of these mistakes. Although the original research plan had been changed many times, the study is still relevant with these new criteria and this new timeline. Conducting research can be more challenging than it appears and obstacles have to be overcome.

Finally, it cannot be confirmed that video games directly contributed to learning among gamers. Some of the methodological choices for this study were later found to be less sound. This makes it difficult to certify the validity of the results. Participants` level of English was not controlled before comparing them. When participants have different levels of L2 mastery, it is difficult to compare verb tense mastery. This is especially true if intermediate variables have not been controlled. Moreover, those who participated in this study had a free writing task. It is more difficult to compare participants who wrote a free text since there are texts in which the participant could only use particular verb tenses. Likewise, participants in the non-gamer group did not have to answer the same number of questions. Their answers could not be compared to those of gamers. Then, all the tenses were compared. The use of video games could be linked to some tenses but this was not considered in this study. For these reasons, it is not possible to prove a cause-effect relationship between online gaming and written competency in English.

5.10 Further studies

The findings of the present study give rise to potential questions for further research. Future research could include a larger corpus to analyze in order to generalize the results. Moreover, this study was conducted in a non-pedagogical environment. In 2017, Pitarch reported that

teachers and publishers of didactic materials appear to be increasingly more interested in video games. In 2010, Peterson claimed that while playing, the communication context through which learners are exposed to the TL is authentic and valuable practice is provided in the four skills. It would be relevant to conduct this research (with a control group and an experimental group) in a pedagogical environment for teachers to determine if they should include video games in their teaching. Pitarch stated that video games increase learners' time of exposure in an entertaining way, so they can be a great support for language learning (2017). This means that many students could be more motivated to learn and it could bring new knowledge to English teaching in Quebec.

Likewise, to gain a better understanding of the mastery of English as an L2 among Quebecers, other linguistic features could be studied. According to Polio, researchers examine various features of L2 writers' texts, which can be divided into nine categories: overall quality. linguistic accuracy, lexical features, content. syntactic complexity, fluency, revision. coherence and discourse features and mechanics (2012). This study was about linguistic accuracy and lexical features. Although it was found that gamers made fewer lexical and grammatical mistakes than non-gamers, nothing is known about the other aspects of L2 writing mentioned by Polio. For example, to measure fluency (how native-like the writing sounds), a holistic scale can be used. Would the gamers be considered to be more fluent if they were evaluated with such a scale? Moreover, according to this research question, gamers had a better grammatical and lexical mastery, but it would be relevant to do more research. This would allow the researcher to know if video games also have a positive impact on the other aspects of L2 writing that Polio described. To sum up, although many variables can play a role in learning English, it appears that video games still remain a valuable source of input. Playing video games can potentially lead to successful second language learning under conducive circumstances.

Conclusion

The goal of this study was to determine if there was a link between video games and English verb tenses/lexical mastery among native French speakers. To reach this goal, the texts written by two groups of students were compared. One group was exposed to video games in English, while the other was not. However, the other sources of exposure, such as TV, reading, and social networks, were also considered. Participants also had to mention if they had already lived in a place where French was not the main language. It was found that those who played video games in English had better results.

First, the numbers of correct versus incorrect verb occurrences from both groups were compared. The percentage of correct use among gamers was higher: 85.66%. For non-gamers, 80.6% of the occurrences were appropriate. This means that the percentage of correct use in the gamers' group was 5.1% higher. Second, the number of spelling and lexical mistakes from both groups was compared. It was confirmed that gamers made fewer lexical and spelling mistakes. On average, the eight gamers made 11.88 mistakes in their text. For the non-gamers, the average in their text was 19.75 mistakes.

Then, the numbers of correct vs incorrect occurrences of each tense were compared for both groups. The present and the infinitive were much more frequent in the texts written by participants, regardless of the group. Participants had a good mastery of simple tenses, although perfect tenses were the less mastered. For the present and the past perfect, only eight occurrences out of 18 were correctly used for gamers and five out of 12 for non-gamers.

Similarly, the games played by the participants were evaluated to determine if there was a link between game genre and verb tenses mastery. No major difference was found. The only genre that stands out a little bit is science fiction. The percentage of verbal mistakes for those who play science fiction games is 12.34%. For those who do not, it is 17.94%. This genre seems to indicate a larger impact than the action genre.

The researcher also analyzed influence of other sources of exposure in both groups. Among gamers, those who also used English social networks had better results than those who did not. These participants made a total of nine verb tense mistakes, for an average of three mistakes each. The group average was 4.5, with television and reading not found to have a major influence. This might be a coincidence since many studies have shown that television can facilitate L2 learning. This is the case for Bahrani (2011), Danping (2012), and Almeida and Costa (2014).

Among non-gamers, only one participant used English social networks. She made a total of three verbal mistakes, which is much fewer than the average that is 7.25 mistakes. Five participants read in English and their scores were much better than those who did not. On average, participants who read in English every week made five mistakes. For those who do not read in English, it is 11 mistakes. Moreover, only two participants in this group watch television in English. On average, they made four mistakes each. The other participants made an average of 8.33 mistakes. Television also seems to have a major impact on L2 mastery in that group. Sources other than video games seemed to have had more impact on non-gamers.

Finally, two gamers were observed while playing. The goal of these observations was to determine if the tenses that are used online are the same that those used while writing. This could inform this research in that it could confirm or refute a link between written mastery and what gamers learn online. Generally, three tenses were commonly used online (present, imperfect, and infinitive). Although there was no major difference between both groups, gamer's percentage of correctness concerning the three most common tenses was a bit higher than that of non-gamers.

References

Allen, L., & Crossley, S., Snow, E., & McNamara, D. (2014). L2 writing practice: Game enjoyment as a key to engagement. *Language Learning & Technology*, *18*(2), 124-150. L2 Writing Practice: Game Enjoyment as a Key to Engagement (hawaii.edu)

Almeida, P., & Costa, P. (2014). Foreign language acquisition: the role of subtitling, *Procedia - Social and Behavioral Sciences,* 141, 1234 – 1238. (PDF) Foreign Language Acquisition: The Role of Subtitling (researchgate.net)

Armstrong, K., & Retterer, O. (2008). Blogging as L2 writing: A case study. *AACE Journal*, *16*(3), 233-251. (PDF) Blogging to Enhance Writing Skills: A Survey of Students' Perception and Attitude (researchgate.net)

Ayoun, D., & Salaberry, F. (2008). Acquisition of English tense-aspect morphology by advanced French instructed learners. *Language Learning*, *58*(3), 555-595. (PDF) Acquisition of English Tense-Aspect Morphology by Advanced French Instructed Learners (researchgate.net)

Bahrani, T. (2011). Speaking Fluency: Technology in EFL context or social interaction in ESL context? *Studies in Literature and Language*, *2*(2), 162-168. Speaking Fluency: Technology in EFL Context or Social Interaction in ESL Context? | Bahrani | Studies in Literature and Language (cscanada.net)

Bahrani, T., & Sim, T. (2011). Technology and language learning: exposure to TV and radio news and speaking proficiency. *Kritika Kultura*, *17*, 144-160. 1. Bahrani, T., & Tam, S, S. (2011). Technology and language learning: Exposure to TV and radio news and speaking proficiency. Kritika Kultura (17): 144-160 | Request PDF (researchgate.net)

Bahrani, T., and Sim, T. (2011). The role of audiovisual mass media news in language learning. *English Language Teaching*, *4*(2), 260-266. (PDF) The Role of Audiovisual Mass Media News in Language Learning (researchgate.net)

Bahrani, T., & Sim, T. (2012). Informal language learning setting: Technology or social interaction. *TOJET: The Turkish Online Journal of Educational Technology*, *11*(2), 142-149. (PDF) Informal language learning setting: Technology or social interaction? (researchgate.net)

Chapelle, C. (2007). Technology and second language acquisition. *Annual Review of Applied Linguistics*, 27, 98–114. Technology and Second Language Acquisition (iastate.edu)

Danping, W. (2012). Self-directed English language learning through watching English television drama in China. *Changing English: Studies in Culture and Education*, *19*(3), 339-348. (PDF) Self-directed English Language Learning Through Watching English Television Drama in China (researchgate.net)

Denzin, N. K, & Lincoln Y. S. (eds.) (2000). *Handbook of qualitative research.* London: Sage Publications.

Ellis, N. C. (2005). At the interface: Dynamic interactions of explicit and implicit language knowledge. *Studies in Second Language Acquisition*, *27*, 305–352. AT THE INTERFACE: DYNAMIC INTERACTIONS OF EXPLICIT AND IMPLICIT LANGUAGE KNOWLEDGE | Studies in Second Language Acquisition | Cambridge Core

Ellis, R. (2008). *The study of second language acquisition* (2nd ed.), Oxford: Oxford University Press.

Ferris, D. R., & Hedgcock, J.S. (2014). *Teaching L2 composition. purpose, process, and practice.* New York: Routledge.

Institut de la Statistique du Québec (ISQ). (2020). *Le Québec chiffres en main*. Le Québec chiffres en main – Édition 2020 (quebec.ca)

Krashen, S. (1981). *Principles and practice in second language acquisition*. London: Prentice-Hall International (UK) Ltd.

Krashen, S. (1985). *The input hypothesis: Issues and implications*. London: Longman.

Londe, Z. (2009). The effects of video media in English as a second language: Listening comprehension tests. *Issues in Applied Linguistics, 17*(1), 41-50. The Effects of Video Media in English as a Second Language Listening Comprehension Tests (escholarship.org)

Mackey, A. and Gass, S. (2016). *Second language research: methodology and design.* London: Routledge (Second edition).

MacLeod, F., & Larsson, P. (2011). *Exposure to English outside the classroom.* (report 270 hp). Malmo University, Moderna språk, Engelska. T9, Final Dissertation, Fraser MacLeod and Pia Larsson.pdf (mau.se)

Malone, S. (2012). Theories and research of second language acquisition. *Reading For Day 2, Topic 2LA Theories* (S. 1-11). Bangkok SIL International. (DOC) A REVIEW of STUDIES ON LANGUAGE ACQUISITION THEORIES | Rıdvan Demirhan - Academia.edu

Myles, J. (2002). Second language writing and research: The writing process and error analysis in student texts. *TESL-EJ, 6*(2), 1-28. [Second Language Writing and Research: The Writing Process and Error Analysis in Student Texts (tesl-ej.org)](tesl-ej.org)

Peterson, M. (2010): Massively multiplayer online role-playing games as arenas for second language learning. *Computer Assisted Language Learning*, *23*(5), 429-439. [(PDF) Massively Multiplayer online role-playing games (MMORPGs) as arenas for language learning (researchgate.net)](researchgate.net)

Pitarch, R. (2017). Language for specific purposes graphic-adventure videogames: supporting content and language learning. *Obra Digital*, *13*, 169-183. [Dialnet-EnsenanzaDeLenguaParaFinesEspecificosATravesDeAven-6122251 (1).pdf](Dialnet)

Polio, C. (2000). *On second language writing.* New York: Routledge.

Qian, J. (2009). Host communication competence and mass media use among a sample of Chinese ESL students (doctoral thesis). Queen's University, Kingston, Ontario, Canada,
1-294. [Host Communication Competence and Mass Media Use among a Sample of Chinese ESL Students (queensu.ca)](queensu.ca)

Saville-Troike, M., & Barto, K. (2018). *Introducing second language acquisition.* Cambridge University Press.

Silva, T. (1993). Toward an understanding of the distinct nature of L2 writing: The ESL research and its implication. *TESOL Quarterly*, *27*(4), 657-677. [Toward an Understanding of the Distinct Nature of L2 Writing: The ESL Research and Its Implications on JSTOR](JSTOR)

Suthiwartnarueput, T., & Wasanasomsithi, P. (2012). Effects of using Facebook as a medium for discussions of English grammar and writing of low-intermediate EFL students. *Electronic Journal of Foreign Language Teaching*, *9*(2), 194–214. [Effects of using Facebook as a medium for discussions of English grammar and writing of low-intermediate EFL students | Request PDF (researchgate.net)](researchgate.net)

Swan, M., & Smith, B. (2001). *Learner English: A teacher's guide to interference and other problems.* (2nd Edition). Cambridge University Press.

Appendix A - Survey – French and English versions

Survey - French version

Sexe : _____   Ville : _____   Âge : _____

1) Jouez-vous à des jeux vidéo en anglais ?
   a) Oui
   b) Non

   Si la réponse est non, vous n'avez pas besoin de répondre aux autres questions.

2) Quelles sortes de jeux utilisez-vous ?
   - ☐ Action
   - ☐ Stratégique
   - ☐ Science-fiction
   - ☐ Sport
   - ☐ Autre

3) Nommez les jeux en question.

   _____

4) Utilisez-vous les fonctions interactives des jeux?
   a) Oui
   b) Non

5) Les jeux auxquels vous jouez impliquent-ils de communiquer par écrit ?
   a) Oui
   b) Non

6) Combien d'heures par semaine jouez-vous?

   _____

7) Combien d'heures par semaine passez-vous à interagir?

   _____

8) Quel (s) temps de verbe est/sont le/les plus fréquemment utilisé (s) ?

_____

9) Depuis combien d'années jouez-vous à ces jeux ?

_____

10) Lors d'une semaine normale, combien d'heures par jour consacrez-vous à ces jeux ?

_____

11) Croyez-vous que ces jeux ont un impact sur la qualité de votre anglais écrit ?
   a) Définitivement
   b) Un peu
   c) Pas du tout

12) Si oui, sur quels aspects?

_____

13) Croyez-vous que les jeux vidéo sont l'une des bonnes sources d'exposition à l'anglais dans une société comme celle du Saguenay ou de la plupart des régions du Québec ?
   a) Oui
   b) Non

14) Si oui, pourquoi?

_____

15) Conseillez-vous à ceux qui ne sont pas du tout exposés à l'anglais de jouer à des jeux vidéo dans le but d'en améliorer leur maîtrise de l'anglais?
   a) Oui
   b) Non

16) Si oui, pourquoi?

_____

17) Le français est-il votre langue maternelle ?
   a) Oui
   b) Non

18) Avez-vous déjà vécu pour plus d'une semaine dans un endroit où le français n'était pas la langue d'usage?
   a) Oui
   b) Non

19) Si oui, précisez.

_____

20) Utilisez-vous les réseaux sociaux en anglais ?
    a) Oui
    b) Non

21) Si oui, combien d'heures par semaine ?

    _____

22) Lisez-vous en anglais ?
    a) Oui
    b) Non

23) Si oui, combien d'heures par semaine ?

    _____

24) Regardez-vous la télévision en anglais ?
    a) Oui
    b) Non

25) Si oui, combien d'heures par semaine ?

    _____

26) Dans quel programme étudiez-vous ?

_____

27) Quel est votre sexe ?
     a) Masculin
     b) Féminin

28) Quand êtes-vous disponibles ?

_____

29) Acceptez-vous d'être observé en jouant à des jeux vidéo?
    a) Oui
    b) Non

30) Quelle est votre adresse e-mail?

    _____

Survey - English version

Gender: _____   City: _____   Age: _____

1) Do you play video games in English?
   a) Yes
   b) No
   If the answer is no, you do not need to answer the other questions.

2) What kind (s) of games do you play?
   a)   Action
   b)   Strategy
   c)   Science-fiction
   d)   Sport
   e)   Other (please specify)

3) Name these games.

   _____

4) Do you use the interactive functions of the game or not?
   a) Yes
   b) No

5) Do the games you play involve written communication?
   a) Yes
   b) No

6) How many hours a week do you play?

   _____

7) How many hours a week are you interacting?

   _____

8) What are the most frequently used verb tenses?

   _____

9) How many years have you been playing these games?

   _____

10) In a typical week, how many hours a day do you play these games?

_____

11) In a typical week, how many hours a day do you play these games?
  a) Definitely
  b) A little bit
  c) Not at all

12) If yes, on which aspects?

_____

13) Do you believe that video games are a good source of exposure to English in Saguenay-Lac-St-Jean?
  a) Yes
  b) No

14) If yes, why?

_____

15) Would you recommend that people who are not exposed to English play video games to improve their mastery of this language?
  a) Yes
  b) No

16) If yes, why?

_____

17) Is French your first language?
  a) Yes
  b) No

18) Have you ever lived for more than one week in a place where French was not the common language?
  a) Yes
  b) No

19) If yes, where?

_____

20) Do you use social networks in English?
  a) Yes
  b) No

21) If yes, how many hours a week?

    _____

22) Do you read in English?
    a) Yes
    b) No

23) If yes, how many hours a week?

    _____

24) Do you watch TV in English?
    a) Yes
    b) No

25) If yes, how many hours a week?

    _____

26) In which program are you studying?

_____

27) What is your gender?
    a) Male
    b) Female

28) When are you available to write the text?

_____

29) Do you agree to be observed while playing video games?
    a) Yes
    b) No

30) What is your e-mail address?

    _____

INSTRUCTIONS GIVEN TO STUDENTS FOR THEIR TEXTS

The instructions were simple. Students were told to write a text of 200 to 250 words (approximately) in English. in which they should try to use as many verb tenses as possible. The topic was open-ended for both groups (gamers and non-gamers), although gamers were suggested to write about how they think that video games can lead to learning ESL. Nearly all the gamers chose that suggested topic. The non-gamers were mainly asked to write about what they do in life. what they like. or to which extent they are exposed to English. Most of them wrote about these topics. There were no time constraints; students were allowed to take as much time as they needed. They were told that one hour should be enough to complete the text, and most finished in 30 to 40 minutes. Dictionaries and cellphones or any reference tool were not allowed while writing the text. The researcher was there to collect the texts and to make sure that students did not use their cellphones to conjugate verbs.

Appendix B - Letter of invitation to students in French (Survey)

Janvier 2019

Maxime Gagné
555. Boulevard de l'Université Est
Chicoutimi. Québec

Re : <u>L'impact des jeux vidéo sur la maîtrise des temps verbaux en anglais langue seconde</u>

Chers étudiants,

En tant qu'étudiant à la maîtrise en linguistique à l'UQAC, je fais une recherche dont le but est de déterminer l'impact des jeux vidéo sur la maîtrise des temps verbaux en anglais langue seconde. Vous devez être âgés de 18 à 40 ans, étudiez à l'UQAC (dans un programme qui n'est pas relié à l'anglais), être francophones de langue maternelle et originaires de la province de Québec. (La seule région exclue est l'île de Montréal étant donné que l'anglais y est beaucoup plus présent qu'ailleurs au Québec). Je vous invite à y participer.

Je vous invite à répondre à un sondage (http://limesurvey.uqac.ca/index.php/344935/lang-fr) créé sur Lime Survey dont le lien est accessible sur le site de l'UQAC. Cela ne devrait prendre qu'une dizaine de minutes à répondre. Il y aura deux groupes à l'étude : un qui impliquera ceux parmi vous qui jouent à des jeux vidéo et un autre impliquant ceux qui ne jouent pas. Dix d'entre vous seront choisis pour chaque groupe parmi ceux ayant répondu au sondage. Cela est nécessaire pour déterminer l'impact des jeux vidéo sur la maîtrise des temps verbaux en anglais langue seconde. De plus, deux d'entre vous seront choisis pour être observés en jouant dans le but de déterminer ce que vous apprenez en utilisant les jeux vidéo.

Une fois que les participants seront choisis, vous serez recontactés par e-mail pour écrire un texte. Cela se fera dans un local à l'UQAC, en fonction de vos disponibilités. Le temps nécessaire pour écrire le texte est estimé à environ une heure, bien que cela puisse varier selon les personnes. Le sujet du texte sera libre, mais les dictionnaires et les cellulaires seront interdits. Cela influencerait les résultats. Vos textes seront ensuite amassés et analysés.

Dans le but de conserver votre anonymat, aucun nom ne sera divulgué et aucun indice permettant de vous identifier ne sera donné. Toutes les copies version papier seront conservées dans un classeur fermé, situé dans le bureau de la directrice de recherche. Elles

seront détruites après sept ans. Votre participation est volontaire et vous êtes donc libres de refuser de répondre au sondage. Vous avez aussi le droit de vous retirer à n'importe quel moment.

Si vous avez des questions, n'hésitez pas à me contacter à l'adresse maxime.gagne4@uqac.ca ou encore ma directrice de recherche. Natalie Rublik à l'adresse Natalie_Rublik@uqac.ca.

Bien à vous!

Maxime Gagné (étudiant à la maîtrise en linguistique)

Appendix C - Letter of invitation to students in French (Observation)

Septembre 2019

Maxime Gagné
1075, rue Laporte
Alma. Québec

Re : <u>L'impact des jeux vidéo sur la maîtrise des temps verbaux en anglais langue seconde</u>

Chers étudiants,

En tant qu'étudiant à la maîtrise en linguistique à l'UQAC, j'ai fait une recherche dont le but était de déterminer l'impact des jeux vidéo sur la maîtrise des temps verbaux en anglais langue seconde. Seize personnes y ont participé, se répartissant en deux groupes : un qui impliquait des gens qui jouaient à des jeux vidéo et un autre qui impliquait des gens qui ne jouaient pas.

Dans le but de déterminer ce que vous apprenez en utilisant les jeux vidéo et d'en faire des liens avec les résultats, je vous invite à être observés en jouant à des jeux en ligne en anglais. Deux personnes sont recherchées. Vous devez bien sûr avoir participé à l'étude précédemment (écriture du texte) pour être observés. Il est à noter que ceux qui ont mentionné qu'ils ne voudraient pas être observés verront leur décision respectée. L'observation sera basée sur l'enregistrement et la prise de notes et n'impliquera pas d'interaction avec l'observateur. Les deux premières personnes qui veulent participer seront choisies. Toutefois, si ces deux personnes exactement au même moment et qu'il n'est pas possible de les observer en même temps, la troisième personne à répondre sera retenue.

Une fois que les participants seront choisis, vous serez recontactés par e-mail pour donner vos disponibilités. L'observation pourra se faire à l'endroit où vous le voulez. Il n'y pas de durée précise visée, mais une vingtaine de minutes devraient suffire.

Dans le but de conserver votre anonymat, aucun nom ne sera divulgué et aucun indice permettant de vous identifier ne sera donné. Votre participation est volontaire et vous êtes donc libres de refuser d'être observés. Vous avez aussi le droit de vous retirer à n'importe quel moment.

Si vous avez des questions, n'hésitez pas à me contacter à l'adresse <u>maxime.gagne4@uqac.ca</u> ou encore ma directrice de recherche. Natalie Rublik à l'adresse <u>Natalie_Rublik@uqac.ca</u>.

Bien à vous!

Maxime Gagné (étudiant à la maîtrise en linguistique)

Appendix D - Gamers' group

Participant[10] A1: He is 23 years old and is from the Laurentides. The games he plays include action, strategy, and science fiction games. His favorite ones are Dota 2, The Elder Scrolls V, Skyrim Planetside 2, The Witcher 3, and Wild Hunt Fire Emblem. He interacts and uses written communication while playing. He spends 20 hours a week playing video games. Ten out of these 2011 hours are used to interact. According to this participant, the most frequently used verb tenses are the past, the present, and the future. He has been playing video games for seven years and spends between zero and five hours a day playing. He believes that video games have an impact on his written English. He sees the benefits in "all aspects. He learns vocabulary, syntax, grammar, and especially informal English that is not learned in class". This participant believes that video games are a good source of exposure to English in Saguenay-Lac-St-Jean. The reason why he thinks so is as follows: "Since there are few English speakers in the region, video games are one of the only sources of unavoidable exposure to English (since most games are only available in English, unlike series and movies)". Participant A1 recommends that people who are not exposed to English play video games to improve their mastery of this language. As he stated: "In a game, not only do you have to understand the story, but also different concepts of the game that are explained in English. It is not always possible to confirm if we understood a story pretty well, but if we instantaneously test the concepts that are explained to us in English, we also test our understanding". This participant has never lived more than one week in a place where French was not the common language. He stated that he uses social networks in English for 4 hours a week. Moreover, he reads in English 15 hours a week. However, he does not watch television in English. He is studying video game conception and would accept to be observed while playing or to be interviewed about his learning.

Participant A2: He is 24 years old and is from Saguenay-Lac-St-Jean. He likes to play strategic, science fiction, and action games. League of Legends, Apex Legends, Path of Exile, Rocket League, PUBG, and Rust are among the games he plays. He interacts and communicates in a written form while playing. On average, this participant spends 40 hours a week playing, and 15 of them imply interaction. According to him, the verbs that are commonly used are the present, the imperfect, and the progressive tenses (ending in –"ing). He has been playing games for 15 years. In a typical week, participant A2 spends four to six hours a day playing video games. He thinks that video games have a positive impact on his written English. He mentioned that these games can "improve the vocabulary, and lead to a better knowledge of the commonly used expressions. They can also help to formulate more adequate sentences in relation to verbal tenses". According to this participant, video games are a good source of exposure to English in Saguenay-Lac-St-Jean. He mentioned that the "Internet community is mainly English-speaking while the region of Saguenay-Lac-St-Jean is mainly French-speaking, which makes it easy to be exposed to English by playing games". Participant A2 has mixed feelings about recommending that people play video games to be exposed to English. He believes that "it depends on what people want to do with the English

---

[10] For ethical reasons, the participants' names are l not mentioned. Participants from the gamers` group are named using the letter A followed by a number. Those from the non-gamers` group are named with the letter B followed by a number.

language. There is a vocabulary that is linked to video games, and it might be less practical to use in day-to-day life". He has lived for more than one week in a place where French was not the main language. He did the Explore program and spent five weeks in New Brunswick. This participant never uses social networks in English. However, he reads in English 10 hours a week and spends the same number of hours watching television in English. He is doing a master's degree in social work and would accept to be interviewed about his learning.

Participant A3: He is 23 years old and is from Bas-St-Laurent. Strategic, action, and science fiction are among the types of games he plays. His favorite titles include La Série Fallout, La Série Witcher, Apex Legends, and Rocket League. He interacts and communicates in a written form while playing. The time he spends playing is 15 to 20 hours a week. His interaction time is two hours a week. This participant mentions that the most used verb tenses are the present, the past, and the future. He has been playing video games for 10 years. In a typical week, he spends one to five hours a day playing games. He thinks that these games have an impact on his written English, especially "on the understanding of particular English expressions, and also on the pronunciation of the words". Just like the first two participants, participant A3 believes that video games are a useful resource to be exposed to English in Saguenay-Lac-St-Jean. He said that "not only they are entertaining, but they also help to improve another language without really making an effort, by simply playing and communicating in English with other online players". This participant does not recommend that people who are not exposed to English play video games to improve their mastery of this language, because, according to him, "They are not a reliable and efficient way, but good support to practice and improve one's knowledge". Participant A3 has never lived for more than one week in a place where French was not the main language spoken. He spends on average four to five hours a week on English social networks, especially Youtube. He reads in English for two to three hours every week. He does not watch television in English, although he watches videos on Youtube and series on Netflix, for an average time of six to seven hours a week. He is studying video game conception and would be willing either to be observed or interviewed.

Participant A4: He is 23 years old and is from Gaspésie-Îles-de-la-Madeleine. Like the first participants, he also plays action, strategic, and science fiction games. Final Fantasy, Total War, and Company of Heroes are some of the games he prefers. He both interacts and communicates by writing while playing. He typically spends 10 weekly hours playing and one hour is dedicated to interaction. Participant A4 mentions that the present is the most frequently used verb tense in video games. He has been a gamer for 12 years and normally spends one to two hours a day playing. This participant believes that the games he plays help him with his written English, stating that "they help him to recognize common words more easily". He also believes that video games are a useful source of exposition to English in the French-speaking region of Saguenay-Lac-St-Jean. His point of view is that "Video games can require a lot of readings, It is a way to read in English that could be more motivating for students than required readings". Participant A4 thinks that people should play video games if they want to improve their English mastery. He considers video games to be "a playful activity, and if students dislike reading, video games can be another way to familiarize them with the English language". He has never lived in a non-French-speaking place for more than one week. This participant never uses social networks in English. However, he sometimes reads in this language, but the weekly time depends on the book he is reading at a particular

moment. On average, he spends 20 hours watching television in English every week, He is studying video game conception and would not accept to be interviewed about his learning, or observed while playing.

Participant A5: He is 21 years old and is from Saguenay-Lac-St-Jean. He plays strategic and action games. His favorite ones are League of Legends, Life is Strange, and A Way Out. He interacts while playing and also communicates in a written form. Participant A5 spends 14 hours a week playing video games. One of these hours is dedicated to interaction. According to this participant, the present tense is the most frequently used while playing. He has been a gamer for 15 years and spends two hours a day playing video games. Participant A5 believes that video games have some impact on his written English. He stated that "by means of hearing voices or reading texts, we learn. The only problem is that I don't spend so much time playing in English". He believes that video games are a relevant source of exposure to English in Saguenay-Lac-St-Jean. He argued that "a person can undoubtedly learn English because of video games. It's an online facility that can allow people to talk to other gamers, or to simply play games in English". This participant thinks that people should play video games to improve their English skills, stating that "the best way to learn is to listen and read". He has never lived more than a week in a place where French was not the main language. He does not use social networks in English. However, this participant spends one hour a week reading in English, and also one weekly hour watching television in this language. He is studying engineering. He would accept to be interviewed about his learning or observed while playing video games.

Participant A6: He is 27 years old and is from the Laurentides. Action and strategic games are the genres he plays. The House in Fata Morgana, Danganronpa V2, Fallout 4, and The Elder Scrolls V are among his favorite games. While playing, he does not use interaction and does not communicate by writing. On average, he spends 15 weekly hours playing. Like participant A5, the question about the amount of time of interaction did not apply in his case. He has been playing for about 24 years and spends about three daily hours playing games. He thinks that video games can help him a little bit with his written English skills. His justification is that "the fact to constantly reinforce the learning is an important source to consolidate it". Participant A6 does not believe that video games are a good source to be exposed to English in a society such as Saguenay-Lac-St-Jean, and would not recommend that people play these games to improve their English skills. He has spent nine months in Japan. This participant spends as many as 50 hours a week on English social networks. He spends 30 weekly hours reading in English, and the same amount of time watching English television each week. He is studying video game conception, and would accept to be observed while playing or interviewed.

Participant A7: He is 40 years old and is from Saguenay-Lac-St-Jean. He likes action and strategic games. The ones he plays the most are Final Fantasy, Black Ops, and Diablo. While playing, he both interacts and communicates in a written form. On average, participant A7 spends five hours a week playing games, including two hours of interaction. According to him, the present is the most used tense in video games. He has been playing for at least 10 years and spends about one weekly hour playing in a typical week. He thinks that video games have some impact on the quality of his written English. However, he did not state which particular aspects. He considers video games to be a good source of English exposure

in Saguenay-Lac-St-Jean, and recommends that people play video games to get a better knowledge of the English language. He justifies these two facts by stating that "if you want to understand the story of the game a little bit, or know what to do at the next level, it forces you to learn English". He has lived in a place where French is not the main language. He spent three weeks in Vancouver. Participant A7 does not use social networks in English. He spends one to two hours a week reading in this language and watches English television for one hour each week. He is studying engineering. He is not willing to be interviewed or observed while playing.

Participant A8: He is 23 years old and is from Montérégie. He plays strategic and action games. Minecraft, Dofus, Fortnite, Portal 2, and Rocket League are those he prefers. This participant interacts in his games, and also uses written communication. He spends 30 hours per week playing, and six of these hours imply interaction. According to him, the present is the most commonly used verb tense while playing video games. He has been playing for about 13 years and spends six hours a day playing games in a typical week. Participant A8 believes that video games have a certain impact on his written English. He mentioned that it influences "the writing itself, because it forces people to communicate in English". This participant argues that video games are useful to be exposed to the English language in the region of Saguenay-Lac-St-Jean, stating that "without daily exposure to English, such as in Montreal, video games make people confronted with the English language". He does not think that people should play video games to improve their English skills. This participant has lived in a non-French-speaking place for more than one week (three months in Western Canada and six months in Europe). He does not use English social networks and never reads in English. However, he watches television in this language for six hours per week. He is studying social work and would accept to be observed or interviewed about the things he learns.

Appendix E - Non-gamers' group[11]

Participant B9: She is 26 years old and is from Bas-St-Laurent. She thinks that video games are a good way to be exposed to English in a place like Saguenay-Lac-St-Jean. She would also recommend that people play these games to improve their English proficiency. Her point of view is similar to most people in the gamers 'group. She already spent two weeks in Vancouver. She does not use social networks in English. She reads in this language about 15 minutes a week and spends 15 weekly hours watching television in English. She is doing a master's degree in social work.

Participant B10: She is 28 years old and is from Saguenay-Lac-St-Jean. She has never lived for more than one week in a place where French was not the common language. She does not use social networks in English, does not read in the language, and does not watch English television. She is studying social work.

Participant B11: She is 23 years old and is from the Côte-Nord. She already spent five weeks in Ottawa. She never uses English social networks, does not read in English, and does not watch television in this language. She is studying Linguistics/French Language.

Participant B12: She is 37 years old and is from Saguenay-Lac-St-Jean. Although she is not a player, she would recommend that people play video games to improve their English skills. She already spent five weeks in Winnipeg. She does not use social networks in English and does not watch English television. She reads in the language for about one hour each week. She is doing a master's degree in Linguistics.

Participant B13: She is 25 years old and is from Saguenay-Lac-St-Jean. She has never spent more than one week in a non-French-speaking place. She spends two weekly hours using English social networks, and she reads in this language for about eight hours a week. She does not watch television in English. She is doing a master's degree in Linguistics.

Participant B14: She is 22 years old and is from Saguenay-Lac-St-Jean. According to her, video games are a relevant source of exposition to English in the French-speaking region of Saguenay-Lac-St-Jean, but she would not recommend video games as a way to improve one's English proficiency. She already spent six weeks in Ottawa. She does not use social networks in English and does not watch TV in English. She spends one hour a week reading in this language. She is studying in social work.

Participant B15: She is 23 years old and is from Saguenay-Lac-St-Jean. She already spent seven months in South America and three months in Alberta. She does not use English social networks, does not read in the language, and does not watch English television. She is studying psychology.

---

[11] Questions 2 to 16, as well as the 29th, did not have to be answered by the non-gamers. However, some of them answered the questions 13 and 15. Participant B16, who plays video games in French, but is not considered to be a gamer, answered most of the questions from 2 to 16. Non-gamers `answers are considered to establish a comparison with what was thought by the other group`s participants.

Participant B16: She is 26 years old and is from Bas-St-Laurent. She thinks that video games are a good way to be exposed to English in Saguenay-Lac-St-Jean. She mentioned that "people's daily life does not expose them to the English language, while games/movies/series do". Participant B16 does recommend to people to play video games to improve their English proficiency. According to her, these games "are a good tool to learn while having fun, in a context where the vocabulary is restricted, and where the context helps to understand". She has never lived for more than one week in a place where the French language was uncommon. She does not use social networks in English. However, she spends five weekly hours reading in English. Although she does not watch television itself, she spends five hours a week watching movies and series on Netflix. Participant A5 is studying Linguistics/French Language.

Appendix F - Texts written by students - gamers' group[12]

Participant A1's text: Just as watching any media in English, the consumption of video games in English is better used as a complement to formal training. I have found that media presented to me in a foreign language helped in associating sounds and meaning(s) especially when accompanied by subtitles in the same foreign language. The advantage of using both auditive (auditory) and visual stimulus (stimuli) in the target language is in the ease at which sounds can be matched with written words. Using media in which the student can get invested can help sustain interest in the learning process.

Just as many addictive activities (such as gambling, physical activities, etc.), certain types of games are more prone to causing addictive behavior. The use of random rewards, daily incentives (in the form of in-game currency, for example), and limited play time unless more is obtained through paiment (payment)using one's hard-earned money can increase the feeling of engagement in (among) players. The sunk-cost fallacy, to which we can all fall prey to (unwillingly), can cause those who have put a lot of themselves in a game to continue the addictive behavior until it becomes unsustainable. Most of the problems with addictive games comes (come) from the fact that they were made with that intent and the fact that there is a lack of a regulatory body over them. Though we do not want all games to be regulated by the government, it becomes increasingly clear that measures need to be taken against these predatory games:

Verb correct occurrences: 34   Incorrect occurrences: 1   Lexical/spelling mistakes: 5
Total number of words: 245

Participant A2's text: So as I can see from my discussion with my interviewer, I enter in (am a part of) the gamer (gamers') category. I'd say gaming (has) helped me a lot with my progression in learning English (English). You learn new words and new meanings depending on the situation and the contents (content). For example, if you play a sports game or a shooter game you will learn vocabulary and phrasing(s) specific to those types of games. Also I've learn (learned) using vocal chat as a way to communicate with my friends and teammates while playing. This makes (a) good practice for understanding new accents and expressions that are not used every where (everywhere) in the world, I think I have learned a lot by « meeting » new people over the internet (Internet) while playing video games. Sure I still have a long way to go but I think I (have) improved a lot since I started playing online games. It is not every day that we speak English, especially here in Saguenay. So using online games as a way to practice is great. Aside from speaking more often, I (have) got to read more in english (English) since most of the (game related stuff) stuff game related is writen (written) in english (English). When you invest yourself into it, you become a part of this gigantic community that are the gamers, I don't really know how I could improve, aside from travelling, if I wasn't (weren't) playing video games and entering (getting) in contact with

---

[12] All the verbs are underlined. Those that are in red are seen as mistakes. Spelling and lexical mistakes are also underlined and in blue.

all the content related to it on the internet (Internet).

Verb correct occurrences: 33   Incorrect occurrences: 8   Lexical/spelling mistakes: 11
Total number of words: 241

Participant A3's text: Video games to learn English: Playing video games has a lot of impact on people. One of them is actually learning a second language. I do believe that playing in english (English) can definatly (definitely) bring some knowledge that traditional teaching cannot.

First of (off), playing games in english (English) helps (in) associating english (English) expressions to a situation. An exemple (example) of that would be associating the expression «fire in the hole» to a grenade toss. Some might say that cinema can do the same, but since a video game is interactive, and using (use) more parts of the brain, learning become (becomes) even more effective because you are not only watching, but living in that moment.

Secondly, finding a comunauty (community) in english (English) is easier because the majority of people online uses (use) english (English) in communication. In short, if you want to communicate in an online game, you need to use english (English). This pushes people to learn and understand what people say or write and if they want to get understood they have no choice but to learn.

Playing video games definatly (definitely) help (helps) in som (some) way but I don't think that it alone can really be enough to learn a second language in full.

Verb correct occurrences: 38   Incorrect occurrences: 4   Lexical/spelling mistakes: 13
Total number of words: 195

Participant A4's text: I think video games can be a way for people to familliarize (familiarize) with English because reading books the (as) usual to train reading skills can be a chore for certain person (people). So with video games, they might feel more engage (engaged) and as a result have more fun and they might want to continue it more than what is required of them which can increase the efficiency of the exercise. But it is important to remember (to) add exercises aiming at increasing the retencion (retention) of the langage (language) following the gaming session: eg, associating words from the first langage (language) and english (English) word (words) that were found in the game. It might seems (seem) strange at first but often all video games are sometimes an interactive (interactive) movie and some games include lot (lots) of text so if movies, novels, and books help learning English why not video games?

Verb correct occurrences: 21   Incorrect occurrences: 4   Lexical/spelling mistakes: 9
Total number of words: 140

Participant A5's text: Nowadays, mechanical designers use CAD software to help them during the drawing process and Catia is one of the most imposing. Catia is a mechanical software which is used mostly for (the) 3D modelling and technical drawing. The creation of Catia started one decade before its release date in 1977. (At) first, it is important to know that

this program is cross-disciplinary. It uses all aspects of the modelling and the engineering aspects at the same time. Furthermore, the software is more effective than hand drawing because every sketching is made with more accuracy and its draw (is drawn) faster.

In all cases, we can say that Catia has had a major impact on the technological advance in view of the fact that today every designer works on Cad (CAD) software. By dint of its accuracy and reliability, the designers do faster (;) all of them draw (,) therefore they save time. Moreover, the software is safer than manual work in reason (because of the fact) that you can own a way more than a single copy. With the arrival of the cyber-physical manipulation, it improves a lot of branches of mechanical design like the development of new dies and the programing of some CNC machinery, (199 words).

<u>Verb correct occurrences:</u> 21   <u>Incorrect occurrences:</u> 1   <u>Lexical/spelling mistakes:</u> 6
Total number of words: 199

Participant A6's text: Learning English from video games. As a child who grew up in a French-speaking family, I did not have many opportunities to learn English. Of course, I did have English classes at school, but their quality was barely sufficient enough to learn the basics. Where I (have) really learned how to speak and write in English was through video games, Indeed, not only do video games contain a rich vocabulary that the player needs to understand in order to progress in the game, they also feature characters that (who) speak many varieties of English that are closer to the English spoken by most anglophones (Anglophones), rather than the (English) textbook English from school. As I grew up, I also started playing games online. Online games, even though they taught me plenty of naughty words, have also forced me to communicate with English speakers from all over the world. This connection with real people has not only perfected my English skills, but (has) also exposed me to many other languages, cultures, and accents from all over the world, I am today very happy that I spent so many hours on video games growing up, as they not only (have) taught me English but also (have) opened up (my) perspective on the world.

<u>Verb correct occurrences:</u> 25   <u>Incorrect occurrences:</u> 4   <u>Lexical/spelling mistakes:</u> 4
Total number of words: 203

Participant A7's text: English and video games. Since (Over the past) forty years ago, video games takes (have taken) (a) considerable magnitude. In the beginning, it was only simple games. For instance, take the game Defender on (the) Atari game console, where the goal is (was) to destroy the (plenty of enemies) enemy, plenty of, before (they) touch (touched) the ground. There was not lot (lots) of text, except there on the opening screen and in the option (options) menu, In that case, it was difficult for a french (French) speaker to learn new words in English. With the advancement of electronics, they were capable (have been able to) to develop the game interface, the dynamics between the characters and the dialogue between them also. For me, when I was twelve or thirteen years old. The Nintendo Entertainment System (NES) went (came) on the market. There was a game on it I played a lots (lot) of. The game was named Final Fantasy, the first in a long serie of games in the style role playing game (style) (RPG). I learnt (have learned) plenty of new english (English) word (words) because whe (when) I started to play. I didn't knew (know) a single english (English) word. It was necessary for me to use an english/french (English/French) dictionary to look for the

definition (s) of new words to understand the meaning (s) so that I can (could) continue on the journey. In that case, I was able to learn new english word (English words).

Verb correct occurrences: 20   Incorrect occurrences: 8   Lexical/spelling mistakes: 20
Total number of words: 213

Participant A8's text: For me the Video game (video games) are a good way to practice english (English), by the exposition of (through) dialogue in story mode, (It)   Depends (depends) of (on) the kind of VideoGame (video games) but, if it's an online one you would need to practique (practice) your english (English) if you want to communicate and grow in the game. After that, some game (games) have a big community so by the time you're (spending time) playing you will learn english (English), So, for me Video game (video games) offer two kind (kinds) of Help (help). The first one is when you play alone in story mode and start to learn some words by the exposition with (to) english (English) and the context of the mission they are asking, (like the exposition of (to) english (English) by (through) netflix (Netflix) if you don't understand some word (words), the contexte (context), the actions you see will help you). The secondpart (second part) where videogame (video games) can help you learn how to wrote (write) english (English) it's (is) by online gamming (gaming) like I already said you have to understand how to read and wrote (write) it if you want help from other (others) in the games.

Verb correct occurrences: 23   Incorrect occurrences: 6   Lexical/spelling mistakes: 27
Total number of words: 169

Appendix G - Texts written by students: non-Gamers' group

Participant B9's text: Today, we have the opportunity to watch TV from differents (different) countries and differents (different) cultures. With application (applications) like Netflix, we can watch everything but in differents (different) language (languages). The principal language on Netflix is English. At first, I wasn't able to watch tv (TV) show (shows) in a other (another) language. I tried to put subtitle (subtitles) in French when the tv (TV) show was in english (English) and it's help (helped). After I tried subtitle (subtitles) in english (English) and I was able to understand. Now, I'm able to watch tv (TV) in English without subtitle (subtitles), I think that watching tv (TV) in english (English) is a good way to familiarize ourself (ourselves) with the language. Some words come back a lot in a movie or a show so we can know them better at the end. An other (Another) important point it's (is) the accent of the actor. Sometime (Sometimes) it's help (helps) to understand better or not. For exemple (example), the british (British) accent is more difficult to understand for me. Finally, I think it could help to write and speak better in english (English). I've never practice (practiced) my english (English) since high school, but since I watch (have been watching) Netflix. I'm able to saw (see) a difference in my english's (English's) capacities. After all, I'm better in English (English) and I've seen it in my studies. In second grade (As a graduate student) master (master's degree). I need to read articles in english (English) and since I'm better it's more easy (easier) for me to reconize (recognize) worlds (words) that I've seen in my tv (TV) shows, So in my real life I see the impact.

<u>Verb correct occurrences:</u> 36   <u>Incorrect occurrences:</u> 7   <u>Lexical/spelling mistakes:</u> 32
Total number of words: 241

Participant B10's text: Stay (Living) in a city who (where) we are near the wood it's (is) amazing! You will know why in this little (short) text. I'm living in Dolbeau-Mistassini a little town at 1H30 (that is located one and a half hours) by car from Chicoutimi. I'm (a) «intervenante sociale» (social worker) to (at) CIUSS du Saguenay-Lac-St-Jean with persons (people) who have drugs (drug) problematics (problems) lik (like) alcohol, marijuana, cocaine, etc. My «mission» is to help them to stop these habit (habits) or to use drugs with caution (metect redduction) (reduction of the effects). It's not always easy to do this job because we always wak (wake) with problems. That's the reason why it's necessary to have a lot of activities to do during off days (days off).

To (For) my part, during winter, I love to go skiing in Mont-Vallin. Skiing in the mountains help (helps) me to think at (about) other things end (and) see beautifuls (beautiful) «paysages» (landscapes). During summer, I pass (spend) all my week-end (weekends) (fishing) in (the) wood to fishing! That's the best activitie (activity) to relax. When we are in nature, it's realy (really) easy to connect we us. But the most amazing feeling it's (is) when you have a big throat (trout) on your fishing rode (rod)! You live a lot of emotions like be (being) afraid (afraid) to loose (lose) your fish and excited to see hew (how) big (it is) is it!

It's the kind (kinds) of activities I do to be able to do this job during all my career. Heven (Even) if we always work with problems, it's the most beautiful job ever because we often are the only person (persons/people) who believe in (the) person (people) we meet.

Verb correct occurrences: 38   Incorrect occurrences: 10   Lexical/spelling mistakes: 32
Total number of words: 238

Participant B11's text: Two years ago, I went to Europe, more especially in Toulouse, France, I choose (chose) this city for two reasons: first, I (had) read that Jean Jaures University was one of the best University (universities) for linguistic (linguistics) and in second (secondly), it seems (seemed) to be a really nice city, It (is) called: La Ville Rose! I lived there for almost five months. I really liked it, I was in the middle of the city: in downtown so I was closer of (to) everything. The University was really different from the University in Chicoutimi and more bigger to!

Of course, I traveled (travelled) during these five months, I went to Barcelona for a week-end (weekend), where I met a nice girl. Her name is/(was) Katherine. She come (comes) from Taiwan. During two days, we went on (to) night club (clubs) with guys of our hostel (hotel). Also, I visited Bordeaux and Paris with my mom and my little brother. Great memories! Because I was alone for Christmas's vacations, I traveled (travelled) for a week in Portugal, I visited three cities: Lagos, Porto and Lisboa, Lagos was my favourite place. I will (would) (have) loved (to) spend more time in Portugal and maybe one day. I hope to return there.

My next trip is in two weeks, I'(ll be) leaving May 2 with my best friend Julie. We'(ll be leaving) for twenty-four days in Thailande (Thailand)! We plan to visit Bangkok, Chiang Mai, Chian Rai and Koh Phangan. To leave (go) there, you have to take (get) vaccins (vaccines) before, It's a little bit expensive, but it's for (the) trip, I'm gonna miss Quebec and my family!

Verb correct occurrences: 24   Incorrect occurrences: 13   Lexical/spelling mistakes: 12
Total number of words: 249

Participant B12's text: In 2012. I began an (a) master (master's degree) in linguistic (linguistics), more specifically in textual coherence, I studie (am studying) the impact of the connectors word on the textual coherence! For exemple (example), «however», «but», «and», Are they well used, in a good contexte (context)? Why (could) they could be badly used, and what is the impact on the texts?

My reshearch (research) director is Odette Gagnon. She's a very entheusiastic (enthusiastic) woman, Shes (She's) also very patient because I didn't work hard enough to finish the master (master's degree) in two years. We met (meet) sometimes maybe once a mounth (month). Working on my master (master's degree) is emotionnal (emotional) and I'm sever (severe) about the quality of my writing. So it's never enough to send my text (s) to Miss Gagnon.

Someone tolled (told) me a (one) day: «A good master (master's degree) is a finish (finished) master (master's degree)». Then I think (thought) that even if my work isn't (wasn't) perfect.

I must (had to) send the new part(s) to Miss Gagnon, I need to beat my fear of critics to go away.

My goal is to finish this year and to graduate in 2020. It will be a big realisation (realization/achievement) in my life. It's important for myself to finish with a master's degree. And I will have a better salary.

Verb correct occurrences: 23   Incorrect occurrences: 9   Lexical/spelling mistakes: 23
Total number of words: 192

Participant B13's text: My passion in life is animals. When (That's why) I always had pets. In my child time (childhood), I had a lot of different animal species like cat(s), dog(s), budgie(s), gerbil(s), hedgehog(s), mouse (mice), rabbit(s), guinea pig(s), and a lot of other (others). My dream was to become (a) veterinarian. I did not become (a) veterinarian, but I'm OK with it. I think this career would not be for me because I'm too sensitive, I don't like to see an animal who (that) suffer (suffers) and cruelty. Now, I'm not (a) veterinarian but I have a lot of animals (one dog, three cats, four cockatiels and two tortoises) so I can live my passion without seeing horrible things. I chose to become (a) french (French) teacher instead (of a) veterinarian and I'm very happy and proud of my choice. It's a so (such a) special moment when a student finally understand (understands) a concept I (have) explained to the class. This job is not always easy, Dealing with teenager (teenagers) can be stressful. But when you take the time to understand them and treat,them with respect it can be fun to work with teens. They are smart and funny and they have the power to bring you joy in a day.

Verb correct occurrences: 31   Incorrect occurrences: 3   Lexical/spelling mistakes: 20
Total number of words: 194

Participant B14's text: In the following text, I will explain briefly why I am quite good in english (English). Since I'm (was) young, I (have) had some experience(s) where I (have) had the chance to learn how to express myself in this langage (language).

First, in high school, I went at (to the) « école secondaire Charles-Gravel » in (the) international studies program. From secondary 1 to 5, I had advanced english (English) classes every weeks (week) at school.

(A) few years later, with (the) Explore program, I went to Ottawa for a summer. There I had advanced english (English) class (classes) and I was living an immersion in this bilingual (bilingual) city. For me, it did (made) a huge difference to learn in a theorical learning and immersive context.

Unfortunaly (Unfortunately), three years later, I felt that I (had) lost a part of my hability (ability) to have a fluent discussion in Shakespeare's langage (language). I was able to read and to understand well while someone was speaking to me. But my oral expression wasn't fluid (fluent) anymore. Then, I received a job offer to be a behavior technician at Riverside regional high school. This job is one of the major reason (reasons) of my knowledge of (the)

english langage (English language), by (both) oral and written.

<u>Verb correct occurrences:</u> 20   <u>Incorrect occurrences:</u> 5   <u>Lexical/spelling mistakes:</u> 22
Total number of words: 188

Participant B15's text: I would like to talk about a subject which concerns me: today's education system, I feel like something's wrong. Why (do) so many students leave highschool (high school) before having their diploma? Why (do) so many students feel stressful (stressed) in the classrooms and have diagnostics (diagnoses) of Hyperactivity trouble (Disorder)? Why (don't) young people don't love to go to school and can't find a sense of (give a meaning to) all the learnings they are doing (things they learn) 182 days per year? I think society got involving (has got involved) but the system has stayed the same since (for) too much (many) decades, I think kids can not stay sitted (seated) and are making trouble in the classroom just because the way school works is unadapted to their reality. Kids need to run, to touch, to smell, to breathe. They have to learn about themselves, love, nature and empathy before to learn (learning) about science. They need to SLOW down... In fact, they need to get back to the rythm (rhythm) they had before we told them to walk faster and to hurry because we have (had) a scedule (schedule) (that was) really too busy. It's us, adults, who have to walk slowly, to follow the rythm (rhythm) of our kids, because it is the most healthy (healthiest thing). We have to open our eyes and see that our society is getting the most stressful ever, like a world's run to get the most efficient, but the most unhappy...

<u>Verb correct occurrences:</u> 39   <u>Incorrect occurrences:</u> 10   <u>Lexical/spelling mistakes:</u> 10
Total number of words: 224

Participant B16's text:

How (can) video games <u>can help</u> for English aquisition (acquisition)?

There <u>is </u>no better way <u>to learn</u> than by <u>having</u> fun, Children <u>learnto walk,</u> <u>to use</u> their body for specific and general tasks by <u>playing</u>. Actually, it <u>could be</u> the same for knowledge.

I think that young children should not stay too long before screens as (like) televisions, iPads or computers.

As anybody else in the Quebecois/Quebec education system, I started English courses when I was 12. It was very basic and I only remember my group practicing a few things: shapes, colours, presentation sentences. It was basic, but also difficult and, at least in my mind, absolutely uninteresting.

Even if I had taken English courses during my high school and my cegep, I only felt I was really improving when I started my bachelor('s) degree. There were people in my group who were fluent in English, and at the same time, I started to work with public, sometimes in English.

I've never played video games in English or with English people, but I really think it could have helped me, because the game (games) itself (themselves) and the funny part (parts) of

it (them) would have helped me to make efforts and to improve my level without thinking of it.

Verb correct occurrences: 30   Incorrect occurrences: 1   Lexical/spelling mistakes: 7
Total number of words: 205

Appendix H - Occurrences of mistakes and participation (Observation)

Table 8 - Occurrences of mistakes

Participant	Verb tenses mistakes	Participant	Verb tenses mistakes
A1	comes (come)	B9	it'shelp (helped). it's (is). it'shelp (helps), practice (practiced), watch (have been watching), saw (see), reconize (recognize)
A2	enter in (am a part of), (has)helped, I've learn (learned). (have) improved. (have) got. writen (written). wasn't (weren't) playing. entering (getting)	B10	Stay (Living), it's(is), wak (wake), help (helps), pass (spend), fishing)in (the) wood to fishing, it's (is), be (being), loose (lose), (it is) is it
A3	using (use), become (becomes), uses (use), help (helps)	B11	choose (chose), (had) read, seems (seemed), (is) called, traveled (travelled), come (comes), traveled (travelled), will (would) (have) loved(to) spend, (ll be)leaving, (ll beleaving), leave (go), take (get)
A4	to familliarize (familiarize), engage (engaged), (to) add, might seems (seem)	B12	studie (am studying), (could) they couldbebadly used, Shes (She's), met (meet), tolled (told), finish (finished), think (thought), isn't (wasn't), must (had to)
A5	its draw (is drawn)	B13	suffer (suffers), understand (understands), (have) explained
A6	(have) really learned, (has) also exposed, (have) taught, (have)opened up	B14	I'm (I was), I (have) had, (have) had, did (made), (had) lost
A7	takes (have taken), is (was), touch (touched), were capable (have been	B15	Why (do) so many students leave, Why (do) so many students feel,

Participant	Verb tenses mistakes	Participant	Verb tenses mistakes
	able to), went (came), learnt (have learned), knew (know), can (could)		Why (don't) young people don't love, can't find a sense of (give a meaning to), are doing (things they learn), got involving (has got involved), sitted (seated), to learn (learning), have (had), (that was)
A8	(It) Depends (depends), practique (practice), the time you're (spending time), wrote (write), it's (is), wrote (write)	B16	(can) video games can help

Table 9 - Participant A1's observation

Verb tenses	Present	Imper-fect	Present progres-sive	Future	Infinitive	Impera-tive	Past partici-ple	Present partici-ple	Condi-tional
Occur-rences	Mean, am (4), think (2), depends, have (4), don't have (3), wants, is (6), want (2), are (2), need (2), brings, use, do we have, wanna	Got (3), learned, didn't use, liked, did you know, was, had (3), recognized, thought, ate	Am coming, am not shooting, are you doing, am feeling	Am gonna get, is gonna, are gonna go, gonna put, will do	To take, take, to know, invite, to handle, to go (2), to try, talk, see, to point, to look up, make, get	Tell, let's make, let's get, let's do	Locked, made	Using, cooking	Would like, could be
Total number of occur-rences	32	14	4	5	14	4	2	2	2

Table 10 - Participant A3's observation

Verb tenses	Present	Imperfect	Infinitive	Imperative	Future	Present participle	Present perfect	Present perfect continuous
Occurrences	Wanna (3), is (7), want (2), am (2), don't have, hear, go, think, don't talk, doesn't work, have (2), talk, land, are	Were, got (4), didn't see, didn't catch, said, was (2), jumped, thought	Go (4), make (2), to try, to get	Shoot (2), let's go (2), let's do,	Will arrange. are gonna die	coming	Have got (2)	Haven't been playing
Total number of occurrences	25	12	8	5	2	1	2	1