

An investigation of learning grammatical gender in French at the beginner
stages: does the L1 make a difference?

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ABSTRACT

An Investigation of Learning Grammatical Gender in French at the Beginner

Stages: Does the L1 Make a Difference?

Darius Karka

Research has demonstrated that learning grammatical gender in French for *English* speakers is difficult (Lyster, 2004; Lyster & Izqueirido, 2009), and does not easily progress from item learning to system learning (Bell & Collins, 2009; Harley, 1998). This is usually explained by the absence of grammatical gender in English, but research on the facilitative effects of L1 for gender are contradictory (Sabourin, Stowe, & Haan, 2006; White, Valenzuela, Kozłowska-MacGregor, & Leung, 2004) and have not examined the actual learning process in the initial stages. These issues are addressed by comparing the learning of two reliable noun ending cues for gender (*-eau* for masculine and *-tion* for feminine) in French by speakers whose L1 marks grammatical gender (Spanish) with those whose L1 does not (English).

Beginner-level English (n=12) and Spanish (n=16) speakers were exposed to the noun endings via crossword puzzle and picture-matching activities. A pre-post-test design examined their ability to assign gender to both familiar and novel nouns, measured via a 3-choice preference task and a picture identification task. Post-task interviews probed learners' awareness of the noun-ending cues for gender. Analyses of variance with Time and Performance on novel and familiar items as an indication of *item* vs. *system* learning revealed significant gains by both groups, particularly on the familiar items, but no differences between groups, nor did the groups differ in their awareness of noun-ending gender cues.

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CHAPTER 1: INTRODUCTION

According to Trask (1993), gender is “a grammatical category found in certain languages by which nouns are divided into two or more classes requiring different agreement forms on determiners, adjectives, verbs or other words” (p. 115). Grammatical gender is not a universal category, but it is estimated to occur in about 75% of the world’s languages (Mallinson & Blake, 1981). An interesting question in the field of Second Language Acquisition (SLA) is whether it is easier to *learn* grammatical gender in a second language (L2) if learners already have it in their first language. That is, if a language manifests grammatical gender agreement at the determiner and noun level (e.g. French), would learners whose first language (L1) has a similar system (e.g. Spanish) have an easier time learning that feature in an L2 than learners whose L1 does not have grammatical gender agreement at all (e.g. English)? There is surprisingly little agreement in the existing research that is able to answer this question. The goal of this thesis is to explore the idea of cross-linguistic influence on the learning of grammatical gender features in French as a second language by two groups of learners; one that has grammatical gender in their L1 (Spanish) and one that does not (English).

Why Grammatical Gender?

The learning of grammatical gender in an L2 can provide evidence on how learners acquire a feature that is either similar to or different from their L1. Unlike some other features of language that differ cross-linguistically, for example postpositions/prepositions and definite articles (e.g. English: “In the garden”, Punjabi: “Garden *in*”) (Jackson, 1981), grammatical gender is relatively easy to describe and often

follows reliable patterns (DeKeyser, 1998). For example, gender agreement in Lithuanian at the adjective and noun level demonstrates a pattern for masculine and feminine suffixes: *geras berniukas* (good boy) for masculine and *gera mergaitė* (good girl) for feminine. In Portuguese, patterns between the definite article and noun can be observed. For example, *o marinheiro* (the sailor) for masculine and *a casa* (the house) for feminine. In French, the target language of this study, there are reliable noun endings that provide cues as to whether they are masculine or feminine. For example, nouns such as *rideau* and *tableau* indicate masculine gender due to the *-eau* suffix, and nouns such as *rondelle* and *poubelle* indicate feminine gender due to the *-elle* suffix (Bell, 2008; Lyster, 2006). Thus, participants could hypothetically learn the target features by noticing a predictable pattern in the input.

Schmidt (1990) developed the theory that noticing features in the input may be necessary for adult acquisition of grammatical features. The point of the present study is to investigate whether the amount of learning of grammatical gender during exposure to exemplars with reliable noun ending cues varies as a function of the learners' L1. That is, does the presence of grammatical gender in the L1 predispose learners to pay more attention to this feature in the input thereby giving them a learning advantage over learners whose L1 lacks grammatical gender?

Previous studies have examined beginner Anglophone learners of French through Form-Focused Instruction (FFI) methodology on gender acquisition. Harley (1998) tested Anglophone learners of French between the ages of 6 and 7 to see if FFI of certain gender patterns in French promoted learning. The group that received FFI outperformed the group that did not. However, the group that received FFI was not able to demonstrate

learning on novel noun items and demonstrated a pattern of masculine default. Lyster (2004) examined older English speaking children (10-11) and demonstrated that beginner learners were able to learn grammatical gender patterns in French with FFI despite the type of feedback received. Participants were also able to demonstrate learning on novel items. The same results were demonstrated in Lyster & Izquierdo (2009).

The present study is not specifically evaluating FFI, but instead is focusing on whether gender is learnable with repeated exposure to the target features in the absence of explicit instruction. The purpose was to see whether the amount of learning of two reliable grammatical gender cues in French would be greater for Spanish-speaking participants (whose L1 marks the feature in a similar way) than for English-speaking participants.

It is important to understand the contributions this study is intended to make. Although previous studies have looked at the knowledge of grammatical gender in an L2 by learners with different L1 backgrounds, this research has focused on knowledge of gender at one point in time (Alhawary, 2005; Sabourin et al., 2006; White et al., 2004), often by intermediate to advanced learners. Studies that have looked at the *learning* of grammatical gender have focused on participants who shared the same L1 (English) (Bell, 2008; Harley, 1998; Lyster, 2004; Lyster & Izquierdo, 2009). The present study is designed to expose beginner learners of French from two L1 backgrounds to reliable noun ending cues for grammatical gender, investigating the potential facilitative role the status of grammatical gender in the L1 has in *learning* article and noun agreement in French.

The Present Study

The participants in the present study were beginner level learners of French L2. There were 12 adult native English-speaking participants and 16 adult native Spanish-speaking participants (ages 17-65). None of the English participants spoke a second language; the Spanish-speaking participants had basic knowledge of English but no knowledge of any other L2 (This is further discussed in Chapter 3).

The present study followed a pre-test/post-test design. The participants' knowledge of gender agreement on the pre-test was compared with their knowledge of gender agreement on the post-test after the treatment tasks were completed. In other words, the aim of the study was to understand if the participants *learned* anything after treatment, and if there was a difference between the English and Spanish participants. Furthermore, the learning of familiar and novel nouns was examined to see if *item* and *system* learning took place. *Item* learning can be defined as the learning of exemplars that the learner has already come across, while *system* learning transfers this knowledge to experience with novel items (Bell & Collins, 2009). The data collected were analyzed to answer the following two research questions:

- 1) Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in learning the grammatical gender of the nouns they are exposed to?
- 2) Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in assigning grammatical gender to novel nouns?

The remainder of the thesis is organized into six chapters. Chapter 2 is a literature review providing an overview of grammatical gender and its acquisition in the L1 and L2.

It concludes with the specific research questions for the present study. Chapter 3 describes the methodology used in the study, providing a detailed description of the instruments, participants, and procedures followed. Chapter 4 explains the statistical analysis used in the study and the results. Chapter 5 summarizes and interprets the findings. Finally, Chapter 6 addresses the challenges and limitations of the present study and its overall contributions to the study of second language acquisition.

CHAPTER 2: REVIEW OF RELEVANT LITERATURE

The purpose of this chapter is to provide an overview of grammatical gender and the findings to date on how it is acquired. The chapter begins with a description of grammatical gender and how it is realized in different forms across languages. Subsequently, a more detailed description of the grammatical gender systems in the three languages of the present study - French, Spanish, and English - will be discussed. The overview of grammatical gender will provide the reader with an understanding of the similarities and differences between the languages under investigation and a more thorough understanding of what type of knowledge the participants may have about grammatical gender from their L1. The next section synthesizes our knowledge of both L1 and L2 acquisition of grammatical gender. The L1 acquisition section focuses on the findings relevant to understanding L2 acquisition, as well as how native-language processing differs from adult L2 processing. Additionally, a discussion will be dedicated to the facilitative effects L1 grammar has on the acquisition of grammar in the L2. Finally, the chapter concludes with the gap in our knowledge that the present study is intended to address and the research questions that the study is designed to answer.

Grammatical Gender Across Languages

Although grammatical gender differs across languages, the most common system for gendered languages is for all nouns to have one of two genders (approximately 50 languages in total; Corbett, 2011). Languages such as French, Spanish, and Portuguese contain nouns that are considered either masculine or feminine. Three-gender languages like Russian, German, and Dutch have a third *neuter* gender and are less common

(approximately 26 languages in total; Corbett). In addition, there are approximately 145 languages worldwide that do not have a grammatical gender system (Corbett). English is a language absent of gender on nouns, except with pronouns (*he, she*), which indicate the natural gender of the referent. Languages like Farsi and Turkish are completely gender neutral; that is, they do not contain nouns marked for gender, nor do they manifest gender at the pronomial level to indicate the natural gender of the referent. Words like “*ao/او*” (Farsi) and “*o*” (Turkish) are used as pronouns to indicate both *he/she*. Table 1 demonstrates how grammatical gender is represented morphosyntactically across different languages, and that gender agreement can extend to adjective agreement and pronouns:

Table 1

Types of Gender Distribution across Languages

Type	Language	Examples	Explanation
Noun-adjective Agreement Akhutina et al. (1999)	Russian	1) ploxo _j -dom <i>bad house</i> плохой дом	Masculine
		2) plo _x -a _j a kvartira <i>bad apartment</i> плохая квартира	Feminine
		3) plo _x -o _j e czilicsce <i>bad dwelling</i> плохое жилье	Neuter
Pronouns Corbett (1991)	English	1) <i>He/she</i> enjoys watching the sunset.	1) Gender reflected in personal pronouns referring to male/female humans.
		2) <i>It</i> is growing beautifully.	2) <i>It</i> is a personal pronoun determined by way of animacy, not belonging to male or female humans.
		3) This is <i>his/her</i> book.	3) Gender reflected in possessive pronouns.
		4) He/she saw <i>him/herself</i> on TV.	4) Gender reflected in reflexive pronouns.
Determiner-adjective Agreement Oliphant (1999)	Italian	1) Il nuovo libro <i>The new book</i>	Masculine
		2) La vecchia poesia <i>The old poem</i>	Feminine
Absence of Gender	Farsi	1) āo khosheḥāl āset <i>He is happy</i> او خوشحال است	There is no distinction between masculine and feminine nouns, even at the pronomial level.
		2) āo khosheḥāl āset <i>She is happy</i> او خوشحال است	

Only the grammatical gender systems of French, Spanish, and English will be discussed in more detail since these are the languages under investigation. French and Spanish manifest grammatical gender in similar ways. Although English is not entirely absent of gender, it will be referred to as genderless (- gender) when compared to both French and Spanish since it does not manifest gender within nouns or in agreement at the determiner and noun level.

Overview of French Grammatical Gender

All nouns in French are considered to be either *masculine* or *feminine*. In the French language, only 10.5% of nouns are ascribed as either masculine or feminine due to semantic categories (Ayoun, 2010). For example, nouns referring to male human beings are masculine (*un garçon/a boy, mon père/my father, un neveu/a nephew*), while nouns referring to female human beings are feminine (*une petite fille/a little girl, ma tante/my aunt, une belle-soeur/ a sister-in-law*) (Ayoun, p. 119). However, article and noun agreement can be perceived as arbitrary from a semantic perspective when dealing with inanimate nouns. For example, a small number of nouns, such as *le/la livre* (book/pound) and *le/la poste* (position/mail service) demonstrate a change in article usage depending on the meaning of the noun. Thus, *la voiture* indicates agreement between the feminine article *la* and feminine noun *voiture*, while *le garage* indicates masculine agreement between the article and noun. From a semantic point of view, it can be considered arbitrary that *voiture* is feminine and *garage* is masculine. However, from a morphological point of view, the correspondence between a word and its gender is not as arbitrary.

French nouns typically ending in *-ure* are indicative of feminine gender with a predictability rate of 96%; nouns ending in *-age* are predictable of masculine gender at a

rate of 97% (Lyster, 2006). This indicates that French gender assignment is rule-governed based on morphological predictability. However, there are exceptions. For example, French words ending in *-ette* have a 95% predictability rate for feminine nouns (Lyster) and can be perceived as a “feminine-like” suffix (see below). On the other hand, *le squelette* demonstrates masculine agreement between the article and noun and can be considered an exception to the rule. This demonstrates that some aspects of lexical gender can still be a randomly prescribed distinction despite the predictability of most suffixes.

Many nouns in French have proportionate predictability in either being masculine or feminine, which can make the system more difficult to acquire. For example, word final phonemes ending in /e/ are only 53% indicative of the masculine gender (Lyster), and thus words like *la chaise* and *le livre* would have to be committed to memory as separate lexical entries.

In this study, the French suffixes *-eau* and *-tion* are under investigation. There were two reasons for choosing these suffixes. One is that they are predictably masculine (*-eau*, 93%) and feminine (*-ion*, 98%) (Lyster, 2006)¹. In addition, many words ending in *-eau* are common nouns, such as *bateau*, *château*, *gâteau*, and are suitable for beginner learners (Bell & Collins, 2009; Hardison, 1992). Many items ending in *-tion* are not overtly feminine in the same vein as *-ette* or *-elle* would be², and nouns with a *-tion* suffix are suitable for beginners to learn since words with that suffix are often similar in meaning to the same words in both Spanish and English, e.g. *the station* (English), *la station* (French), *la estación* (Spanish).

¹ Although Lyster (2006) includes *-ion* as a feminine suffix in his corpus, *-tion* is the target item under investigation since all feminine nouns in the present study contain that suffix.

² Beginner participants from various L1 and L2 backgrounds were pilot tested on their knowledge of French nouns ending in *-ette*. An overwhelming majority of participants generalized *-ette* to the feminine. French suffixes ending in *-elle* were not considered by Bell & Collins (2009) for the same reason.

Overview of Spanish Grammatical Gender

Grammatical gender inflection in Spanish functions similarly to French in that the system also manifests gender on nouns with rule governed suffixes. Spanish has two reliable suffix predictors of gender: *–o* for masculine (*el sapato*, the shoe) and *–a* for feminine (*la sandalia*, the sandal). These nouns both refer to footwear, but differ in grammatical gender as a function of their different suffixes. From a morphological perspective, the *–o* suffix in Spanish is reliably masculine, while the *–e* suffix is reliably feminine (*noche*/night, *serpiente*/snake, *torre*/tower) (Roca, 1989). However, words such as *diente*/tooth, *jarabe*/syrup, and *envase*/container are masculine and would have to be memorized as separate lexical entries by the learner (Roca).

There is a notion of lexical gender in Spanish, for example *el pueblo* (the village) and *la ciudad* (the city) (Roca). Both words are similar in meaning yet contain two different genders, *el pueblo*/masculine and *la ciudad*/feminine. In Spanish, nouns are also inflected for semantic gender like in French. For example, *el maestro* (male teacher) and *la maestra* (female teacher) are nouns whose morphology reflects the biological sex of the referent. This correlation seems to lead naturally to the direct assignment to these suffixes of the meanings ‘male’ and ‘female’, respectively. However, Spanish suffixes are not always reliable. Words such as *clima*/climate, *lema*/motto, *drama*/drama, *idioma*/language, and *sistema*/system are masculine (Roca) and are exceptions to the association that *–a* suffixed-nouns in Spanish are feminine.

Table 2 demonstrates how definite and indefinite determiners agree with the noun suffixes in French and Spanish. English is provided as a contrast to demonstrate that it does not inflect nouns or articles for gender.

Table 2

Grammatical Gender in French, Spanish, and English

Language	Article (masculine)	Noun (masculine)	Article (feminine)	Noun (feminine)
French	Le (definite)	Bateau	La (definite)	Nation
Spanish	Un (indefinite)	Barco	Une (indefinite)	Nación
	El (definite)		La (definite)	
	Un (indefinite)		Una (indefinite)	
English	The (definite)	Boat	The (definite)	Nation
*no gender	A (indefinite)		A (indefinite)	

Acquisition of Grammatical Gender in the L1

Developmental Patterns

Previous research with children learning their L1 has demonstrated patterns indicating that the acquisition of grammatical gender is developmental for Romance languages. In the L1, children are able to distinguish between grammatical and ungrammatical sentences regarding gender agreement by approximately two and a half years of age (Corrêa & Name, 2003; Cyr & Shi, 2010). Children are also able to use gender marked articles to predict the gender of a subsequent noun by age three (Lew-Williams & Fernald, 2007). By age four, children are highly accurate in the production of both masculine and feminine gender and rely less on a masculine default strategy as demonstrated in younger years (Corrêa, Augusto, & Castro, 2011).

Corrêa and Name (2003) investigated Brazilian children from Rio de Janeiro, mean age (23;2 months). The children were expected to listen to basic instructions from a

puppet and point to correct pictures from a book corresponding to what was said, for example, “*Mostre a bola pro Dedé/Show the ball to Dedé*”. Children were also required to point to pictures when sentences had incongruent determiner agreement, invalid complementizers, pseudo functional items, and random syntactic structure. Brazilian Portuguese children, aged 21-28 months, demonstrated sensitivity to incongruent determiner agreement, and were able to choose correctly constructed sentences in the majority of cases. Furthermore, infants are already able to demonstrate robust gender categorization at around two years of age. Cyr and Shi (2010) used a preferential looking paradigm on twelve 30-month monolingual Quebec-French-learning infants. They were able to distinguish between grammatical and ungrammatical items on novel nouns with distributional cues alone.

Spanish speaking children acquire article-noun agreement by the age of three (Hernandez-Pina, 1984; Lleo, 1997; Lopez-Ornat, 1997; Mariscal, 1996, 2001). Monolingual child-speakers of Spanish, 2-3 years of age, can use their knowledge of gender agreement via familiarization to understand the inherent gender of pictured nouns. Through a looking while-listening procedure (Fernald, Perfors, & Marchman, 2006) children were able to recognize correct nouns when provided with gender-marked articles that were informative (Lew-Williams & Fernald, 2007).

Even though children, by age 2, are able to produce accurate gender agreement, it may not become a reliable productive system until age 4 (Corrêa et al., 2011). Corrêa et al. investigated gender agreement in Brazilian Portuguese by children between the ages of 2 and 4. Children had to listen to a story and follow along with pictures. After the story finished, a *Wh*- question was asked, and they needed to answer the question by referring

back to an invented character in the story. The invented character's name indicated its gender through definite articles *-o* and *-a* and indefinite articles *-um* and *-uma*. Suffixes for pseudo-nouns were *-o* (masc.), *-a* (fem.), and *-e* (both). Feminine agreement appeared to be the most demanding feature among the 2 year-olds, but by 4 the children were highly accurate in production with both genders.

Boloh, Escudier, Royer and Ibernion (2011) propose that there is masculine default strategy in the acquisition of grammatical gender in French L1. They examined 109 children ages 4-10 through production tasks. In an interview, the children were asked to describe what the experimenter was doing with artificial objects introduced to the participants with nonce nouns (i.e. *une kibon*, *un bijette*). The results indicate that children produce more masculine gender congruent answers than feminine gender congruent answers but never at above chance levels, which suggests that masculine knowledge is still low and not due to aptitude.

Boloh and Ibernion (2013) attempt to provide a justification as to why a masculine default can be observed. They noted that there is a 58% vs. 42% difference in masculine vs. feminine French nouns' type frequencies, meaning masculine nouns are more frequent in the input. Furthermore, vowel-initial feminine nouns actually take masculine forms of possessive pronouns such as "mon oreille" (p. 464). Finally, plural pronouns in French take a masculine default when referring to inanimate objects or a group of people representing both male and female genders as in *Ils sont à l'école* (They (the children) are at school). Research on the masculine default needs more development since it can be seen in other L1 and L2 studies across languages, such as Spanish (Bruhn de Garavito & White, 2003; McCarthy, 2008; White et al., 2004), Dutch (Cornips, 2008; Unsworth,

2008), Brazilian Portuguese (Corrêa et al., 2011), and Lithuanian (Mačiukaitė, 2008).

Acquisition Strategies

During the acquisition of grammatical gender in the L1, children may rely on formal cues (phonological, morphological) than semantic (natural gender) to perform gender agreement (Levy, 1988; Perez-Pereira, 1991). Formal information refers to nouns in a language with inherent gender that have suffixes associated with masculine or feminine. For example, in Spanish, a word ending in *-a*, is usually associated with feminine gender, while *-o* is usually associated with masculine gender. The way these sounds are perceived could function as relatively reliable cues that allow the speaker to associate determiners and adjectives according to a noun's gender, whether they are recognized through speech or in the appearance of words. Karmiloff-Smith (1979) contributed to this notion by concluding that French-speaking children age 3-4 rely on phonological cues to perform accurate gender agreement between definite and indefinite determiners and nouns. When input did not indicate conflict between the determiner and mismatched gender suffix, such as *un goltine* (masculine determiner with a nonce feminine noun), the children performed accurately on gender attribution tasks indicating an "implicit system of phonological rules" (Karmiloff-Smith, p. 167).

There are other theoretical accounts for how grammatical gender may be acquired in the L1. First, there is a semantic account of grammatical gender acquisition, which states that gender-marked pronominal words activate the semantic category of the subject as male or female (*Il/elle est intelligent/e*) (Lew-Williams, 2007). Lew-Williams also affirms the following:

[there is also] a grammatical account, which states that, rule-based syntactic knowledge accounts for faster processing of nouns preceded by gender-marked articles. Under this account, the article *la* primes all feminine nouns, leading to more rapid recognition of *pelota/ball*. A third account is phonological in nature and predicts that listeners pay attention to probabilistic properties of spoken language. This distributional account posits that children attend to co-occurrences between neighbouring words in specific article noun pairs and use these regularities in processing language (p. 196).

According to Carroll (1989), when a child is able to recognize a repetitive phonological sequence at the beginning of a noun, “he or she will extract it from the underlying phonological representation” (p. 571). As an example, if a listener hears *la* with an initial cluster such as *ca*, the listener is forced to rely on limiting the probability of the noun to identify a word such as *casa* (the house).

Children are able to distinguish between incongruent and congruent phrases regarding grammatical gender by two-and-a-half, use gender marked articles to predict the gender of nouns by age three, and move past a masculine default strategy and reliably produce masculine and feminine agreement by age four. Also, when acquiring grammatical gender in the L1, children rely on phonological and morphological cues that assist them in generating agreement between words in a sentence (Karmiloff-Smith, 1997; Levy, 1988; Perez-Pereira, 1991). Children also rely on pronouns and determiners to indicate the gender of the subsequent adjective/noun in a phrase, for example *elle est grande* and *le chapeau* (Lew-Williams, 2007).

Acquisition of Grammatical Gender in the L2

It is suggested that children in the L1 acquire nouns with the accompanying article as a single unit as opposed to adults who would acquire them separately (Arnon & Ramscar, 2012). Because it has been observed that children anticipate appropriate gender-marked nouns when a masculine or feminine article is provided (Lew-Williams & Fernald, 2007), it is theorized that children lexically store nouns upon encountering them with the appropriate article given in the input. Therefore, different types of determiners and their agreement with masculine and feminine nouns are stored as individual lexical entries as opposed to the understanding of rules governing agreement – a strategy most often employed by adults. It is theorized, then, that adults learn grammatical gender in an L2 by:

1. Learning to recognize that certain orthographic and phonetic groupings in nouns are predictive of gender assignment;
 2. Relying upon contextual information that specifies noun gender, that is, articles and adjective agreement, over the course of vocabulary acquisitions; and
 3. Relying upon rote memorization of nouns with associated gender marked articles.
- (Sokolik & Smith, 1992).

Therefore, strategies for learning grammatical gender in an L2 may be more complex for adult L2 learners than for child L1 learners.

English Learners + Grammatical Gender L2

Research suggests that grammatical gender is a difficult property to master for second language (L2) English-speaking children and adult learners (- gender in the first language) (Bell, 2008; Harley, 1998; Lyster, 2004; Lyster & Izquierdo, 2009), leading some researchers to question whether native-like mastery of grammatical gender in an L2 is attainable at all (Gruter, Lew-Williams, & Fernald, 2012).

Two studies have shown that in the initial stages, learners may learn the gender of individual items but do not easily generalize patterns to novel nouns (i.e. system learning is not apparent). Bell (2008) tested 36 adult Anglophone low-level French participants by exposing them to reliable noun ending cues for masculine (-*eau*) and feminine (-*elle*) nouns on a crossword exposure task. Results indicated that participants were able to indicate some knowledge of previously encountered nouns from the exposure task but were not able to demonstrate this knowledge on new nouns. Harley (1998) demonstrated similar results with English L1 children aged 7 and 8. Even though her study involved a much longer treatment and explicit focus-on-form instruction, the students were not able to generalize knowledge about noun endings to unfamiliar nouns.

There is evidence of system learning among learners at a higher level of proficiency in French. Lyster and Izquierdo (2009) witnessed that undergraduate university students learning intermediate French were able to perform well on gender agreement after significant form-focused exposure with either recasts or prompts for feedback. Participants made significant progress over time, improving from pretest to immediate posttest and then maintaining their improvement at the time of delayed posttesting (Lyster & Izquierdo, p. 482). A combination of exemplar-based learning and

rule-based learning was involved, meaning that participants were able to perform well on gender agreement on high frequency and low frequency nouns. Thus, the ability to project knowledge of noun endings learned during treatment onto new nouns (system learning) may require a greater overall familiarity with the L2, something that Harley (1998) also suggested in interpreting her findings.

According to Hawkins (as cited in White, 2003), advanced English learners of French exhibit persistent problems: (i) showing greater accuracy with gender agreement on definite determiners than on indefinite determiners, and (ii) adopting a “default” gender on determiners (leading to overuse of one or other gender) (p. 136). In many studies, the default has been observed to be masculine (Bruhn de Garavito & White, 2003; Cornips, 2008; Harley, 1998; Mačiukaitė, 2008; McCarthy, 2008; Unsworth, 2008; White et al., 2004).

Conflicting findings suggest that adults demonstrate persistent difficulty in computing gender agreement in an L2 if the L1 is void of similar gender features (Hawkins, 2009; Sabourin et al., 2006), while other studies consider it to be possible despite the L1 (White et al., 2004), and that difficulties with gender have to do more with producing agreement in real-time (Hawkins 2000; Prévost & White, 2000).

Regarding the learning of determiner and noun agreement, however, the possible reasons for difficulty is that adults may tend to learn features in an L2 in isolation as opposed to the relationships between features, such as articles and nouns. In a study of 32 English speaking adults learning an invented language, Arnon and Ramscar (2012) showed that participants are better at learning grammatical gender in an artificial language when they are exposed first to article-noun sequences and then to nouns as

compared to learners that start out with nouns and then hear article-noun sequences

There is also evidence that like children, adults can also demonstrate an advantage in learning gender agreement through morpho-phonological and syntactic cues. Although adults perform successfully on gender agreement with nouns that are known and recognizable, they also rely heavily on morphological cues to assign correct gender agreement between determiners and nouns (Holmes & De La Batie, 1999). In the previously mentioned study, 50 foreign English speaking learners of French enrolled in a second-year university class in Melbourne demonstrated gender assignment more quickly on non-words than on real words due to the recognition of noun endings alone during spontaneous written production tasks and gender categorization tasks. This indicates that L2 adult learners of French utilize morphological patterns as strong predictive cues for gender assignment.

Through the examination of 64 first and second-year English learners of Italian in a university setting with three tests examining cues for gender agreement, Oliphant (2000) demonstrated that participants had near perfect ability at assigning gender when given complementary morphophonological and syntactic cues. However, participants had difficulty assigning the plural endings *-i* and *-u* as they were overgeneralized to the masculine, and about equal difficulty assigning the feminine ending *-e* to either masculine and feminine nouns. By extension, participants showed difficulty in gender assignment when syntactic and morphophonological cues were absent on gender assignment tasks.

Learning grammatical gender in an L2 is difficult for adult English learners after short exposure to reliable cue endings (Bell, 2008), and English children are not able to

project previously learned gender patterns onto nouns that are unfamiliar (Harley, 1998). English speakers who already have an elementary knowledge of French can demonstrate system learning after significant exposure to the target features in an L2 (Lyster & Izqueirido, 2009). Like children in an L1, adults also rely on morphophonological cues to facilitate gender agreement in an L2 (Holmes & De La Batie, 1999; Oliphant, 2000); however, difficulty in gender agreement between determiners and nouns could be attributed to adults learning nouns isolated from their corresponding articles (Arnon & Ramscar, 2012). As this is observed to be true for English learners (English as a language without grammatical gender), it is important to determine if the presence of grammatical gender in the L1 helps facilitate the learning of grammatical gender in an L2.

Does the L1 Make a Difference?

In some studies, the presence of gender in the L1 has been shown to positively affect the acquisition of gender in the L2 (Alhawary, 2005; Franceschina, 2001; Sabourin et al., 2006), while in others the presence of gender in the L1 had no facilitative effect (Bruhn de Garavito & White, 2002; Gess & Herschensohn, 2001; Spinner & Juffs, 2008; White et al., 2004). Below I will review the most significant findings from the sets of studies that demonstrate divergent results.

Alhawary (2005) investigated the learning of Arabic gender agreement by 26 French L1 (+gender) and 27 English L1 (-gender) learners at three levels of proficiency. He used semi-spontaneous production tasks using pictures to test participants' knowledge of gender & number agreement between subject & verb & within the noun phrase, and found that French learners outperformed English learners at the beginner, intermediate,

and advanced stages by comparing percentages across groups.

By examining gender acquisition in Dutch by L1 speakers of German (+gender), Romance languages (+ gender), and English (-gender), Sabourin et al. (2006) were able to demonstrate that the presence of gender in an L1 positively affects the acquisition of gender in an L2. By extension, the lack of gender in an L1 makes the acquisition of gender in an L2 more difficult, comparatively. The examination of gender acquisition and transfer effects was divided into two experiments. The first experiment aimed at examining the ability of assigning gender to a list of nouns. In this case, the participants needed to assign the Dutch articles *de* (common) and *het* (neuter) with the appropriate noun presented. All language groups performed well above chance level on the task; however, there were differences among the three groups. The English group had the lowest accuracy rate, at 83%; the Romance groups had a 90% accuracy rate; and the German group performed the highest with a 96% accuracy rate.

The second experiment examined gender knowledge by providing a grammaticality judgment task between noun and relative pronoun agreement. In this case, the relative pronouns *die* (common) and *dat* (neuter) were examined. *Die* also functions as a collapsed, plural relative pronoun but was excluded from the study. Each sentence provided in the study contained a definite determiner before the subject in order to secure its gender. Sentences with indefinite determiners before the subject were also included in the task. Along with grammaticality judgment, it was not sufficient for the participants to simply answer “yes” or “no” to each sentence provided, as there could be a potential for “yes”-bias per answer. Instead, the researchers gave full marks to the participants only if they provided an explanation to the yes/no answer.

Overall, the participants demonstrated more difficulty with Experiment 2. According to Sabourin et al., (2006) the definite items, with gender explicitly marked in the determiner, were responded to more accurately than the indefinite items (79% vs. 73%). Common gender items were responded to more accurately than the neuter gender items (78% vs. 74%) (Sabourin et al., p. 17). This indicates that learners are able to determine a noun's gender by relying on cues from determiners, as well as relying on the predictability of gender from nouns that are more frequent. Abstractly speaking, frequency and morphology appear to be intimately related for accurate gender agreement. Similar to Experiment 1, the English group performed the worst on Experiment 2. Even though all groups performed the best on the definite items, the difference between the two sets of items was greatest for the English group. However, it is still important to note that all groups did worse when indefinite items were present.

Facilitative effects of the L1 were also found by Franceschina (2001) in a study of grammatical gender of advanced Spanish speakers (two English and two Italian speakers). Through a series of recorded elicitation tasks, the researchers observed the type of errors made in gender agreement morphology in Spanish by the participants. English learners demonstrated less success with gender agreement than the Italian learners. For example, Italian participants demonstrated errors mostly with the use of definite articles, producing morphological realizations transferred from Italian. English participants, however, demonstrated difficulty with gender agreement in general.

So far, all the studies summarized demonstrate that speakers of an L1 without gender perform less well than those whose native languages have grammatical gender. However, some studies indicate that non-native speakers from a language without gender can process gender equally well as native speakers from a language with gender in the L1. In the investigation of 20 advanced-English L1 speakers of German L2, it was shown that

the processing of syntactic grammatical gender between determiners and nouns does not fundamentally differ from native processing of inflection (Hopp, 2013). What this means is advanced speakers of German from an English L1 background demonstrate no difference in gender errors across comprehension or production particular to a specific gender form in German (masculine, feminine, and neuter), as well as demonstrating no habitual default strategy. The authors argue that for advanced English speakers of German, “gender acts as an informative cue in processing only once L2ers have converged on the overall target system of lexical gender in the L2; i.e. they have classified (almost) all nouns to the target gender classes” (Hopp, p .51). This evidence indicates that there is overall “mastery” of the target gender system. However, advanced English speakers of German L2 show deficiency in real-time grammaticality judgment tasks when asked to identify congruent adjective and noun agreement (Scherag, 2004). What this means is that there is difficulty for L2 English speakers of German to produce accurate gender agreement in production.

Through Event-related potential (ERP) and eye-tracking experiments, Foucart and Frenck-Mestre (2012) were able to demonstrate that adult advanced Anglophone learners of French (n=14) were able to recognize gender agreement violations on par with native Francophones (n=14) and compute gender agreement online. Sensitivity to grammaticality in Spanish through an ERP procedure was also demonstrated by beginner English learners of Spanish (Tokowicz & MacWhinney, 2005).

The previous results indicate that advanced English learners of L2s with gender can achieve native-like comprehension of gender. However, they may have difficulty retrieving the information in real-time production. (Ayoun, 2007; Prévost & White, 2000;

Prodeau, 2005).

Other studies have shown that the presence of gender in the L1 does not predict greater success in the acquisition of gender in the L2, and that learners from a language that lacks gender, such as English (manifested at the pronomial level only), can be just as successful in acquiring gender in an L2 as learners from a language that has gender. This is evident in White et al.'s (2004) study of proficient L2 learners of Spanish from English (n=68) and French (n=48) L1s. Both groups demonstrate success in gender and number agreement in Spanish. Through a series of tasks (two elicited production tasks, a vocabulary test, and a picture identification task), White et al. were able to observe elicited gender features in Spanish by paying particular attention to adjective and number agreement. The results indicate that adult learners are able to acquire gender agreement in an L2 regardless of the status of gender features in the L1 (White). Both English and French learners demonstrated a high proficiency in adjective and number agreement across tasks. Furthermore, lower proficiency participants tended to be more proficient on number agreement and were more accurate on masculine nouns, and previous exposure to French had no effect on the acquisition of features in Spanish by English participants. English and French adult learners of Spanish were able to successfully show a high level of proficiency on gender items; therefore, there was no impairment demonstrated in the adult learners' ability to acquire gender features in an L2 that do not exist in the L1.

It has also been demonstrated that learners whose L1 has grammatical gender demonstrate difficulty with gender in the L2. In a study of oral production of 27, pre-advanced and advanced Dutch learners of French conversing on topics such as studies, hobbies, politics and economics, Dewaele and Veronique (2001) found evidence of

difficulty with French gender. Errors observed included both gender agreement and assignment at the determiner, adjective, and noun levels.

In a longitudinal study of a Turkish (-gender) and an Italian (+gender) speaker of German, Spinner and Juffs (2008) found that both learners scored poorly on agreement factors that marked gender. Thus the fact that determiners, adjectives, and nouns must agree in Italian like they do in German did not appear to offer an advantage to the Italian speaker over the speaker of a language in which nouns are not marked in any way, and pronouns are genderless.

Summary of L2 Acquisition Findings

There is clear evidence that English speakers find learning gender in French to be challenging (Bell, 2008; Gess & Herschensohn, 2001; Guillelmon & Grojean, 2001; Harley, 1998; Holmes & de la Battie, 1999; Lyster, 2004; Lyster & Izqueirdo, 2009; Vuchic, 1993). Whether this is facilitated by having gender in the L1 remains an open question. The findings discussed in the previous paragraphs show conflicting results regarding transfer effects from the L1 as they relate to learning grammatical gender in the L2. Some studies show facilitative effects for the L1 (Alhawary, 2005; Francheschina, 2001; Sabourin et al. 2006); others show no facilitative effects (White et al. 2004); and some point to the overall difficulty of grammatical gender regardless of the L1 (Dewaele & Veronique, 2001; Spinner & Juffs, 2008). There are two factors that may play a role in the different findings. The first is the proficiency of learners that have been studied. The second is the tendency to focus on existing knowledge of the participants, and not on the actual acquisition of that knowledge.

The studies in which learners of different L1s (with and without gender) are compared have tended to focus on fairly advanced, if not highly proficient learners of the L2. For example, in Sabourin et al., (2006) the participants had to be highly proficient in Dutch while having lived in the Netherlands for more than three years. Furthermore, they needed to have scored highly on a proficiency task to guarantee inclusion in the study. At the advanced stages, Sabourin et al. is only one of a few studies that directly examines the notion that the closer the gender realizations are to the L2, the easier it would be to acquire gender in the L2. That is, Romance languages were included in the study alongside German to see if the presence of gender in the L1 also had a facilitative effect and not just morphological similarities in gender between L1 and L2.

In White et al., (2004), different proficiency levels, low, intermediate, and advanced, were examined, but none of the participants were absolute beginners or with minimal exposure to Spanish. Participants had to demonstrate more than 66% recognition on a Spanish vocabulary test and had to complete all of the proficiency tasks to demonstrate competence.

Because of the divergent results across both studies, examining learners in the beginner proficiency stages is crucial to understand if an L1 advantage is evident earlier on. There have been studies on learning but usually only by one L1-group (English) without gender (Bell & Collins, 2009), but only a few that contrast with a group that has it (Alhawary, 2005; White et al., 2004). Furthermore, most studies do not examine the learning of gender but rather the “state” of knowledge of grammatical gender at a point in time of learners’ development.

Harley (1998) and Bell (2008) are examples of studies that examine the *learning*

of grammatical gender features in French by beginner English participants. Furthermore, both studies extend their research to observe if participants are able to project their previously learned knowledge of noun endings to new nouns. The present study is a departure from Harley's study, since it examines beginner *adult* learners of French, and it is a departure from Bell's study since it is designed to examine whether or not the presence of gender in the L1 will have any facilitative effects on learning gender in French by including Spanish speaking participants.

Research Questions

The present study aims to investigate the previous issues discussed by examining the learning of grammatical gender in French by beginner learners from two language groups: Spanish (+gender) and English (–gender). This study is designed to further investigate the potentially facilitative role of L1 grammar and its influence in the acquisition of L2 grammar. This will be accomplished by examining the process by which grammatical gender is acquired in an L2, specifically looking at the influence of the presence (Spanish) or lack of grammatical gender in the L1 (English). No studies have been conducted to examine the acquisition of grammatical gender in French as a second language at the beginner stages with participants from L1s that have and do not have gender in the L1.

This study will address the gaps in the previous research literature by examining L1 grammar across groups (+gender, -gender), within the same study, targeting the same L2. This means that the study will include both English-speaking and Spanish-speaking beginners of French.

The general research question of the present study was whether Spanish-speaking learners of French L2 would have an advantage over English-speaking participants in the learning of grammatical gender of nouns with reliable endings for predicting masculine and feminine (*-eau* and *-tion*). The two specific research questions were: Following exposure to input containing multiple examples of two sets of nouns with reliable endings indicating their grammatical gender (*-eau*, masculine, and *-tion*, feminine)

- 1) Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in learning the grammatical gender of the nouns they were exposed to?
- 2) Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in assigning grammatical gender to novel nouns?

The first research question compares item learning - that is the grammatical gender of nouns encountered during the exposure task; the second compares system learning - that is whether the knowledge acquired can be applied to new items not encountered as part of the treatment.

Because of the lack of previous research and conflicting findings across grammatical gender studies, no hypotheses were entertained. First of all, no beginner participants were used in the studies of Alhawary (2005), Sabourin et al. (2006), and White et al. (2004). Even though Alhawary's study had a beginner group, they needed to have at least one year of academic exposure to Arabic. In addition, White et al.

considered low proficiency learners, but they had to have already been enrolled in Spanish courses in a university setting, and the proficiency level demanded from the production tasks would be too high for the beginner learners of the present study. Also, the previous studies examined the state of knowledge of gender after exposure to the L2 after a longer period of time.

Regarding learning studies, Bell (2009) and Harley (1998) were considered for motivation regarding system vs. item learning in the present study; however, there was no comparison group with an L1 with gender in either study. Thus, it was not possible on the basis of previous findings to predict that one of the two L1 groups would demonstrate superior item and system learning over the other on French nouns.

CHAPTER 3: METHODOLOGY

The following chapter describes the steps taken and the instruments used in order to address the research questions of the current study. The sections in this chapter will discuss profiles of the participants and how they were recruited, the treatment activities that provided exposure to the targeted noun endings, and the instruments that equated the participants at the outset and that also measured changes in knowledge of grammatical gender as a result of the treatment. There will also be an explanation of how the materials in this study were adapted from Bell's (2008) study.

Participants

Participants were recruited in Toronto via online advertisements through Craigslist and Kijiji, and through personal contacts. To participate in the study, participants needed to self-identify as native English or Spanish speakers with beginner level proficiency in French. None of the English participants (n=18) spoke any other language. All of the Spanish speakers (n=21) were recent arrivals to Canada, with some knowledge of English, but no knowledge of any other language. Participants were compensated \$20 for their time.

Instruments

The following sections describe the instruments used to collect data from participants. The procedure section provides an overview of the order the data was collected and the approximate time taken for each step.

Initial Questionnaire

All participants completed a consent form (see Appendix A) and a language background questionnaire (see Appendix B). The questionnaire was designed to elicit participants' self-reported proficiency of French on a 10-point scale, proficiency in their L1 (Spanish or English) regarding all four skills (speaking, listening, reading, and writing), and knowledge of any other languages. The questionnaire also asked the participants to report how often they use their native language or any other language in different contexts (home, work, friends, internet, etc.) In addition, there were five questions about their general knowledge of French grammar (e.g. *How do you decide whether to write/say « je sais » or « je connais »?*). One of the five questions asked if they knew when to use *le* or *la* in French. The purpose of this question was to screen participants who had prior knowledge of noun ending cues for gender. This question was hidden amongst the other four questions to ensure the participants did not know which grammatical feature the study was targeting.

Based on the results of the questionnaire, two participants' data were not included in the study. One Spanish-speaking participant reported that Spanish was his second language. Another Spanish-speaking participant reported looking at the endings of nouns to determine gender and was also excluded from the study.

Pre-Test

The initial questionnaire was insightful in establishing the language backgrounds of the participants, and a more specific measure of proficiency in French was administered to ensure equal low proficiency across participants, and also to ensure

similar levels of limited knowledge of the two-targeted noun endings. This instrument was adapted from Bell (2008). Bell's study contained 48 items: 8 nouns ending in *-eau*, 8 nouns ending in *-elle*, and 32 items targeting other aspects of French grammar.

In the present study, the pre-test contained 50 questions (see Appendix C): 8 nouns ending in *-eau*; 8 nouns ending in *-tion*; and 34 items highlighting five types of errors frequently made by French learners:

- a. verbs followed by *à* or *de* (e.g. *je commence à travailler/je commence de travailler*)
- b. adjective agreement (e.g. *un verre cassée/un verre cassé*)
- c. *être* or *avoir* (e.g. *être intellingent/avoir intelligent*)
- d. masculine and feminine (with other nouns) (e.g. *un parapluie/une parapluie*)
- e. grammatical homophones (e.g. *tu a des beaux yeux/tu as des beaux yeux*) (p. 144).

They also served as distractor items for the 16 grammatical gender targets.

The test was in multiple-choice format. Participants needed to read two phrases per question and circle which phrase was grammatically correct. To discourage guessing, participants could circle a third option, which stated "*Je ne sais pas*". For example, one question from the pretest was: a) *Une habitation* b) *Un habitation* c) *Je ne sais pas*.

Of the sixteen target items, eight focused on concord between the masculine indefinite determiner *un* and noun, while an additional eight focused on concord between the feminine indefinite determiner *une* and noun. If participants scored higher than 50% on either the 16 target items or on the 34 proficiency items, they were not included in the study since they would be considered too proficient.

Exposure Task #1: Crossword Puzzle

The crossword puzzle exposure task required participants to use a crossword key (see Appendix D) while completing the crossword puzzle (see Appendix E). The crossword puzzle was an adapted version of the crossword puzzle used in Bell (2008) and Bell and Collins (2009). None of the 20 nouns on the crossword puzzle was encountered before on the pre-test and would eventually be seen again as familiar items on the post-test. The 20 nouns on the crossword puzzle consisted of ten masculine nouns ending in *-eau* and ten feminine nouns ending in *-tion*. The crossword puzzle in Bell's study contained only 16 items with items endings in *-eau* (masc.) and *-elle* (fem.). The reason for increasing the amount of items on the present crossword puzzle was to facilitate more exposure to the noun endings under investigation.

A crossword puzzle was chosen because it involved problem solving (Leow, 1997, 2000), and it was an efficient way for participants to repeat the same morphological patterns for each of the 20 nouns included. This is an effective means of exposure because it promotes implicit learning. There was no explicit instruction of the grammatical gender patterns before the activities began, so learners were expected to learn the determiner and suffix agreement on French nouns through repeated exposure on the crossword puzzle. For example, if participants were to make a mistake, the process of providing the correct article and noun would be repeated and, hopefully, reinforced as a learning process. The clues were written in French, but they were simple enough to ensure that it could be completed by the participants. Therefore, similar words in morphology to French were included for each clue to trigger the appropriate answer from the key. For example, the clue "*un sport aquatique*" was simple enough to understand for

the participants to answer “*la natation*” from the answer key with the appropriate picture (see Appendix E).

Prior to completing the crossword, participants listened to a recording of a native French speaker reciting the nouns in the order in which they were presented on the answer key. Participants read along silently as she spoke. An independent measure was not considered to examine the efficacy of the phonological component, but it was considered to be an extra means of exposure to facilitate learning of gender patterns since input is a significant component of learning in second language acquisition (SLA) (Gass, 1997). This step was not done in Bell (2008) but was considered to help facilitate the learning of gender agreement based on the association between morphology and phonological cues.

Distractor Task

The distractor task (see Appendix F) was added in order to take the focus off of the target feature. If the second exposure task (see below) was administered directly after the crossword task, then participants might have realized which target features were under examination. Also, memory of gender concord between masculine and feminine would be too immediate. The distractor task was simple. Participants needed to read a simple French sentence with two corresponding pictures above the sentence and circle which picture corresponded with the sentence. The sentences had easy to understand words for all participants, such as “*la voiture est **bleue***” and “*elle est **triste***”. Accuracy on the distractor task was not taken into consideration for the purpose of this study.

Exposure Task #2: Picture Matching

The purpose of this task was two-fold (see Appendix G). It was designed to increase the exposure of reliable noun endings from the crossword task, and it was also designed to demonstrate if any recent learning had occurred after task #1. This activity required them to choose a noun from a jumbled list (without the provided article), find the correct picture that corresponded with the noun, and write in the noun including the article they thought went with the noun they chose. For example, if participants chose “*gâteau*” from the jumbled clues, they would then need to find the picture of the cake, write the word “*gâteau*” underneath and then decide whether to write *le* or *la* in front of it. The results of this activity provide an indication if the gender patterns were learned from the first crossword activity. Therefore, in the present study, beginner participants were exposed to article-noun sequences first then to nouns only on the second exposure task which is considered to facilitate learning of grammatical gender patterns for adult learners (Arnon & Ramscar, 2002).

Feedback Questionnaire

The feedback questionnaire (see Appendix H) was designed to elicit responses from the participants regarding the nature of the study. Two questions were asked: “*Do you feel like you learned anything about French grammar after doing the three picture activities? Please be as specific as possible.*” followed by, “*What did you think about the activities in general?*” Responses to the questions indicated if the participants were consciously aware of the target features under investigation. More specifically, the nature of the responses would be compared across both language groups, to see whether there

was a difference between the two groups in terms of their self-reported noticing of gender patterns across activities. The second question was designed to investigate if the participants found the activities on par with their proficiency level and if they were easy to understand. Furthermore, including a second question increased their chances to reflect on the activities and perhaps mention something about gender and noun ending cues.

Post-Test

The post-test was adapted from Bell (2008). The post-test in Bell's study contained 82 items: 16 nouns ending in *-eau*, 16 nouns ending in *-elle*, and 50 distractors. The post-test in the present study (see Appendix I) consisted of 58 items in total. Twenty-four items were target items, while 34 items were distractor items. Of the 24 target items, 12 were novel items. Of the novel items, six ended in the masculine *-eau* suffix while the other 6 ended in the feminine *-tion* suffix. The twelve novel items were considered as such because the participants were not exposed to them on either of the exposure tasks. Eleven of the novel items were taken from the pre-test, with the addition of "*Une addiction*" to complete the feminine nouns. The remaining 12 items were chosen from the items encountered during the exposure tasks, balanced between nouns ending with the masculine *-eau* and feminine *-tion* suffixes.

The inclusion of both familiar and novel items allows for the comparison of item (memory for items encountered during exposure) and system (generalization of patterns) learning. Item learning can be defined as the learning of exemplars that the learner has already come across, while system learning transfers this knowledge to experience with novel items (Bell & Collins, 2009). Several studies have examined item and system

learning as a function of the type of input and in some cases the feedback that learners have received (Bell & Collins, 2009; Harley, 1998; Lyster, 2004; Lyster & Izqueirdo, 2009; Rosa & Leow, 2004). The performance of the Spanish and English groups was to be compared on both the familiar and the novel items to investigate whether system learning took place, and if so, to see whether those from the gendered language demonstrate superior learning.

Procedure

English and Spanish participants were tested in Toronto individually or in small groups at convenient locations. All English and Spanish participants finished the activities within approximately 60 minutes. Table 3 describes the sequence of activities and how long each took to complete.

Table 3

Procedure

Steps	Approximate Time
1. Consent form+questionnaire	10 minutes
2. Pre-test	10 minutes
3. Listening to audio recording of randomized crossword answers	1 minute
4. Exposure Task#1: Crossword puzzle	10- 15 minutes
5. Distractor Task	2 minutes
6. Treatment Task#2: Picture Matching	10- 15 minutes
7. Feedback Questionnaire	5 minutes
8. Post Test	10 minutes
TOTAL	60-70 minutes

CHAPTER 4: ANALYSES AND FINDINGS

The purpose of this chapter is to provide a detailed overview of how the quantitative and qualitative data were analyzed to address the research questions. Before proceeding to the analyses, it was first important to ensure that all participants met the criteria for participation. This first section describes this process. An overview of how the pre-test was scored for distractor items and target items will be discussed, as well as how either language group performed on the post-test on novel and familiar nouns on the post-test. Finally, the responses to the feedback questionnaire will be discussed in light of the research questions. The qualitative analysis will determine if the Spanish-speaking participants are more likely to demonstrate that the study was about paying attention to noun-ending cues for gender agreement over the English-speaking participants.

Participant Criteria

The first step was to ensure that all participants met the criteria established for participating in the study. As mentioned in the previous chapter, participants needed to score 50% or less on the distractor items and 50% or less on the target items (masculine – *eau* & feminine – *tion*). These criteria resulted in the elimination of 11 participants from the study (6 English-speakers and 5 Spanish-speakers). Amongst the English-speaking participants, only 12 were used out of an original 18. The English-speaking participants' scores ranged from 12% on distractor and target items to 58%, respectively. Five participants scored above 50% on the distractor items, with one out of the five scoring over 50% on both distractor items and masculine items. They were not included in the study. The sixth participant scored 0% on the pre-test and was not included because s/he

did not have enough knowledge of French to be able to perform the tasks. Amongst the Spanish participants, the data from five of the twenty-one participants tested were not retained. Only 3 Spanish-speaking participants scored over 50% on the distractor items, but 11 of the 21 participants scored between 62% - 100% on feminine items. As such, only masculine items were considered for inclusion for both language groups, and only 2 Spanish participants scored above 50% (75% and 87.50) on masculine items, which excluded them from the study.

In previous research on the learning of grammatical gender in French, decisions have also been made to disregard one class of nouns based on participants' performance. Bell (2008) found that adult participants over-performed on feminine items ending in *-elle* as opposed to masculine items ending in *-eau*. In the same study, three participants overgeneralized femininity to all nouns. Bell argued that the suffix *-elle* is highly associated with feminine words in French that are easily recognizable for English speakers. For the Spanish-speaking population in the present study, the feminine suffix *-tion* had a similar effect. Since the suffix *-ción* has the same feminine equivalent to the French suffix *-tion*, many Spanish-speaking participants scored over 50% on feminine items and sometimes performed at ceiling.

Pre-Test Results

Two independent sample t-tests were used to analyze the pre-test scores of the English and Spanish groups. To ensure that the groups were equivalent in terms of overall knowledge of French and with the assignment of masculine grammatical gender to words ending in *-eau*, both groups needed to have similar limited knowledge of French and

masculine grammatical gender in French. To maximize the probability of detecting differences between groups, the alpha level was set at $>.10$. The analyses reveal no significant differences between the groups on either of the two pre-test measures: the proficiency test, $t(26) = .672, p = .507$; or the masculine gender items, $t(26) = 1.588, p = .124$. Thus, both Spanish and English participant groups had similarly limited knowledge of French and of masculine gender in French. Tables 4 and 5 demonstrate the pre-test scores, standard deviation, and t-test equality of means.

Table 4

Pre-test mean scores and standard deviation

Pre-test items	Language	<i>N</i>	<i>Mean</i>	<i>SD</i>
Pre-test distractors total% (score/34)	English	12	32.35	15.36
	Spanish	16	35.66	10.73
Pre-test M% (score/8)	English	12	6.25	12.50
	Spanish	16	14.84	15.28

Table 5

T-test for equality of means

Pre-test items	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Pre-test distractors total% (score/34)	-.672	26	.507
Pre M% (score/8)	-1.588	26	.124

Post-Test Results

To understand the post-test results, the research questions and hypotheses of the present study need to be re-visited:

RQ#1): Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in learning the grammatical gender of the nouns they were exposed to?

RQ#2): Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in assigning grammatical gender to novel nouns?

H: None

The first analysis examined whether Anglophones and Hispanophones alone were different on the novel vs. familiar masculine nouns on the Post-test. Two paired-sample *t*-tests, with the alpha set at $< .05$ (adjusted for multiple comparisons) indicated that both language groups were significantly better on the familiar nouns vs. the novel nouns: English group, $t(11) = 3.432, p = .006$; Spanish group, $t(15) = 4.49, p < .001$. Tables 6-9 indicate the mean scores, standard deviation, and paired samples test of both English and Spanish groups. Given these findings, it was then possible to further analyze both language groups in relation to whether or not the treatment had any significant effect on their performance on both familiar and novel nouns and to test if there was any significant difference between language groups over time.

Table 6

English Group: Post-test Familiar (F) and Novel (N) Scores

Post-test items	<i>Mean</i>	<i>N</i>	<i>SD</i>
Post-test FM% (score/6)	59.71	12	35.85
Post-test NM%(score/6)	29.16	12	37.01

Table 7

English Group: Paired Samples Test (Significance Between Scores)

Post-test items	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Post-test FM% (score/6)	3.432	11	.006
Post-test NM% (score/6)			

Table 8

Spanish Group: Post-test Familiar (F) and Novel scores (N)

Post-test items	<i>Mean</i>	<i>N</i>	<i>SD</i>
Post-test FM% (score/6)	58.33	16	34.42
Post-test NM%(score/6)	19.79	16	25.25

Table 9

Spanish group: Paired Samples Test (Significance Between Scores)

Post-test items	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Post-test FM% (score/6)	4.49	15	.001
Post-test NM% (score/6)			

Finally, to determine whether there was a difference between Spanish and English groups on the two sets of items (old masculine nouns and new masculine nouns) from pre to post test, two separate ANOVAs were run, with an alpha level of $<.05$ adjusted to account for multiple comparisons. The within subjects variable was TIME, and the between subjects variable was LANGUAGE, with effects for time, language, and the interaction between time and language tested.

The results for the familiar masculine nouns showed a significant effect for time $F(1, 26) = 49.569, p < .001$, with a large effect size ($\eta^2 = .656$). There was no significant difference for language $F(1, 26) = .229, p = .636$, and there was also no interaction between time and language $F(1, 26) = .525, p = .475$.

The results for the novel masculine nouns also showed a significant effect for time $F(1, 26) = 7.265, p = .012$, with a small effect size ($\eta^2 = .218$). There was no significant difference for language $F(1, 26) = .003, p = .959$. There was also no interaction between time and language $F(1, 26) = 3.021, p = .104$. Tables 10 – 11 demonstrate Time and Time X Language for familiar and novel nouns:

Table 10

Tests of Within-Subjects Effects – Familiar Nouns

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial ETA Squared
TIME	32231.997	1	32231.997	49.569	.000	.656
TIME *	341.459	1	341.459	.525	.475	.020
Language Error (TIME)	16906.469	26	650.249			

Test of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial ETA Squared
Language	178.128	1	178.128	.229	.636	.009
Error	20240.261	26	778.472			

Table 11

Test of Within-Subjects Effects – Novel Nouns

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial ETA Squared
TIME	2661.744	1	2661.744	7.265	.012	.218
TIME *	1106.798	1	1106.798	3.021	.094	.104
Language Error (TIME)	9526.423	26	366.401			

Test of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial ETA Squared
Language	2.084	1	2.084	.003	.959	.001
Error	20333.881	26	782.072			

Summary of Statistical Tests

Two independent sample t-tests were run to see whether the two groups were different on the two dependent variables at the beginning. Because the p values were both above the .10 cut-off, both the English and Spanish-speaking groups appeared to be similar on these dependent variables before they received any treatment. In other words, both groups were of equal proficiency on the distractor items and masculine items on the pre-test, with no observable advantage for the Spanish-speaking group.

Paired-sample t-tests were used to examine if Anglophones and Hispanophones individually were different on the familiar vs. novel masculine nouns on the post-test. The results indicate that both language groups were significantly better with the familiar nouns than with the novel nouns.

The two ANOVAs determined that only Time was significant, for both familiar and novel nouns. There was thus both item and system learning, although the much larger effect sizes suggest that the learning of familiar items was more robust. The test of Time indicated that the treatment improved both groups' learning of familiar and novel nouns. The tests of Language and the interaction between Time x Language, however, showed that there were no differences on improvement on the familiar and novel nouns that could be attributed to language. Both English and Spanish-speaking groups' post-test scores on familiar masculine nouns show significant improvement. Some learning was also demonstrated on novel masculine nouns by both groups, but much less, with means under 30%. Both groups behaved similarly in the learning of masculine gender agreement in French, with no apparent advantage for the Spanish-speaking participants.

In reference to the research questions, the data analysis demonstrated that at the beginner stages, Spanish-speaking participants do not demonstrate an advantage over English-speaking participants on masculine items, and that Spanish-speaking participants do not demonstrate superior learning on novel nouns. In fact, both Spanish and English participants demonstrated equal ability on item learning over system learning.

Exposure Task #2

The second exposure task required the participants to supply the correct vocabulary item and corresponding article to indicate agreement when provided with a picture. For example, if the participants saw a picture of a boat (*le bateau*), they would have to write the word *bateau* under the picture, then decide which article to supply in front of it.

Table 12 indicates both groups' scores for the correct assignment of articles and nouns. In this case, if the participants supplied the incorrect vocabulary item, but supplied the correct article, then gender agreement would still be considered as correct.

Table 12

Summary of Exposure Task #2

Feature average	English	Spanish
Article average	72%	86%
Vocabulary average	100%	92%

Based on the averages in the previous chart, the English group showed much greater success at remembering the vocabulary item than the correct gender of the item. The scores of the Spanish group, on the other hand, were much closer; when they recalled a vocabulary item, they tended to also recall its gender.

Qualitative Analysis of Feedback Responses

In addition to the quantitative measures, there was also a question on the feedback questionnaire at the end of the study that asked participants : *“Do you feel like you learned anything about French grammar after doing the three picture activities? Please be as specific a possible.”* One of the criteria for participation in the study was no reported awareness of noun endings as cues for grammatical gender (the pre-test question). The responses of the Spanish and English-speaking participants to the feedback question following the treatment were compared to determine whether Spanish-speaking participants reported more awareness of the noun endings as cues to grammatical gender.

One participant from the English-speaking group answered the feedback questionnaire indicating pattern recognition for agreement.

A: I was curious to see potential patterns about which words could predictably be masculine or feminine / words ending in “eau” are all one gender? Words ending in “tion” are all one gender? “Eau” → masculine? “Tion” → feminine?

No Spanish-speaking participant reported any awareness of noun endings as cues to grammatical gender. Therefore, there was no more noticing of grammatical gender in French by Spanish-speaking participants over English-speaking participants.

Other findings remain insightful judging from the responses within the qualitative measures. Most English and Spanish participants indicated that the learning of vocabulary was, perhaps, the main goal of the exposure tasks and that the tasks were “fun” and “easy”. Table 13 describes the nature of the types of answers provided by both English and Spanish groups. Sample answers to the feedback questionnaire from different

participants are provided below. Their answers were counted then grouped according to the most consistent responses. Responses were also counted per participant if s/he mentioned “vocabulary”, “easy/fun”, and “grammatical gender” on the same feedback questionnaire.

Table 13

Feedback Questionnaire Responses

Q#1: Do you feel like you learned anything about French grammar after doing the three picture activities? Please be as specific as possible.

*I learned that **gender** is difficult to memorize.*

*I think reading the words helped me to remember the **gender**.*

*It helped with **vocabulary**.*

*I think that I learned some new **words**.*

Q#2: What did you think about the activities in general?

*The activities in general are **not very difficult** to do.*

*The activities were **simple** and **very easy** to understand.*

*It's a good **basic** knowledge of French language. It's **fun**!*

Fun!

Table 14

Summary of Feedback Questionnaire

Group	Vocabulary	Easy/Fun	Grammatical gender
English (n=12)	5 (42%)	5	11 (92%)
Spanish (n=16)	11 (69%)	11	7 (44%)

Although both groups reported learning grammatical gender and vocabulary from the tasks, the English-speaking participants reported grammatical gender much higher than vocabulary, while the Spanish-speaking participants reported vocabulary more than grammatical gender.

CHAPTER 5: DISCUSSION

The purpose of this chapter is to interpret the quantitative and qualitative findings in light of the two research questions in the present study and also through theoretical perspectives of second language acquisition.

Research Question #1

The first research question of the present study was: Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in learning the grammatical gender of the nouns they were exposed to?

The answer to this question varies according to the participants' performance on masculine and feminine items. The Spanish-speaking participants did not show a demonstrable advantage over the English participants in learning *masculine* definite determiner and noun agreement in French L2 on previously encountered nouns. However, Spanish-speaking participants demonstrated an advantage on feminine definite determiner and noun agreement on the pre-test and on previously encountered feminine nouns on the post-test. The difference in performance on masculine and feminine nouns could be attributed to the fact that the masculine suffix *-eau* in French does not have a morphological equivalent to a masculine suffix in Spanish.

In this study, Spanish-speaking participants transferred their knowledge of Spanish feminine nouns onto feminine nouns in French because of the similar morphology between the noun endings, *-tion* and *-ción*, in both languages. Therefore, the Spanish-speaking participants had a clear advantage over the English-speaking participants only on their performance on feminine items on the pre-test. Without any explicit instruction of noun endings in French, the Spanish-speaking participants were able answer the feminine items correctly on the pre-test by simply looking at the

similarities between the feminine suffixes between both languages (e.g., *une organisation/ una organización*).

The only area of investigation within this study that demonstrated observable differences between English and Spanish-speaking participants was on the second exposure task and the feedback questionnaire. According to the results of the second exposure task, Spanish-speaking participants had an average of 86% on gender agreement with a 92% performance on vocabulary, while the English-speaking participants had an average of 72% on agreement and 100% on vocabulary. The article and noun agreement average for the Spanish-speakers could be higher due to their sensitivity to feminine gender, but it is apparent that they were more sensitive to the operations of gender agreement over vocabulary retention since there was evidence of assigning the incorrect piece of vocabulary but indicating correct gender agreement. The English-speaking participants, on the other hand, demonstrated 100% accuracy on vocabulary items on the exposure task, but they were less accurate than the Spanish-speaking group on supplying the correct article for agreement.

Somewhat surprisingly, however, the English-speaking participants reported more awareness of learning gender than vocabulary on the feedback questionnaire while the Spanish-speaking participants reported more awareness of learning vocabulary than grammatical gender. The contradiction between the picture-matching activity and the feedback questionnaire could be that for the English-speaking participants, gender is a recognized as a challenging feature to learn in French, one that appears arbitrary (Bell, 2008). For the Spanish-speaking participants, there may have been less anxiety surrounding the learning of gender agreement, and it also may be perceived as being part of what one learns when learning vocabulary, so it was the words themselves that stood

out more for them.

Research Question #2

The second research question of the present study was: Will beginner Spanish-speaking learners of French have an advantage over beginner English-speaking participants in assigning grammatical gender to novel nouns?

Overall, the Spanish-speaking participants did not show a demonstrable advantage over the English-speaking participants on learning novel nouns over familiar nouns; therefore, no advantage for *system* learning over *item* learning was apparent. In fact, both English and Spanish groups did not perform strongly on novel items and demonstrated only some system learning.

In Bell (2008), low-level English-speaking participants were tested to investigate if they were able to apply their knowledge of masculine French nouns after completing an exposure task to masculine French nouns encountered on the post-test. The participants significantly improved in their ability to assign masculine gender to words they had encountered during the exposure task, but not to words that they had only encountered in the pre-test (p. 1). Bell also wanted to examine if the level of awareness (aware and unaware) had any effect on the ability to system learn French nouns encountered on the pre-test. The study showed no effect of awareness on the learning of novel nouns. In contrast to Bell, the present study considered beginner Spanish-speaking participants along with English-speaking participants to see if the Spanish-speaking participants would have an advantage when learning French nouns. In other words, since gender was proven to be difficult to learn for English-speaking beginners in Bell's study, this research study aimed to investigate if gender would be difficult for beginners who have

Spanish as their native language.

In the present study, beginner-level learners demonstrated the ability to recall noun agreement on words that they had been exposed to. They also demonstrated the ability to demonstrate previously learned knowledge to novel nouns with the same reliable gender cues; i.e. nouns they had not encountered during the exposure tasks, but to a much lesser extent. What is not known, however, is if longer exposure to the gender features in the study would lead to more system learning as demonstrated in Lyster (2004) and Lyster & Izquierdo (2009). Finally, when beginners are exposed to an unfamiliar grammatical pattern in the input, they will immediately rely on L1 morphological similarities for assistance. This was evident in the performance of feminine nouns by Spanish-speaking participants on the pre-test and post-test.

Interpretation of the Results

The goal of this research was to investigate whether beginner Spanish-speaking learners of French have an advantage over beginner English-speaking learners learning French grammatical gender at the definite determiner and noun level. Conflicting findings in the research did not allow for a formulation of hypotheses. The advantage for Spanish-speaking participants with feminine morphology was evident during the pre-test of the study. As such, transfer of masculine grammatical gender from Spanish L1 was left for consideration only after the participants completed the treatment activities for any advantage to be apparent over the English-speaking participants.

The results of the present study demonstrate that the presence of gender in Spanish L1 did play a facilitative role in at least recognizing feminine gender in French

when the noun gender matched the learners' L1. However, it did not facilitate the learning of a noun ending with no counterpart in the L2. The Spanish-speaking participants showed no advantage in learning familiar masculine nouns after the exposure tasks and performed the same in terms of learning novel masculine nouns as the English participants on the post-test. The results of this study demonstrate that the learning of novel grammatical gender cues in a second language may be of equal difficulty for beginners regardless of the status of grammatical gender in their L1. However, an important finding to consider in the present study is that the Spanish-speaking participants transferred their knowledge of feminine gender from the L1 to feminine nouns in French L2 on the pre-test without any explicit instruction prior, which means that their advantage with feminine nouns was not due to learning. The transfer of feminine noun morphology from Spanish was evident because of their high performance on French feminine nouns on the pre-test where participants scored often at ceiling.

Various studies have indicated that learning grammatical gender in French for *English*-speaking participants is a difficult task (Bell & Collins, 2009; Gess & Herschensohn, 2001; Guillelmon & Grojean, 2001; Harley, 1998; Holmes & de la Battie, 1999; Lyster, 2004; Lyster & Izqueirdo, 2009; Vuchic, 1993), but this study showed that in the initial stages, the challenge extends to Spanish speakers who have grammatical gender in their L1. These findings are consistent with White et al. (2004) who found that the presence of gender in the L1 did not play a facilitative role in the acquisition of gender in an L2. In this case, English and French-speaking participants across proficiency levels were able to demonstrate equal knowledge of gender agreement in Spanish. They are in contrast to the findings of Sabourin et al. (2006) who found that the status of

gender in the L1 differentiated among the advanced speakers of Dutch L2.

The L1 may play a key role only after a certain period of learning has been accomplished, that is once learners have been exposed to enough of the L2 to begin to notice “crucial similarities” (Wode, 1978, p. 116). This delayed effect of L1 influence has been observed in the learning of other features of languages, such as tense-aspect, with both facilitative results, as with the learning of perfective/imperfective in French by Spanish speakers (Izquierdo & Collins, 2008) and hindering effects, such as the inappropriate use of the present perfect by francophone learners of English (Collins, 2002; Izquierdo & Collins, 2008). The present study, however, informs the learnability of gender items only at the very beginning of the learning process of learners; whether Spanish speakers would have an advantage later on in the process remains an empirical question. The qualitative findings certainly point to some differences in how they approached the learning of gender in French (greater association between gender and vocabulary than the English-speaking participants).

Because this study was an examination of beginner learners, it is possible to consider the findings from the perspective of the initial state of SLA. The term *initial state* is variously used to mean the kind of unconscious linguistic knowledge that the L2 learner starts out with in advance of the L2 input and/or to refer to characteristics of the earliest grammar. By extension, the proposal is that “the L1 grammar determines how the learner approaches L2 data” (White, 2003, p. 58). In the present study, the *initial state* for English-speaking participants is – *gender*, meaning that the absence of gender categories similar to French is how English learners would approach L2 French input. Conversely, the *initial state* of Spanish-speaking learners is + *gender*, since Spanish contains gender

in the L1 manifested in similar ways to French in the L2. Features that exhibit + *gender* could play a facilitative role in learning French gender due to transfer.

What is observed in the present data is that + *gender* features of Spanish-speaking learners in the initial state facilitate *surface* transfer from the L1 on feminine items only. Sabourin et al. (2006) defines *surface transfer* as “the transfer of surface features from one language to another. This might include such things as the transfer of surface word order between languages or the transfer of morphologically similar gender marking” (p. 3). What was observed is that Spanish-speaking participants had an advantage in recognizing feminine items (la + *tion/ción*) on the pre-test because the items were morphologically similar to Spanish. This is revealing since the Spanish-speaking participants were beginners with very low-level knowledge of grammar and/or vocabulary in French. According to Sabourin et al., “L2 acquisition of grammatical gender is affected more by the morphological similarity of gender marking in the L1 and L2 than by the presence of abstract syntactic gender features in the L1” (p. 1). This is further explained by what is known as *deep transfer*. Sabourin (2006) defines the notion of *deep transfer* as “the transfer of abstract syntactic categories that exist in both languages, but which do not have similar morphological exponents, e.g. the transfer by Romance speakers of their gender category to the learning of the Dutch gender system” (p. 3).

The notion of *deep transfer* cannot be considered for analysis in the present study because it did not look at gender through the aspects of syntactic categories for agreement, such as gender agreement across a noun phrase, and it did not consider the grammatical gender system of French as a whole throughout other features. The present study looked at gender agreement in French as a grammatical category at the determiner and noun

level only. Sabourin et al. (2006) consider the role of *surface* transfer crucial for examination in the learning process of L1s because they observed that the aspect of transfer facilitates the learning of L2 gender based on how morphologically and grammatically similar gender manifests itself in the L1. The present study can account for only Spanish morphology, but it would be insightful to consider the morphology of another L1, such as Portuguese, where the feminine suffix *-çã* would indicate how much transfer is evident in the learning of the French feminine suffix of *-tion* as they are both feminine suffixes for similar nouns.

CHAPTER 6: CONCLUSION

The present study found that Spanish-speaking participants demonstrated no demonstrable advantage over English-speaking participants in learning the grammatical gender of masculine nouns with a reliable cue for indicating gender. It did show that Spanish speakers approached the feminine nouns by transferring feminine morphology from the L1. They were also more likely to report “vocabulary” as the point of the study over “gender” since gender could have been less marked as a feature to learn. In this chapter some of the limitations of the study will be discussed, including participant selection, nature of the materials, and target features used. It will describe how this study contributes to the field of SLA, and make suggestions for future research.

Challenges and Limitations

This study is limited in that only a small number of participants were considered (n=28). A larger number of beginner English and Spanish-speaking participants would guarantee more generalizable results. Furthermore, the participants were drawn from different contexts. If they had all been from the same French class, for example, then it might have been possible to have more control over the type and amount of previous exposure they had to French.

Although the pre-test worked in equating the two groups, a more comprehensive test should be designed to test a larger variety of features that would be appropriate for both Anglophones and Hispanophones. The pre-test used in Bell (2008) was designed with grammatical features appropriate for L1 English speakers in mind. Due to the effects of transfer from the L1, Spanish speakers scored much better than the English speakers

on a few of the proficiency test items on the pre-test. For example, “Un cellulaire de Rogers” was answered correctly by all Spanish participants except for one; English-speaking participants scored lower on this question. This could be attributed to syntactical similarities between French and Spanish.

Finding a useable suffix for feminine agreement in this study was particularly challenging. Most suffixes considered contained nouns that would be either considerably difficult for beginner learners or too obviously “feminine” (see chp. 1). For example, the feminine suffix *-ette* was already put into consideration as an alternative to *-elle* in Bell (2008). Initial pilot-testing began, but all participants overgeneralized *-ette* to the feminine, so the feminine suffix was changed to *-tion*. Furthermore, because definite articles were used on the first exposure task (see Appendix E), familiar items needed to be considered carefully since some indefinite articles did not agree with abstract nouns, for example *un* meditation and *un* natation, etc.

Finding participants with the appropriate profile for the study took a considerable amount of time. Many of the participants tested for the study self-identified as English speakers, but revealed in the questionnaire that they spoke a considerable amount of a second or heritage language and therefore could not be included. In other words, monolingual Anglophones were difficult to find in Toronto. The reason for these strict criteria is that a second language, especially with grammatical gender, could act as a considerable confound for the results of the present study. Hispanophones were easier to find. They all spoke some English (enough English to understand what was required from them for the study), but they could have benefited from Spanish instruction to balance the conditions. Another limitation is that the Spanish-speaking participants could have relied

on their L2 (English) in how they approached the L3 (French), which means that they may not have taken full advantage of the facilitative effects from the L1 (Spanish) (Jarvis & Pavlenko, 2008).

Some studies have examined the acquisition of grammatical gender in French by Anglophones in the beginner and advanced stages with results indicating gender being problematic (Bell & Collins, 2009; Gess & Herschensohn, 2001; Guillelmon & Grojean, 2001; Harley, 1998; Holmes & de la Battie, 1999; Lyster, 2004; Lyster & Izqueirdo, 2009; Vuchic, 1993;). However, longitudinal studies (Harley, 1998; Lyster, 2004; Lyster & Izqueirdo, 2009) demonstrate that learning of gender over time can occur with FFI and feedback. In both cases Lyster (2004) and Lyster & Izqueirdo (2009) indicated learning for novel nouns, while Harley (1998) did not. In the present study, the length of exposure to the target items might have been too short for system learning to take place. Despite adding a phonological component, more crossword items, and a second treatment task, system learning would have probably been observable if the exposure has been spread over several days or weeks. Lyster and Lyster & Izqueirdo were able to demonstrate learning of low frequency exemplars of French nouns by their participants because they had a significant amount of exposure to the target items. For example, 9 hours during a 5-week period was provided to the participants in Lyster's study, and 3 hours during a 2-week period for the Lyster and Izquierdo's study.

Contributions and Implications for Further Research

This study was designed to address the learnability of grammatical features in another language that are either present or not present in the first language. The study is

unique because it demonstrates how *low-level beginners* from two different languages behave when learning grammatical gender in another language. Many studies have examined the learnability of French grammatical gender by Anglophones (Bell & Collins, 2009; Gess & Herschensohn, 2001; Guillelmon & Grojean, 2001; Harley, 1998; Holmes & de la Battie, 1999; Lyster, 2004; Lyster & Izqueirido, 2009; Vuchic, 1993), but have not compared Anglophones with speakers of a gendered language (Spanish) in the same study.

The present study affirms the notion that *surface* transfer plays a facilitative role in learning grammatical features in an L2 (Sabourin, et al, 2006). Whether *deep* transfer occurs was not investigated, and in any event might only be evident in learners who have had significantly more exposure to the L2. Therefore, it would be critical to examine if Spanish speakers, for example, will eventually out-perform English speakers on masculine agreement in their longitudinal development in French in a study that included measures that examine both gender assignment (as the present study did) and gender agreement across features such as adjectives (which the present study did not).

More language groups within a similar design should be considered for future research. For example, to confirm the results that the status of gender in the first language may not be advantageous in learning gender in a second language in the beginner stages, other languages with and without grammatical gender would be important to consider. For example, including Farsi and Armenian would make the results more generalizable for non-gendered languages, while Italian and Portuguese would make the results more generalizable for gendered languages. Data was collected from Brazilian Portuguese speakers of French, but their results were not retained due to low proficiency. It would

also be more comprehensive to investigate the facilitative effects of L1s that manifest gender in different ways, such as at the adjective and noun level found in Baltic and Slavic languages.

As the present study was relatively short (60 – 70 minutes, including the language learning measures) the pedagogical implications of the findings are limited. However, the results demonstrated that exposure to reliable noun ending cues did help learners learn the gender of the nouns they were exposed to, at least in the short term. In other gender acquisition studies, repetitive exposure (3-5 weeks), form-focused instruction, and different forms of feedback, allowed beginner learners of French to be able to demonstrate significant improvement with gender agreement on written and oral tasks, especially with low-frequency unfamiliar lexical items (Lyster, 2004; Lyster & Izqueirdo, 2009). Perhaps the same could be demonstrated for the participants in the current study if they were given the appropriate amount of time and exposure to the target features to be able to generate rule-based knowledge of gender patterns in French L2.

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APPENDIX A – CONSENT FORM

CONSENT TO PARTICIPATE IN AN INVESTIGATION OF LANGUAGE LEARNING

This is to state that I agree to participate in a program of research being conducted by **Darius Karka**, supervised by Dr. Laura Collins of the Department of Education (TESL Centre) at Concordia University. Contact Information: E-mail: dariuskarka@hotmail.com, Phone: 416-892-1556. Research supervisor: Laura Collins. E-mail: laura.collins@concordia.ca

A. PURPOSE

I have been informed that the purpose of the research is to study the learning of French as a second language by native speakers of Portuguese and speakers of different languages.

B. PROCEDURES

I have been informed (1) that this study will take place at a location best suited for the participants, and (2) that I will be asked to participate in a one hour session on one day in which I will do a series of short written activities focused on learning French (e.g. completing a crossword puzzle in French, making judgements about the correctness of sentences in French), some in French, some in English.

C. RISKS AND BENEFITS

There are no risks involved in participating in this project. The project will help the researcher understand how to help students from different language backgrounds learn the French language through a series of activities. As a benefit, participants may improve their knowledge of French during the study.

D. CONDITIONS OF PARTICIPATION

I understand that I am free to withdraw my consent and discontinue my participation at anytime without negative consequences. I understand that my participation in this study is CONFIDENTIAL (i.e. the researcher will know but will not disclose my identity).

I understand that the data from this study may be published or presented at a scientific conference; data will be reported in a way that protects each participant's identity. I understand that if I request a copy of the final research report, one will be sent to me. I can make this request to Darius Karka during this interview or later in writing.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) _____

SIGNATURE _____

RESEARCHERS/S SIGNATURE **Darius Karka**

DATE _____

Would you like to be sent a copy of this consent form? _____ Yes _____ No

If at any time you have any questions about your rights as a research participant, please contact Adela Reid, Research Ethics and Compliance Officer, Concordia University, at (514) 848-2424 x7481 or by e-mail at areid@alcor.concordia.ca

APPENDIX B – INITIAL QUESTIONNAIRE

1) a. Age:

b. Sex: M / F (please circle)

d. Mother tongue:

e. Name:

f. How would you rate your proficiency of French on a scale from 1 to 10? (i.e. 3, 4.5, 7, 8.5, etc.)

2) Do you know any other languages? yes/no (please circle)

Please check off the proficiency level next to the languages below:

SPEAKING	beginner	intermediate	advanced	native speaker	
Spanish					
French					
Other (please specify):					

WRITING	beginner	intermediate	advanced	native
Spanish				
French				
Other (please specify):				

READING	beginner	intermediate	advanced	native
Spanish				
French				
Other (please specify):				

LISTENING	beginner	intermediate	advanced	native
Spanish				
French				
Other (please specify):				

3) Were you born or grew up in a Spanish speaking country but spoke another language other than Portuguese at home? yes/no (please circle)

If you chose “yes”, which language did you speak at home?

4) In which language were you educated in through

primary school? _____

high school? _____

5) Please indicate the approximate percentage of time you use Spanish in your every day life.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

In which contexts? Circle all that apply.

1. at home 2. at work 3. at school 4. with friends 5. tv/internet 6. Other (please explain):

6) Please indicate the approximate percentage of time you use French in your every day life.

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

In which contexts? Circle all that apply.

1. at home 2. at work 3. at school 4. with friends 5. tv/internet 6. Other (please explain):

7) Please indicate the approximate percentage of time you use any other languages you know in your everyday life. Please indicate the language:

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

In which contexts? Circle all that apply.

1. at home 2. at work 3. at school 4. with friends 5. tv/internet 6. Other (please explain):

8) Please indicate the approximate percentage of time you use any other languages you know in your everyday life. Please indicate the language:

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

In which contexts? Circle all that apply.

1. at home 2. at work 3. at school 4. with friends 5. tv/internet 6. Other (please explain):

9) Out of all languages that you speak, which do you speak the best? (please circle)

Spanish, English, French, Other (please name):

10) Below are five questions about different aspects of French. Please write your answer under each question in the space provided:

a. How do you decide whether to write/say “je suis” or “j’ai”?

b. How do you decide whether to write « je serais » or « je serai »?

c. How do you decide whether to use *le* or *la*?

d. How do you decide whether to write/say « je sais » or « je connais »?

e. How do you decide whether to write/say « je suis allé(e) » or « j’allais »?

APPENDIX C – PRE-TEST

Proficiency test #1

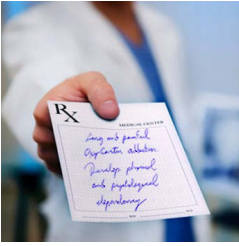
Participant name:

Underline the answer that you think is correct. If you don't know, underline "Je ne sais pas".

1. a) Je me lave mes mains b) Je me lave les mains c) Je ne sais pas
2. a) Une habitation b) Un habitation c) Je ne sais pas
3. a) J'en ai besoin b) J'y ai besoin c) Je ne sais pas
4. a) Une agraffeuse b) Une agrafeuse c) Je ne sais pas
5. a) Une panneau b) Un panneau c) Je ne sais pas
6. a) J'habite à Montréal b) J'habite en Montréal c) Je ne sais pas
7. a) J'ai 35 ans b) Je suis 35 ans c) Je ne sais pas
8. a) Un hallucination b) Une hallucination c) Je ne sais pas
9. a) Comment t'appelles tu ? b) Comment t'appeles tu ? c) Je ne sais pas
10. a) Une bouteille d'eau b) Une bouteille de l'eau c) Je ne sais pas
11. a) Une prise electric b) Une prise électrique c) Je ne sais pas
12. a) Les État-Unis b) Les États-Unis c) Je ne sais pas
13. a) J'apprend le français b) J'apprends le français c) Je ne sais pas
14. a) Une organisation b) Un organisation c) Je ne sais pas
15. a) Un crayon à papier b) Un crayon du papier c) Je ne sais pas
16. a) Un drapeau b) Une drapeau c) Je ne sais pas
17. a) Un dictionnaire b) Un dictionnaire c) Je ne sais pas
18. a) Une orange ligne b) Une ligne orange c) Je ne sais pas
19. a) Un station b) Une station c) Je ne sais pas
20. a) Je travaille à la SPCA b) Je travaille au SPCA c) Je ne sais pas
21. a) Venez me voir b) Venez voir moi c) Je ne sais pas
22. a) Un marteau b) Une marteau c) Je ne sais pas
23. a) Je voudrait te parler b) Je voudrais te parler c) Je ne sais pas

24. a) Un rideau b) Une rideau c) Je ne sais pas
25. a) Il n'a pas des soeurs b) Il n'a pas de soeurs c) Je ne sais pas
26. a) Un cellulaire de Rogers b) Un Rogers cellulaire c) Je ne sais pas
27. a) Un verre cassée b) Un verre cassé c) Je ne sais pas
28. a) Un membre de l'audience b) Un membre du audience c) Je ne sais pas
29. a) Je vient du Canada b) Je viens du Canada c) Je ne sais pas
30. a) Une cerveau b) Un cerveau c) Je ne sais pas
31. a) Parle-tu français ? b) Parles-tu français ? c) Je ne sais pas
32. a) J'ai beaucoup de l'argent b) J'ai beaucoup d'argent c) Je ne sais pas
33. a) Un prescription b) Une prescription c) Je ne sais pas
34. a) Le devoir est difficile b) Le devoir sont difficiles c) Je ne sais pas
35. a) J'ai acheté des pneux b) J'ai acheté des pneus c) Je ne sais pas
36. a) Un intersection b) Une intersection c) Je ne sais pas
37. a) Ma grand-mère b) Ma grande-mère c) Je ne sais pas
38. a) Une oiseau b) Un oiseau c) Je ne sais pas
39. a) Je ne me suis pas brossé les dents b) Je ne me suis pas brossé mes dents c) Je ne sais pas
40. a) Il fait belle b) Il fait beau c) Je ne sais pas
41. a) Une création b) Un création c) Je ne sais pas
42. a) Un mot croisés b) Un mot croisé c) Je ne sais pas
43. a) Un cadeau b) Une cadeau c) Je ne sais pas
44. a) Je voudrai un thé b) Je voudrait un thé c) Je ne sais pas
45. a) Un teste de français b) Un test de français c) Je ne sais pas
46. a) Une boîte de lait b) Une boîte du lait c) Je ne sais pas
47. a) Une agneau b) Un agneau c) Je ne sais pas
48. a) C'est chaud b) Ses chaud c) Je ne sais pas
49. a) J'ai des dans blanches b) J'ai des dents blanches c) Je ne sais pas
50. a) Un génération b) Une génération c) Je ne sais pas

APPENDIX D – CROSSWORD KEY



la prescription



le gâteau



la potion



le serpent



la natation



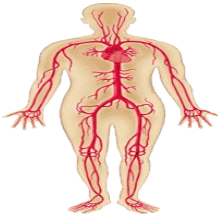
le chapeau



la méditation



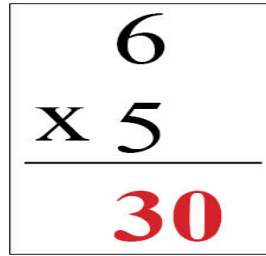
le couteau



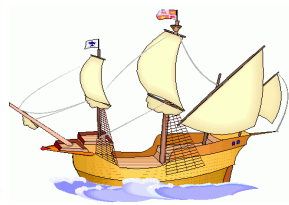
la circulation



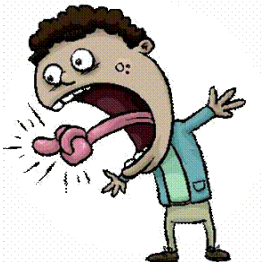
le manteau



la multiplication



le bateau



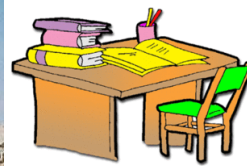
la prononciation



le château



la civilisation



le bureau



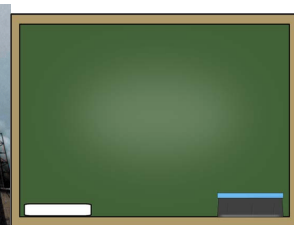
la station



le veau



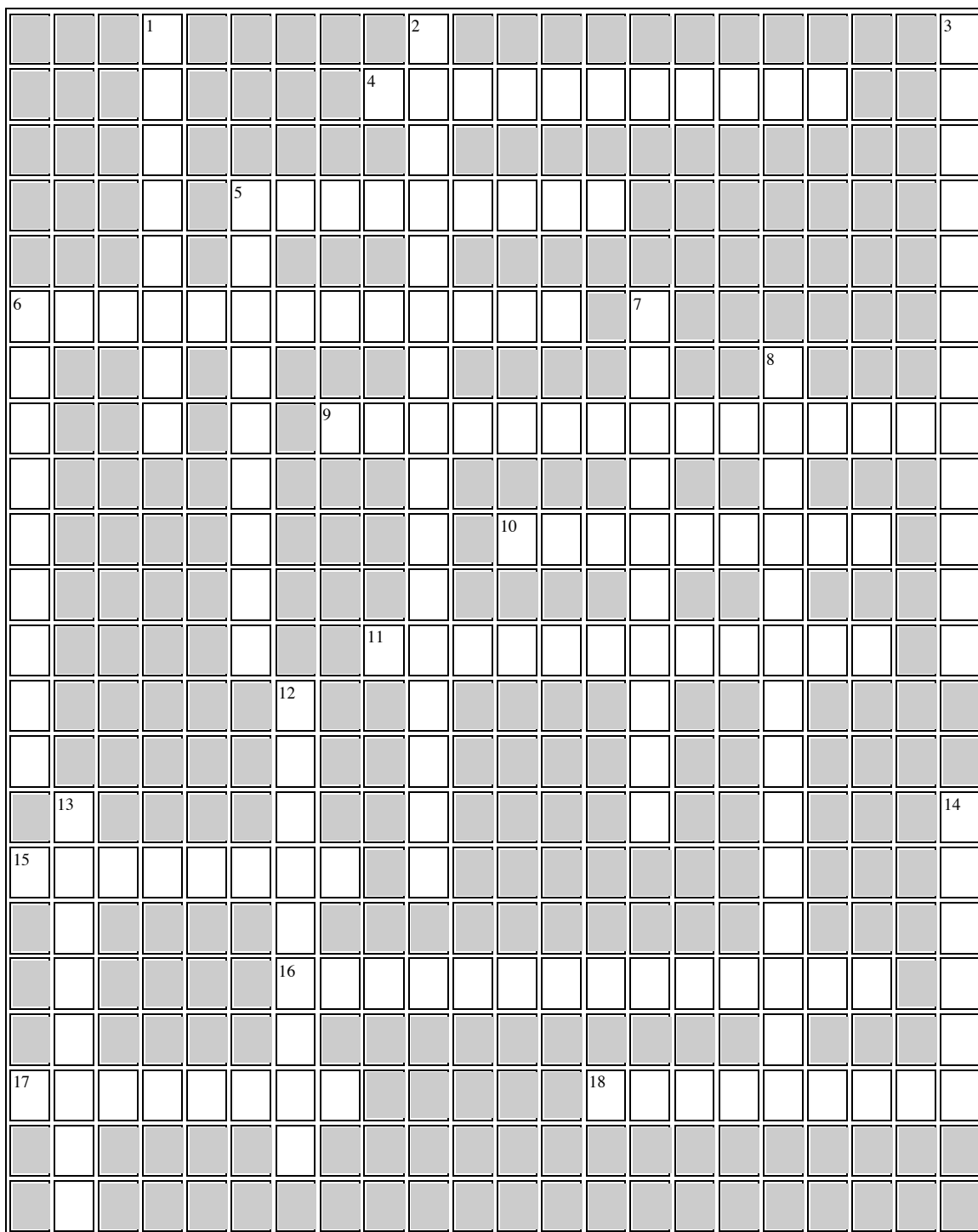
la pollution



le tableau

APPENDIX E – CROSSWORD PUZZLE

Mots Croisés



Horizontal

4. Un problème environnemental
5. L'utensile pour couper la viande
6. Le mouvement du sang
9. Difficile pour les étudiants de français
10. Point d'arrêt d'un train
11. Penser avec les yeux fermés
15. Un type de transport maritime
16. Administré par un médecin
17. Une table pour les étudiants
18. Quelque chose que vous pouvez porter pendant l'hiver

Vertical

1. Un liquide magique
2. Une formule mathématique
3. Un petit serpent
5. L'habitation des rois
6. Quelque chose que vous pouvez mettre sur votre tête
7. Un sport aquatique
8. L'ancienne Égypte
12. Sur le mure d'une classe
13. Un type de dessert
14. Le petit de la vache

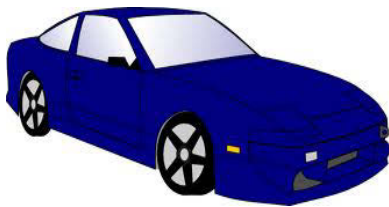
APPENDIX F – DISTRACTOR TASK

Instructions: Circle the picture that accurately corresponds to each sentence provided below each pair.

Example:



Il est grand



La voiture est bleue



Il mange



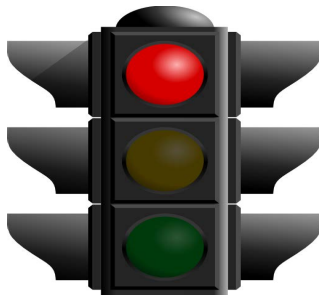
Il a chaud



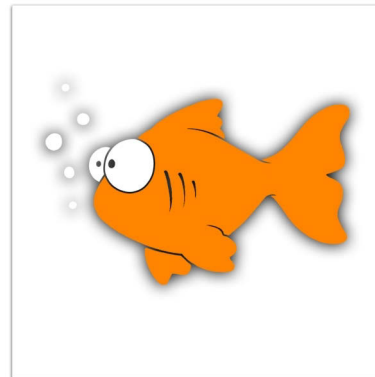
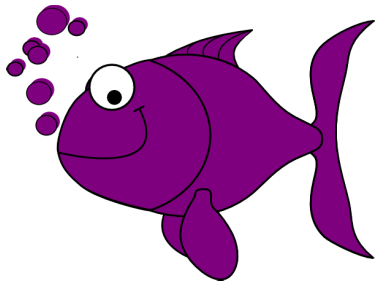
Il est vieux



Je suis triste



La lumière est rouge



Le poisson est orange



Elle est malade



Mon nom est Mario



Des bananes



Il est un médecin

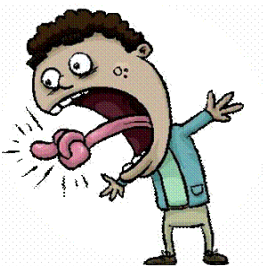
APPENDIX G – PICTURE MATCHING

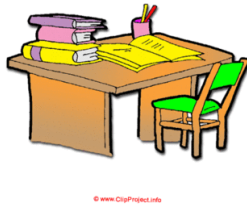
Instructions: Under each picture below, write the name of the object that you see. The first one has been done for you as an example. The clues to help you with your answers are on the second page.

Example:

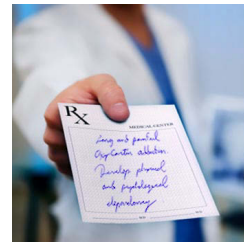


la fille

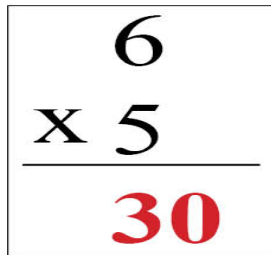






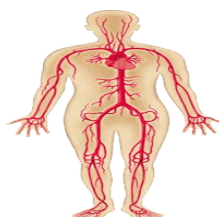
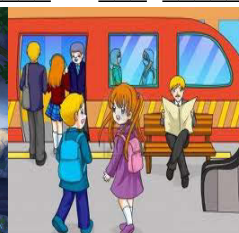
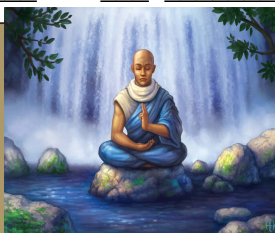
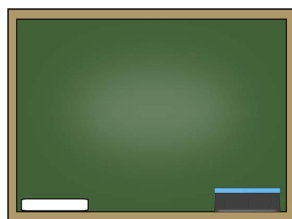
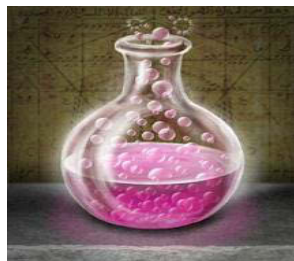
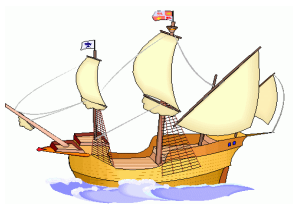












Clues:

natation, bureau, serpenteau, circulation, couteau, gâteau, potion, prononciation, tableau,
manteau, civilisation, château, chapeau, prescription, méditation, veau, bateau, pollution,
multiplication, station

APPENDIX H – FEEDBACK QUESTIONNAIRE

Name:

Do you feel like you learned anything about French grammar after doing the three picture activities? Please be as specific a possible.

What did you think about the activities in general?

APPENDIX I – POST-TEST

Post-test

Participant name:

Underline the answer that you think is correct. If you don't know, underline "Je ne sais pas".

1. a) J'ai des dans blanches b) J'ai des dents blanches c) Je ne sais pas
2. a) Une génération b) Un génération c) Je ne sais pas
3. a) C'est chaud b) Ses chaud c) Je ne sais pas
4. a) Une boîte de lait b) Une boîte du lait c) Je ne sais pas
5. a) Un teste de français b) Un test de français c) Je ne sais pas
6. a) Une circulation difficile b) Un circulation difficile c) Je ne sais pas
7. a) Je voudrai un thé b) Je voudrait un thé c) Je ne sais pas
8. a) Un mot croisés b) Un mot croisé c) Je ne sais pas
9. a) Une bureau b) Un bureau c) Je ne sais pas
10. a) Il fait belle b) Il fait beau c) Je ne sais pas
11. a) Je ne me suis pas brossé les dents b) Je ne me suis pas brossé mes dents c) Je ne sais pas
12. a) Faire un multiplication b) Faire une multiplication c) Je ne sais pas
13. a) Ma grand-mère b) Ma grande-mère c) Je ne sais pas
14. a) J'ai acheté des pneux b) J'ai acheté des pneus c) Je ne sais pas
15. a) Un couteau b) Une couteau c) Je ne sais pas
16. a) Le devoir est difficile b) Le devoir sont difficiles c) Je ne sais pas
17. a) Un cerveau b) Une cerveau c) Je ne sais pas
18. a) J'ai beaucoup de l'argent b) J'ai beaucoup d'argent c) Je ne sais pas
19. a) Une drapeau b) Un drapeau c) Je ne sais pas
20. a) Une hallucination b) Un hallucination c) Je ne sais pas
21. a) Parle-tu français ? b) Parles-tu français ? c) Je ne sais pas
22. a) Un bateau b) Une bateau c) Je ne sais pas
23. a) Je vient du Canada b) Je viens du Canada c) Je ne sais pas

24. a) Une potion b) Un potion c) Je ne sais pas
25. a) Un membre de l'audience b) Un membre du audience c) Je ne sais pas
26. a) Un verre cassée b) Un verre cassé c) Je ne sais pas
27. a) Un chapeau b) Une chapeau c) Je ne sais pas
28. a) Il n'a pas des soeurs b) Il n'a pas de soeurs c) Je ne sais pas
29. a) Un cellulaire de Rogers b) Un Rogers cellulaire c) Je ne sais pas
30. a) Une civilisation b) Un civilisation c) Je ne sais pas
31. a) Je voudrait te parler b) Je voudrais te parler c) Je ne sais pas
32. a) Un panneau b) Une panneau c) Je ne sais pas
33. a) Je travaille à la SPCA b) Je travaille au SPCA c) Je ne sais pas
34. a) Un prescription b) Une prescription c) Je ne sais pas
35. a) Une orange ligne b) Une ligne orange c) Je ne sais pas
36. a) Un dictionnaire b) Un dictionnaire c) Je ne sais pas
37. a) Un gateau b) Une gateau c) Je ne sais pas
38. a) Un crayon à papier b) Un crayon du papier c) Je ne sais pas
39. a) J'apprend le français b) J'apprends le français c) Je ne sais pas
40. a) Une oiseau b) Un oiseau c) Je ne sais pas
41. a) Comment t'appelles tu ? b) Comment t'appeles tu ? c) Je ne sais pas
42. a) Un addiction b) Une addiction c) Je ne sais pas
43. a) Une bouteille d'eau b) Une bouteille de l'eau c) Je ne sais pas
44. a) Une intersection b) Un intersection c) Je ne sais pas
45. a) Une prise electric b) Une prise électrique c) Je ne sais pas
46. a) Un cadeau b) Une cadeau c) Je ne sais pas
47. a) Les État-Unis b) Les États-Unis c) Je ne sais pas
48. a) Un organisation b) Une organisation c) Je ne sais pas
49. a) J'habite à Montréal b) J'habite en Montréal c) Je ne sais pas
50. a) Un station b) Une station c) Je ne sais pas

51. a) J'ai 35 ans b) Je suis 35 ans c) Je ne sais pas
52. a) Une marteau b) Un marteau c) Je ne sais pas
53. a) J'en ai besoin b) J'y ai besoin c) Je ne sais pas
54. a) Venez me voir b) Venez voir moi c) Je ne sais pas
55. a) Une agrafeuse b) Une agrafeuse c) Je ne sais pas
56. a) Un habitation b) Une habitation c) Je ne sais pas
57. a) Je me lave mes mains b) Je me lave les mains c) Je ne sais pas
58. a) Un tableau b) Une tableau c) Je ne sais pas