

DO INSTRUCTION AND EXPOSURE MAKE A DIFFERENCE ON THE LEARNING OF ORTHOGRAPHIC SPELLING BY SPEAKERS OF A REGIONAL VARIETY?*

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ABSTRACT

Referential French is a complex written code acquired at school by speakers of vernacular varieties (Barbaud 1997). The goal of this study is to investigate the influence of instruction and exposure on subjects' production of several elements of Referential French which Lefrançois, Laurier, Lazure, and Claign (2005) showed to be problematic and which showed improvement after instruction, that is *l'orthographe grammaticale* 'grammatical spelling'. Grammatical spelling is an aspect of spelling in French which involves inflected forms of words. A controlled-production task was administered to 80 speakers of New Brunswick Acadian French who were students at a francophone university in the Maritime Provinces. There were 40 subjects in their first year of studies and 40 in their fourth or subsequent year. A number of aspects of orthographic spelling were examined: verb forms in the *passé simple*, past participial forms and agreement, and subject-verb agreement. Results showed that while there was still variability in the fourth-year students' use, their performance was significantly closer to Referential French than that of the first-year students.

Key words: Referential French, New Brunswick Acadian French, grammatical spelling

RÉSUMÉ

Le français de référence est un code écrit très complexe qui est appris à l'école par les locuteurs des variétés vernaculaires (Barbaud 1997). L'objectif de cette

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étude est d'étudier l'influence de l'enseignement en français de référence et de l'exposition à cette variété sur la production de certains éléments du français de référence que Lefrançois, Laurier, Lazure, et Claing (2005) ont trouvés problématiques et pour lesquels il y avait une amélioration après l'enseignement, c'est-à-dire, l'orthographe grammaticale. On a administré une tâche de production contrôlée à 80 locuteurs du français acadien du Nouveau-Brunswick qui étudiaient à une université francophone dans les provinces maritimes du Canada. Il y avait 40 sujets en première année d'université et 40 en quatrième année. On a étudié plusieurs aspects de l'orthographe grammaticale : les conjugaisons aupassé simple, les formes et les accords des participes passés, et l'accord sujet-verbe. Selon les résultats, bien qu'il y ait de la variabilité dans les productions des étudiants en quatrième année, leur performance était plus proche du français de référence que celle des étudiants en première année, et cela d'une façon statistiquement significative.

Mots-clés : Le français de référence, le français acadien du Nouveau-Brunswick, l'orthographe grammaticale

1. INTRODUCTION

Boudreau and LeBlanc (2000) summarized the debate about vernacular varieties and standard French in Québec and New Brunswick. In both cases it was launched in the 19th century by purists who wanted to protect the quality of the French language, which they considered to be debased due in large part to Anglicisms. In a similar vein, Boudreau and Perrot (2005) noted that for over 50 years there has been heated discussion about what norm should be taught to francophone students in Canada. On the one hand there is pressure for students to be taught the standard variety while on the other the students' vernacular variety should not be denigrated.

Barbaud (1997) argued that then-current definitions of diglossia were inadequate for describing the linguistic situation in Quebec, and proposed that the term *diglossia* be restricted to varieties — Québécois and standard French — and that the term *bilingualism* be applied to languages (French and English). He argued that this distinction was necessary because the two phenomena co-exist in the same territory. Referring to diglossia in Québec, he discussed what he called the *variété divergente* 'divergent variety' and the *variété de référence* 'referential variety'. He defined the *variété divergente* as the unmarked variety spoken by all social classes, but stigmatized by speakers of other varieties. He contended that in diglossic situations young children acquire the *variété divergente* naturally as their L1, but learn the *variété de référence*, which he defined as a complex written code, throughout their school years, continuing into adulthood. In what follows, I will use the term "referential variety" or "Referential French" (Auger and Valdman 1999) to refer the complex written code acquired at school by speakers of vernacular varieties (*divergent* in Barbaud's terms).

Mastery of Referential French presents a number of problems to francophone university students and is a contributing factor to student failure at university in Quebec (Roy and Bourdreau 1995), Belgium (Monballin, van der Brempt and

G. Legros 1995) and France (Romainville 2000; Louvet and Preteur 2003, for example). A thematic issue of the *Revue des sciences de l'éducation* published in 1995¹ dealt with the mastery of written French in post-secondary institutions in Québec. Its purpose was to evaluate the effects on students' writing of a new *Programme d'études de français* ('Program of French studies') which was introduced in Quebec schools in 1980. This program, based on then current reading and writing theory, put the emphasis on discourse structure and rhetorical strategies as well as sentence-level grammatical accuracy, but sentence-level grammar was not taught after the third year of secondary school (Roy and Boudreau 1995). The authors concluded by echoing Barbaud's contention that the Referential variety is not fully acquired even after many years of primary, secondary and post-secondary education (p. 14).

A number of articles in this thematic issue supported Roy and Boudreau's assertion. Lafontaine and Legros (1995) administered a proficiency test to 38 university students who were classified as "weak", based on a standardized university test of writing and spelling (*TURBO*). Students were asked to find errors of a various types, including past participial agreement, number and gender agreement, lexical spelling and conjugation. The researchers also analysed the same students' compositions for errors. Students were able to identify past participial errors (25%) more successfully than gender and number errors (17%). In students' written production, gender and number agreement represented 24% of the total number of errors, while past participial agreement represented less than 5%. For verb agreement errors, the percentage of errors in production and identification were the same (16%).

Simard (1995) asked university students to identify errors, telling them what type of error to look for at the beginning of each section. (lexical spelling or past participial agreement for example). The average accuracy rate in locating errors was 52% for past participles, 51% for gender and number, and 49% for conjugation. When asked to correct a text, with no indication of how many or what types of errors there were, students were able to correct 48% of conjugation errors, 47% of past participle errors and 45% of gender and number errors. Simard concluded that the post-secondary students in his study still hadn't mastered lexical and orthographic spelling, and that one reason for this lack of mastery was the complicated spelling system of French.

Difficulties in learning the Referential variety are not confined to North American francophones, as the title (and contents) of a recent book suggest: *Le français m'a tuer*²: *Actes du colloque "L'orthographe française à l'épreuve du supérieur"* (Didier, Hambursin, Moreau and Seron 2006), which contains articles by researchers from Belgium and France. In the Introduction it is noted that the issue of

¹It would appear to be the most recent issue, based on an electronic search of the tables of contents of the *Revue des sciences de l'éducation* from 1996 to 2007.

²The title (literally 'French has to kill me') reflects a common confusion among students between the homophonous infinitive *tuer* and past participle *tué*.

spelling is one that raises many questions in post-secondary education because students' work is peppered (*truffé*) with errors. In his article in the collection, Braun (2006) listed some of the most common errors, which included subject-verb and past-participial agreement, as well as grammatical homophones.

Manesse (2007) explored the ramifications of a new approach to teaching the French language at the secondary level, which was introduced in 1996. According to the author, this approach put greater weight on discourse, accepted more linguistic variation and had moved away from teaching rules and memorization. She and her co-investigators conducted a comparative study of students' errors in writing in 1987 and 2005 based on a nationally administered dictation *Les arbres* ('Trees'), including missing or misdivided words, errors in agreement and conjugation, and spelling errors. They found that in the nearly 20 years between the dictations there had been a significant increase in the number of errors: an average of 13.5 major (*lourds*) errors in 2005 compared to 8 in 1987. This translated into a difference of approximately two grade levels; for example, 14-year-olds in 2005 made the same number of errors as 12-year-olds in 1987. Manesse attributed this increase in major errors to the fact that under the new program there was more emphasis on discourse than sentence-level grammar. She noted that university professors deplored the quality of students' spelling, but did not feel it was their place to remedy it (citing Elalouf *et al.*, 1998).

There have been recent initiatives to ensure that francophone university graduates in Québec and New Brunswick have an appropriate level of Referential French. In 1985 university administrators in Quebec voiced their concerns about the quality of the written French of post-secondary students, after professors had been raising the issue for a number of years, and in 1992 the Ministry of Education decreed that all students would need to pass a French-language proficiency examination before they could be admitted to university, in order to continue at university or in order to graduate. The first test was administered in the spring of 1992, and most failures were due to two criteria: syntax and punctuation, and lexical and grammatical spelling (Lépine 1995). All CÉGEP students have had to pass a French-language proficiency test before they can graduate,³ and most francophone Québec universities offer remedial French-language courses for francophones and allophones⁴ (Lefrançois, Laurier, Lazure and Claing 2005).

In New Brunswick, at the francophone university, l'Université de Moncton, all undergraduate students must take a minimum of six credits in French, beginning with FRAN 1903,⁵ *La langue et les normes* ('Language and norms'). Accord-

³For readers not familiar with the post-secondary system in Québec, CÉGEPs offer two kinds of programs, some of which lead to a diploma and others which serve as a transition between high school and university.

⁴An anonymous evaluator was unfamiliar with the term "allophone" in this context. It refers to a speaker, particularly in Quebec, whose first language is neither English nor French, or an aboriginal language.

⁵www2.umoncton.ca/cfdocs/repertoire/1er_cycle/fran1903.htm.

ing to Gauvin (2002), the purpose of this course is twofold. First, throughout the semester teachers and students evaluate the students' proficiency in writing using a series of exercises and writing samples. Based on this diagnostic students take from one to three subsequent French language courses,⁶ and cannot register for third- or fourth-year courses without having fulfilled this linguistic requirement (Université de Moncton 2007). The second goal of FRAN 1903 is to expose students to basic concepts of sociolinguistic variation, emphasizing appropriate language use depending on the context, and showing that non-standard varieties are also systematic and rule-governed. The role of the norm in a university context is also discussed. This consciousness raising (*prise de conscience*, p. 9) is done through readings, exercises and discussions.

While there has been a great deal of research concerning students' errors, to the best of my knowledge Lefrançois et al. (2005) is the only study to investigate the effectiveness of instruction in the referential variety on post-secondary students in the French-speaking world. Subjects were CÉGEP and university students with weak skills in Referential French who were registered in writing courses or receiving peer tutoring at a language centre. Results showed that there were significant differences between pre- and post-test scores for all groups, but that there were no significant differences in the progress of the treatment groups and the control group. The authors noted that control group was significantly stronger to begin with, and argued that the weaker students might not have progressed without intervention. One of the areas that was most problematic and which showed the most improvement after instruction was *l'orthographe grammaticale* 'grammatical spelling'. Grammatical spelling is an aspect of spelling in French which involves inflected forms of words, for example gender and number.

The goal of this article is to investigate the influence of instruction and exposure on the production of several elements of grammatical spelling by francophone university students in New Brunswick. I will look specifically at verbal inflection in the *passé simple* 'simple past', past participial agreement and subject-verb agreement.

2. ELEMENTS OF GRAMMATICAL SPELLING

As Barbaud (1997) noted, Referential French is a complex written code which is acquired at school, and its acquisition may continue well into adulthood. In this section, I will give a brief description of three elements of this complex written code which have shown to be sources of errors in francophone university students'

⁶www2.umoncton.ca/cfdocs/repertoire/1er_cycle/fran1913.htm *Rédaction universitaire* ('University composition'), www2.umoncton.ca/cfdocs/repertoire/1er_cycle/fran1923.htm *Grammaire fondamentale* ('Basic grammar') and/or www2.umoncton.ca/cfdocs/repertoire/1er_cycle/fran1933.htm *Grammaire de la phrase* ('Sentence-level grammar') (see Université de Moncton 2007:231).

writing, namely verb conjugations, specifically the *passé simple* (Section 2.1), past participial agreement (Section 2.2) and subject-verb agreement (Section 2.3).

2.1. The *passé simple*

In Standard French the *passé simple* is extremely rare in oral language and is found mostly in historical or literary texts. (*Bescherelle: L'art de conjuguer* 1998; Chartrand et al. 1999; *Grévisse* 2003). Turning to the vernacular variety, in Nova Scotia Acadian French, use of the *passé simple* is robust by both younger and older speakers (Dulong 1959; Gesner 1979, 1985; Ryan 1989) but it is very infrequent or non-existent in New Brunswick Acadian French (Péronnet 1986 for the Southeast; Flikeid 1989 for the Northeast).

Under the French-language curriculum for francophone schools in New Brunswick (Ministère de l'Éducation 2005), secondary students learn to identify verb tenses and explain how they are appropriate for particular communicative purposes. According to the curriculum, in narrations the main events of the story which advance the plot line are expressed in the *passé simple* while the *imparfait* 'imperfect' provides background. As with other verb forms, in the *passé simple* students must learn the root and which inflectional endings it takes.

It is likely that the use of this verb form by Acadian speakers from New Brunswick would be a result of instruction at secondary school rather than influence of the vernacular, but the alternate hypothesis will be explored in Section 3.1.

2.2. Past Participial Agreement

Learning Referential French requires not only that students know the form of the past participle with irregular verbs, but also which auxiliary it takes and when to indicate agreement in gender and number.⁷ The past participle agrees with the subject in the case of verbs conjugated with *être* 'be', (1a and 1b) and with pre-posed direct objects in the case of verbs conjugated with *avoir* 'have'. The two most frequent contexts for the latter are direct object clitic pronouns (1c) or the relative pronoun *que* 'that' as in (1d).

- (1) a. Le garçon-SG.M est arrivé-SG.M.PP /La fille-SG.F est arrivée-SG.F.PP
 the boy is arrived /the girl is arrived
 'The boy (has) arrived.' / 'The girl (has) arrived.'

⁷The following abbreviations are used:

1	first person	M	masculine
2	second person	ORTHO	orthographic
3	third person	PRES	present
AGR	agreement	PL	plural
COND	conditional	PP	past participle
F	feminine	PS	<i>passé simple</i>
FUT	future	SG	singular
IMP	imperfect		

- b. Les garçons-PL.M sont arrivés-PL.M.PP /Les filles-PL.F sont arrivées-PL.F.PP
 the boys are arrived. /the girls are arrived
 'The boys (have) arrived.' / 'The girls (have) arrived.'
- c. J' ai acheté des fraises_i-PL.F, mais mon fils les-PL_i a mangées-PL.F.PP⁸
 I have bought some strawberries but my son them has eaten
 'I bought some strawberries, but my son ate them/has eaten them.'
- d. Mon fils a mangé les fraises-PL.F [que [j' ai achetées-PL.F.PP]]
 my son has eaten the strawberries which I have bought
 'My son has eaten the strawberries which I bought.'

Lafontaine and Legros (1995) found that the university students in their study had a tendency to over-generalize the rule of participial agreement with *être* to verbs conjugated with *avoir*: 80% of students' errors with *avoir* involved agreement when there was no direct object or when the direct object was post-verbal. In these cases subjects made the past participle agree with the subject ("des cas qui font appel à la règle générale" [p. 129] 'cases which call for the general rule'). For example when asked to verbalize the rule for (2a), which is ungrammatical in Referential French, one subject verbalized that since *la popularité* 'popularity' preceded the verb and is feminine, *cessée*-F was correct. In Referential French the past participle does not agree with the subject when the verb is conjugated with *avoir*, so the correct response would be (2b).

- (2) a. *La popularité-SG.F du vaudeville a cessée-SG.F.PP vers la fin du XIXe siècle.
 'The popularity of vaudeville ceased towards the end of the 19th century.'
- b. La popularité-SG.F du vaudeville a cessé-SG.M.PP vers la fin du XIXe siècle.

Lafontaine and Legros (1995) described another source of errors, what they called "verb agreement errors", which included using the infinitive where the past participle was appropriate, for example "La mentalité des hommes a changer" (p. 134 ['Men's mentality has change-INF']). This is one example of the homophony of French spelling which makes its mastery difficult. Indeed, in one section of Simard's (1995) study, students were asked to verbalize as they corrected errors: one third of verbalizations dealt with homophony. There were 60 cases of verbalizations relating to the homophonous infinitive — *er* and past participle — *-é*. Students employed a replacement strategy for verifying whether the infinitive or past participle should be employed by replacing the form of a regular verb such as *aimer*-INF or *aimé*-PP with an irregular verb such as *battre*-INF or *battu*-PP to see if the form was correct. Weaker students were more likely to use replacement strategies than the stronger ones. Farid (1992) also found that past-participial agreement was problematic for university students in Québec.

⁸The plural pronoun *les* is unmarked for gender, but its antecedent is feminine.

2.3. Subject-verb agreement

The issue of homophony in French mentioned in Section 2.2 also causes difficulties with subject-verb agreement. Fayol, Hupet and Largy (1999) noted that acquiring subject-verb agreement in French is particularly challenging since singular and plural inflections in the present tense are homophonous with regular verbs. Largy, Fayol and Lemaire (1996) referred to this characteristic of French as “silent morphology”: there is no direct correspondence between the oral and written forms. They found that subjects’ performance on a recall task was more accurate with irregular verbs in which there is an audible difference in the present (e.g., *boit*-3SG and *boivent*-3PL) than with regular verbs where there is no difference (e.g., *arrive*-3SG and *arrivent*-3PL). Similarly, Largy and Fayol (2002) showed that induced “attraction errors” in undergraduate students were less frequent with irregular verbs, when there was a phonological distinction between singular and plural in the present (i.e., *boit/boivent* [bwa]/[bwav] vs. *arrivelarrivent* [aRiv]/[aRiv]), and Largy, Cousin and Dédéyan’s (2005) study showed that with expert adults fewer errors could be induced with irregular verbs, where there is a difference in pronunciation of the singular and plural (e.g., *boit*-3SG and *boivent*-3PL) compared to regular verbs where there is none (*arrive*-3SG and *arrivent*-3PL).

Fayol, Hupet and Largy (1999) noted that although subject-verb agreement errors in speech are rare in adult speech and writing, when they do occur it is in particular contexts: the most frequent one being in [_{DP}[_{DP}][_{PP}[_P [_{DP}]], particularly when the DP in PP is plural (e.g., **La fille*-3SG *des voisins*-3PL *chantent*-3PL. *‘The daughter of the neighbours sing.’). Following Bock and Eberhard (1993) they called these “attraction errors” (p. 157). Franck and Hupert (2001) also noted that subject-verb agreement errors in spontaneous speech were rare and systematic, and that many are due to what they called “proximity” or “attraction” (p. 5). Chanquoy and Alamargot (2002) made a similar point.

In traditional Acadian French the 3PL ending is *-ont* in the present and *-iont* in the imperfect: Péronnet (1991) for south-eastern New Brunswick and Beaulieu, Cichocki and Balcom, (2002) for north-eastern New Brunswick, the regions of origin for the subjects in the current study. Chiasson-Albert (2005) used a picture elicitation task with children from the same community as those in Beaulieu, Cichocki and Balcom (2001), and found that the production of *-ont* decreased from 36.2% by the 4- to 5-year-olds to 24.0% by the 10- to 12-year-olds. She examined the same social variables as those proposed by Beaulieu, Cichocki and Balcom (2001), and found that the children’s social network accounted for the frequency of occurrence of the traditional variant: those who participated in socio-cultural events within and outside the community used *-ont* less than those who did not. However, it is clear that age is also a variable, with the older children using the traditional variant less than the younger children, likely as a result of schooling. This was an oral task, and to the best of my knowledge there have been no studies on this variable in the written French of speakers of Acadian French from these regions. In my analysis I

will also look for use of this variable in the written production of young adults.

3. PROCEDURE

The data in this article were taken from a project which investigated the acquisition of auxiliary *être* and its syntactic correlates by speakers of New Brunswick Acadian French. Because the goal of the study was to investigate the acquisition of Referential French, a written variety, two experimental tasks were used, a controlled production task and an acceptability judgment task. These tasks also meant that the forms in question could be obtained from a large number of subjects, and that the linguistic context would be the same for all. Only certain results of the controlled production task will be discussed in this article.

3.1. Materials

The controlled production task was a narrative (based on Harvey 1981) with 44 blanks to be filled with an appropriate form of the verb in parentheses. An excerpt is given in (3). It was administered to groups of students during the last 10 to 15 minutes of one of their language classes in the case of the first-year students, and at the same time in one of their content classes in the case of the fourth-year students. Students had the choice to remain or leave, but most elected to remain.⁹ The English version of (3) is provided in Appendix 1, and the full passage in French is provided in Appendix 2.

- (3) *Directives: Lisez soigneusement le passage ci-dessous. Remplissez les blancs avec une forme appropriée du verbe entre parenthèses. Il est possible que vous deviez ajouter un verbe auxiliaire ou un pronom réfléchi. Parfois, il y a plus qu'une possibilité, et plusieurs temps verbaux sont acceptables.*

Voici des exemples: Jean a perdu (perdre) son livre. Je vais lui donner OU lui donnerai (lui donner) le mien. Son livre a été volé (voler) hier. Il s'est mis (mettre) en colère.

... En quelques minutes, les toits des maisons de Long Hill _____ (brûler) et toutes les fenêtres _____ (briser) à cause de la chaleur. La fumée _____ (monter) autour des édifices et _____ (dispenser) dans le ciel. Le feu _____ (arriver) rapidement à la belle cathédrale anglicane. Le métal autour des vitraux _____ (fondre) à cause de la chaleur intense. ...

3.2. Subjects

Subjects were 80 speakers of New Brunswick Acadian French who were students at the Université de Moncton. There were forty first-year students and forty fourth-year students. The first-year students were twenty females and twenty males ranging in age from 18 to 25, with a mean age of 18.8. The fourth year students were 30 females and 10 males ranging in age from 20 to 44, with a mean age of 23.8.

⁹The judgment task was administered at the same time.

TABLE 1
Example of possible responses

	<i>Être + PP</i>	<i>Avoir + PP</i>	<i>Simple past</i>	<i>Present</i>	<i>Imperfect</i>	<i>S'expr + PP</i>	<i>Different verb</i>	<i>Conditional</i>	<i>No response</i>	<i>Total</i>
First year	4	1	24	2	6	1	0	1	1	40
Fourth year	8	2	25	2	2	0	1	0	0	40

Although it would have been desirable to have the fourth-year subjects divided equally between males and females, it was impossible to locate an adequate number of males. Previous analyses of the first-year subjects (Balcom 2005) had shown that sex was not a significant variable. Nor was region of origin, so these variables were not considered in the analysis in this study. All first-year students were registered in FRAN 1903 and the fourth-year students would all have completed their French-language requirement.

4. RESULTS

Given the nature of the controlled-production task, a rational cloze passage with the infinitival form of the verb provided, there was always more than one possible correct response. The text was a narrative, so that the majority of responses were in the *passé simple* 'simple past' or the *passé composé* 'compound past', although depending on the context the imperfect or another verb form was sometimes used. To demonstrate the diversity of possible responses, Table 1 gives all responses for the verb *arriver* 'arrive' in the context shown in (4).

(4) Le feu _____ (arriver) bientôt à la belle Cathédrale anglicane.

Consequently, in the presentation of the data which follows, the number of tokens with a particular verb form does not always add up to the total number of responses/verb by the number of subjects, since all subjects did not use the same form in their responses. For this reason the chi-square test was used, because it measures frequency of responses (nominal data). The numbers in the following tables represent the frequency of occurrence of a certain form, not the mean number of correct or incorrect responses. When looking at forms of the *passé simple*, only responses in that verb form were considered, and with past participial agreement only those responses which contained a past participle were analysed. In the example given in Table 1, for the *passé simple* the first-year subjects provided 24/40 responses in that form and the fourth-year subjects provided 25/40. Similarly, for past-participial agreement 6/40 of the first-year subjects' responses and 10/40 of the fourth-year subjects' responses in Table 1 were considered. These responses were then further analysed as correct or incorrect according to Referential French.

4.1. Passé simple

Based on the discussion of the *passé simple* in Section 2.1 above, it is likely that the subjects' use of this verb tense is a result of instruction at secondary school rather than influence of the vernacular, but the alternate hypothesis will be explored below.

4.1.1. Regular verbs

The best testing ground for the question of whether subjects' use of the *passé simple* in the controlled-production task is due to influence of the vernacular variety or the result of instruction in Referential French at secondary school is regular (-er) verbs. In Acadian French they are what Péronnet (1986) called "i"-forms *arrivis, arrivis, arrivit, arrivrent*, etc., while in Referential French the forms are *arrivai, arrivais, arriva, arrivèrent*, etc.

Out of a total of 447 occurrences of regular verbs in the *passé simple* there was only one deviation from Referential French in the form of the inflectional suffix, *tombirent* ('fell'; *tombèrent* in Referential French). It seems evident that subjects' use of the *passé simple* is a result of instruction at secondary school, and in fact students have to "unlearn" this verb form at university (Marie-Sylvie Larue, p.c.) because it is not employed in academic writing.

4.1.2. Irregular verbs

In what follows the term "irregular verb" is used as a cover term for all verbs which are not regular -er verbs. Following Péronnet (1986), I will classify responses as "i"-forms and "u"-forms, which relates to whether the inflectional morpheme begins with *i* (-is, -is, -it, -îmes, -ites, -irent) or *u* (-us, -us, -ut, -ûmes, -ûtes, -urent) in Referential French.

Table 2 gives the frequency of correct and incorrect forms produced by the subjects, according to Referential French. "Incorrect" refers only to the inflectional ending, and does not take into account subject-verb agreement, which will be discussed in Section 4.3.

TABLE 2
Responses with irregular *passé simple* forms by year

	First year		Fourth year		Yates χ^2	<i>p</i>
	Correct	Incorrect	Correct	Incorrect		
"i"-forms	24	24	40	9	9.45	≤ .01
"u"-forms	72	10	69	5	0.77	= .38

With "i"-forms, the differences between the groups are significant (Yates $\chi^2 = 9.45$, $p = 0.002$).¹⁰ The first-year subjects had as many incorrect as correct re-

¹⁰All Chi-square calculations were made using Preacher's web facility (Preacher 2001, April). The Chi-square test is designed for nominal data, that is, frequency counts. In all

sponses — a 50% error rate — due to their tendency to use the past participial form rather than the *passé simple* form with verbs whose past participle ends with *-u*, such as *fondu*-PP (5a), which is homophonous with the 3SG.PS of “u” verbs (*-ut*), although a past participle is ungrammatical in this context. Subjects also used *passé simple* inflections for regular verbs (*-a*-3SG.PS), as shown in (5b). Some subjects also used the Referential French form (5c). There were also cases where the final *-t* in the 3SG.PS was omitted (5d), lending support to the hypothesis that with both “u”- and “i”-forms subjects intended to provide the 3SG form but omitted the silent *-t* of the Referential French form.

- (5) a. Le métal autour des vitraux fondu à cause de la chaleur intense.
 ‘The metal around the windows melted because of the intense heat.’
 b. Le métal autour des vitraux fonda à cause de la chaleur intense.
 c. Le métal autour des vitraux fondit à cause de la chaleur intense.
 d. Le métal autour des vitraux fondi [sic] à cause de la chaleur intense.

Both groups were accurate with the “u”-forms (including with the auxiliaries *avoir* and *être*), 87.8% correct responses for the first-year subjects and 93.2% for the fourth-year subjects. The differences between the groups with “u”-forms are not statistically significant (Yates $\chi^2 = 0.77$, $p = 0.38$).

Some errors similar to (5a) also occurred, where the homophonous past participle was provided rather than *-ut*-3SG.PS (6a), although in the majority of cases the correct form was produced (6b). With verbs in the 3PL the majority of responses were also correct, although several subjects used either the “i” form (6c) or the regular (*-er* verb) form (6d), rather than the Referential French form *-urent*.

- (6) a. La fumée épaisse disparu-SG.M.PP mais l’air sentit mauvais pendant quelques mois après le feu.
 ‘The thick smoke disappeared-PP,¹¹ but the air smelled for months after the fire.’
 b. La fumée épaisse disparut-3SG.PS mais l’air sentit mauvais pendant quelques mois après le feu.
 c. Seulement deux personnes mourrirent-3PL.PS dans le Grand Feu de 1892.
 ‘Only two people died in the Great Fire of 1892.’
 d. Tous les magasins disparaissèrent-3PL.PS les uns après les autres.
 ‘All of the shops disappeared one by one.’

2×2 tables the Yates’ correction for continuity was incorporated. Accepted frequencies of less than 5 are acceptable if this correction is used (Preacher 2001, April). An anonymous reviewer noted that a parametric statistical test would be more powerful than the chi-square test, which is a non-parametric test. This is correct, but the nature of the data, as described under Results, is not compatible with parametric tests.

¹¹Morpheme glosses are only given in the English translation when the English form does not represent the original French one.

The fact that the past participle of “u”-forms is homophonous with the 3SG of the *passé simple* -*ut* is likely the reason subjects were more accurate with this conjugation of the *passé simple* than with the “i”-forms, where several of the verbs in the task (e.g., *étendre*, *fondre*) have past participles in -*u* but *passé simple* forms in -*it*.

4.2. Past participial agreement

There were twenty regular (-*er*) verbs in the controlled production task, seven of which are conjugated with *être* in Referential French (*arriver*, *se briser*, *se disperser*, *monter*, *rester*, *se terminer*, *tomber*¹²). One regular verb required a response in the passive voice (*toucher*). There were also six unergative verbs and five transitive verbs, all of which are conjugated with *avoir* in Referential French (*augmenter*, *arroser*, *balayer*, *brûler*, *commencer*, *crier*, *esperer*, *lancer*, *sonner*, *travailler*). There were also nine irregular verbs: *descendre*, *détruire* (in the passive voice), *disparaître*, *étendre*, *fondre*, *mourir*, *produire* and *sentir*.¹³ For each verb the number of occurrences with both auxiliaries was tabulated, whether or not the auxiliary occurs with the verb in Referential French. So, for example, 3M *avoir* includes responses in which subjects used *avoir* with verbs which are conjugated with *être* in Referential French (e.g., *arriver*) as well as with verbs conjugated with *avoir* in Referential French (e.g., *travailler*). In the analysis of agreement, no distinction was made between auxiliary *être* and passive *être* since the rules of agreement are the same. Nor was tense or aspect taken into account (*est/était/fut arrivé*).

Table 3 shows the frequency of responses consisting of an auxiliary verb *avoir* or *être* and the past participle. Correct and incorrect past participial agreement is based on Referential French.

TABLE 3
Past participial agreement by auxiliary, gender and year

	First year			Fourth year			Yates χ^2	<i>p</i>
	Correct	Incorrect		Correct	Incorrect			
		Form	AGR		Form	AGR		
3M <i>avoir</i>	126	3	12	198	3	12	0.99	= .32
3M <i>être</i>	158	9	19	195	10	17	0.87 (2df)	= .65
3F <i>avoir</i>	52	5	11	79	0	13	1.74	= .19
3F <i>être</i>	34	4	52	84	0	25	29.92	≤ .001
Total	370	21	94	556	13	67	23.86 (2df)	≤ .001

¹²*Monter* (and the irregular verb *descendre*, which also occurs in the task) can be conjugated with *être* or *avoir* depending on whether the event described by the verb is an accomplishment or an activity, respectively. In this task, all events were accomplishments, where *être* is preferred. (See Balcom 2008 for further discussion of this issue.)

¹³Some verbs occurred more than once in the passage.

Most responses with an auxiliary were in the *passé composé* 'compound past', but some were also in the *plus-que parfait* 'pluperfect' (7a and 7b) or the *passé antérieur* 'past anterior' (7c). The first-year subjects used the *passé simple* more and the *passé composé* less than did the fourth-year subjects, so that the total number of responses with auxiliaries is fewer. (See Balcom 2008 for further details on this point.)

- (7) a. En peu de temps, une dizaine de maisons étaient brûlées sur la rue Freshwater, puis une vingtaine.
'Soon a dozen houses were burned on Freshwater Road, then twenty.'
- b. L'intensité des flammes avait augmenté ...
'The intensity of the flames had increased ...'
- c. En peu de temps, une dizaine de maisons furent brûlées sur la rue Freshwater, puis une vingtaine.
'Soon a dozen houses were burned on Freshwater Road, then twenty.'

As can be seen in Table 3, there were a total of 115/485 (23.7%) form and agreement errors in the first-year subjects' responses compared to 80/636 (12.6%) for the fourth-year subjects. The differences between the groups are statistically significant ($\chi^2 = 23.86$, 2 df. $p < 0.001$). There were few errors in form, 21/485 (4.3%) for the first-year subjects and 13/636 (2.0%) for the fourth-year subjects. In most cases subjects wrote the homophonous infinitive, for example *arriver* or *brûler* rather than *arrivé* or *brûlé*.

With irregular verbs subjects also had a tendency to provide incorrect though homophonous forms: *produis*-1/2SG.PS rather than *produit*-PP (8a) or *disparut*-3SG.PS rather than *disparu*-PP (8b). These forms occurred with an auxiliary so they cannot be considered present or *passé simple* forms.

- (8) a. Le "Grand Feu" a été produit à St.-Jean Terre-neuve le 8 juillet 1892.
'The "Great Fire" has been produced ('took place') in St. John's, Newfoundland on July 8, 1892.'
- b. La fumée épaisse avait disparut ...
'The thick smoke had disappeared ...'

As mentioned above, the differences between the groups were significant. However, if the different types of responses are examined separately, there are no significant differences between the groups with past participles occurring with *avoir*, or with participles occurring with *être* with a masculine subject, both of which are the unmarked case. However, there were highly significant differences ($p \leq .001$) in agreement errors in past participles occurring with *être* with feminine subjects. As was shown above in (1a) and (1b), in Referential French the participle and the subject agree in gender and number. The first-year students made significantly more errors, 52/90 (56.5%) compared to 25/109 (22.9%) by the fourth-year subjects. All 3SG.F errors consisted in omitting the *-e* morpheme to mark feminine gender (9a)

and (9b). For responses requiring 3PL.F agreement, almost all errors by the first-year students consisted of giving the unmarked case, that is, the 3SG.M shown in (9c) and (9d). In contrast, the fourth-year subjects made errors in gender, but the plural number was correct (9e).

- (9) a. ... une pipe-SG.F allumée est tombé-SG.M.PP dans le foin.
'... a lit pipe fell into the hay.'
- b. ... je me suis rendu compte que la rue-SG.F où j'habitais était probablement touché-SG.M.PP par la destruction.
'... I realized that the street where I was living had probably been touched by the destruction.'
- c. ... toutes les fenêtres-PL.F furent brisé-SG.M.PP à cause de la chaleur.
'... all of the windows were broken because of the heat.'
- d. D'autres balayaient les étincelles quand elles-3PL.F sont tombé-SG.M.PP sur les toits.
'Others were sweeping the sparks as they are fallen ('fell') onto the roofs.'
- e. Seulement deux personnes-PL.F sont morts-PL.M.PP dans le Grand Feu de 1892.
'Only two people are died ('died') in the Great Fire of 1892.'

Both groups had a tendency make the past participles of verbs conjugated with *avoir* agree with the grammatical subject. As can be seen in Table 3, subjects made errors in agreement with 3PL.M and 3SG/PL.F subjects occurring with *avoir*, marking the past participle with plural (10a) and (10b) or feminine plural inflection (10c) and (10d), although in Referential French past participles conjugated with *avoir* do not agree with the grammatical subject but rather a pre-posed object.

- (10) a. D'autres-PL.M ont balayés-PL.M.PP les étincelles ...
'Others have swept the sparks ...'
- b. ... les gens-PL.M ont criés-PL.M.PP
'... people have screamed'
- c. Bientôt une dizaine de maisons-PL.F ont brûlées-PL.F.PP sur la rue Freshwater ...
'Soon a dozen houses have burned on Freshwater Road ...'
- d. Les alarmes-PL.F d'incendie avaient sonnées-PL.F.PP ...

These errors are likely due to over-generalization of the rules of agreement for verbs conjugated with *être*, where the past participle does agree with the subject in person and number.

As mentioned above, in Acadian French the 3PL forms are *-ont*-3PL.PRES and *-iont*-3PL.IMP. In the fill-in-the blanks task there were 14 verbs calling for a response in the 3PL. There was not one response in which the traditional Acadian inflectional ending was used.

4.3. Subject-verb agreement

In Section 4.1 I discussed subjects' departures from Referential French with inflectional suffixes in the *passé simple*. In this section I will examine subject-verb agreement, but based on the subjects' own system, whether or not the suffix is correct in Referential French. For example, a response of *descendèrent*-3PL.PS with a 3SG subject is considered an agreement error, but *étenda*-3SG is not — although in Referential French the correct response is *étendit* — because *-a* is the 3SG form for regular verbs in the *passé simple*. If subjects wrote 1/2SG in a 3SG context I considered it an error in subject-verb agreement even though the two endings are homophonous (11a), the first in the *passé simple* and the second in the *imparfait*, both of which are written with an unpronounced *-t* in the 3SG. I deliberated long and hard before deciding to consider responses such as (11b) as orthographic rather than agreement errors. As will be seen in Table 4 this type of error is far more frequent than errors such as (10a), and combining the two types of responses would have obscured this pattern.

- (11) a. La fumée épaisse disparus-1/2SG.PS, mais l'air sentais-1/2SG.IMP toujours mauvais même quelques mois après l'incendie.
 'The thick smoke disappeared-1/2SG, but the air smelled-1/2SG bad for months after the fire.'
- b. La fumée épaisse disparu-SG.M.PP, mais l'air senti-SG.M.PP toujours mauvais même quelques mois après l'incendie.
 'The thick smoke disappeared-PP but the air smelled-PP bad for months after the fire.'

Table 4 gives the responses to irregular verbs in contexts where a 3SG response was required. There were 7 verbs which fell into this category.

TABLE 4
 Responses with 3SG agreement by year with irregular verbs

	First year			Fourth year		
	Correct	Incorrect		Correct	Incorrect	
		AGR	ORTHO		AGR	ORTHO
Auxiliary ¹⁴	109	3	1	148	3	0
<i>Passé simple</i>	27	2	38	43	1	12
Other verb form	96	1	1	68	1	1
Total	232	6	40	259	5	13

¹⁴Both auxiliaries in French are irregular verbs, but in this section I have put the results under "Regular" and "Irregular" verbs, depending on the lexical verb they occurred with. The context the verb occurred in is the same for subject-verb agreement, and the same types of errors (e.g., attraction errors) occurred with both lexical verbs and auxiliaries.

For responses in the *passé simple*, first-year subjects made significantly more errors than the fourth-year subjects, 40/67 (59.7%) compared to 13/56 (23.2%) for the fourth-year subjects. These differences are highly significant (Yates $\chi^2 = 14.56$, $p < 0.001$). The differences between the subjects are attributable to the high number of orthographic errors made by the first year students, 40/278 (14.4%) compared to 13/277 (4.7%). In many cases subjects wrote *-u-PP* instead of *-ut-3SG.PS*, particularly with *descendre* (12a) and *disparaître* (12b). Recall that, as discussed in Section 4.2, the opposite effect obtained with past participles, where some subjects wrote *-ut-3SG.PS* for the past participial ending rather than *-u-PP*. In these cases the two endings are also homophonous.

- (12) a. Le feu descendu-SG.M.PP jusqu'à la rue Duckworth et ensuite jusqu'à la rue Water.
'The fire descended-PP to Duckworth Street, and then to Water Street.'
- b. La fumée épaisse disparu-SG.M.PP, mais l'air sentait mauvais pendant quelques mois après le feu.
'The thick smoke disappeared-PP, but the air smelled-PP bad for months after the fire.'

It is possible that the subjects intended these forms to be past participles rather than the *passé simple* even though they are ungrammatical in context, since they occur in independent clauses.

This hypothesis is supported by sentences such as (13) where subjects added agreement markers.

- (13) La fumée épaisse disparue-SG.F.PP, mais l'air sentait mauvais pendant quelques mois après le feu.
'The thick smoke disappeared-PP, but the air smelled-PP bad for months after the fire.'

There were no significant differences between the groups with auxiliaries or "Other" verb forms in their singular form, which is the unmarked case.

Table 5 gives the responses with irregular verbs requiring a 3PL form. There were only two verbs in this category. Again, the fourth-year subjects were significantly more accurate than the first-year subjects (Yates $\chi^2 = 9.91$, $p < 0.001$). With the first-year subjects' 3PL agreement errors in the *passé simple*, 8/11 (72.7%) involved providing the past participial form, (*disparu(s)* (14a) and *mouru(s)*)¹⁵ as in (14b). In 3PL contexts I considered them agreement errors rather than orthographic errors because the singular and plural forms are not homophonous—the singular is *-ut* and the plural *-urent*.

- (14) a. Tous les magasins disparus-PL.M.PP les uns après les autres.
'All of the shops disappeared-PP one by one.'

¹⁵The traditional Acadian past participle is *mouri*, but it did not occur in this task. *Mouru* is likely over-generalization of the *-u* suffix from similar verbs such as *courir*, or from the *passé simple*, *mourus*, *mourut*, etc.

TABLE 5
Responses with 3PL agreement by year with irregular verbs

	First year			Fourth year		
	Correct	Incorrect		Correct	Incorrect	
		AGR	ORTHO		AGR	ORTHO
Auxiliary	37	3	0	39	0	0
<i>Passé simple</i>	12	11	1	24	2	0
Other verb form	10	6	0	10	3	0
Total	59	20	1	73	5	0

- b. Seulement deux personnes-PL.F mourrues-PL.F.PP dans le Grand Feu de 1892.
'Only two people dead-PP in the Great Fire of 1892.'

In 3PL contexts subjects also provided 3SG forms such as those in (15), as well as 3SG forms of auxiliaries, as in (16).

- (15) a. Tous les magasins disparut-3SG.PS/disparaîtra-3SG.FUT/disparaissait-3SG.IMP les uns après les autres.
'All of the shops disappeared/will disappear/was disappearing-3SG one by one.'
b. Seulement deux personnes moura-3SG.PS/meurt-3SG.PRES dans le Grand Feu de 1892.
'Only two people died-SG/dies in the Great Fire of 1892.'
- (16) a. Tous les magasins a-AUX.3SG.PRES disparu-SG.M.PP les uns après les autres.
b. Seulement deux personnes avait-AUX.3SG.IMP mouru-SG.M.PP dans le Grand Feu de 1892.

These are unambiguous agreement errors.

Table 6 gives responses with regular verbs requiring a 3SG subject. There were 15 verbs in this category.

TABLE 6
Responses with 3SG agreement by year with regular (-er) verbs

	First year			Fourth year		
	Correct	Incorrect		Correct	Incorrect	
		AGR	ORTHO		AGR	ORTHO
Auxiliary	202	6	2	260	3	9
<i>Passé simple</i>	199	4	1	161	1	2
Other verb form	160	9	12	148	10	4
Total	561	19	15	569	14	15

Both groups made a small number of errors of agreement and orthography—34/595 (5.7%) for the first-year subjects and 29/598 (4.8%) for the fourth-year subjects. The differences between the groups were not significant ($\chi^2 = 0.81$, 2df, $p = 0.67$).

Agreement errors were of two types: writing the 1/2SG form as in (17a), or providing the 3PL as in (17b) and (17c).

- (17) a. La vision de la ville en feu m'effrayais-1/2SG.IMP.
 'The sight of the burning city frightened me.'
- b. Ensuite, avec un grand fracas, le clocher de la cathédrale tombirent-3PL.PS.
 'Then, with a crash, the high roof collapsed-3PL.'
- c. ... le vent rugissant lançaient-3PL.IMP des étincelles brûlantes dans toutes les directions.
 '... the roaring wind tossed-3PL the burning sparks in all directions.'

By far the most common error was with *augmenter*, where, as can be seen in (18) the grammatical subject is singular, but the PP post-modifying the head noun contains a plural noun. As mentioned in Section 2.3, this is a systematic error of "attraction" (Chanquoy and Negro, 1996; Fayol, Hupet and Largy, 1999; Franck and Hupert, 2001) which occurs in $[_{DP}[_{DP}][_{PP}[P[_{DP}]]]$ structures, particularly when the NP in PP is plural.

- (18) $[_{DP}[_{DP}$ L'intensité-3SG $[_{PP}$ des flammes-3PL $[_{DP}]$ augmentèrent-3PL.PS/augmentaient-3PL.IMP.
 'The intensity of the flames increased-3PL.'

Both groups of subjects were very accurate with 3SG forms, which is the unmarked case.

Table 7 gives responses with verbs calling for a 3PL form. There were 10 verbs in this category.

TABLE 7
 Responses with 3PL agreement by year with regular (-er) verbs

	First year			Fourth year		
	Correct	Incorrect		Correct	Incorrect	
		AGR	ORTHO		AGR	ORTHO
Auxiliary	79	9	0	123	2	0
<i>Passé simple</i>	42	20	0	28	8	0
Other verb form	199	42	4	230	6	3
Total	320	71	4	381	16	3

The first-year subjects made a total of 71/395 (18.0%) errors, compared to 16/400 (4.0%) for the fourth-year subjects. These differences are highly significant ($\chi^2 = 40.03$, 2df, $p < 0.001$). Many of the agreement errors again involved homophony with the imperfect (19a), the present (19b) and the conditional (19c).

- (19) a. ... mes voisins-PL travaillait-3SG.IMP pour arrêter la propagation du feu.
 '... my neighbours were working to stop the fire from spreading.'

- b. Plusieurs de mes voisins-PL arrose-3SG.PRES les murs des maisons ...
 'Some of my neighbours sprays water on the walls of the houses ...'
- c. D'autres balayaient les étincelles quand elles tomberait-3SG.COND/aurait-3SG.COND tombé-SG.M.PP sur les toits.
 'Others were sweeping the sparks as they would-3SG fall/have fallen onto the roofs.'

Other errors could be due to lack of knowledge of subject-verb agreement with nouns of quantity (20a), or with a PP post-modifying the head noun (20b)—the attraction error mentioned above—although most could also be due to the homophony of the 3PL *brûlaient*-3PL.IMP, *brûlent*-3PL.PRES and *sonnaient*-3PL.IMP.

- (20) a. Une dizaine-SG de maisons-PL brûlait-3SG.IMP/brûle-3SG.PRES.
 'Soon a dozen houses was burning/burns.'
- b. [DP[DP Les alarmes-3PL [ppde feu-3SG] DP]] sonnait-3SG.IMP/sonna-3SG.PS/a-3SG.PRES sonné-SG.M.PP ...
 'Fire bells was ringing/rang/has rung ...'

As with past participles and the *passé simple* forms, in some cases it is difficult to disambiguate subjects' responses.

5. DISCUSSION AND CONCLUSION

The response to the research question — whether four years of instruction in and exposure to Referential French at university has an effect on subjects' performance — is affirmative. Although there is still variability in the fourth year students' results, their performance was significantly closer to Referential French than that of the first-year students with three elements of grammatical spelling: verb forms in the *passé simple*, past participle forms and agreement, and subject-verb agreement.

It is clear that subjects' use of the *passé simple* is a result of instruction at secondary school rather than influence of the vernacular, since there was only one case of a vernacular form in the results. The fourth-year subjects employed this verb form less than did the first-year subjects (they had "unlearned" it), and when they did use it they were more accurate, with both regular and irregular forms. Homophony between *passé simple* and past-participial forms caused a high error rate among first year subjects.

As mentioned in Section 2.3, in Acadian French the traditional 3PL forms are *-ont*-3PL.PRES and *-iont*-3PL.IMP. However, in the two tasks in this study there was not one response in which the traditional Acadian inflectional ending was used. According to French-language teachers in two different francophone high schools in north-eastern New Brunswick (the region of origin of half the students in the current study), *-ont* occurs very rarely in the written production of grade 10 students and not at all in the writing of grade 11 and 12 students, although both teachers mentioned that they had heard *-ont* in the oral production of their students (Natalie Chiasson-Albert, p.c.). And according to a French-language professor at

l'Université de Moncton, this inflectional suffix is used very rarely in writing by students, even those in their first course at university (FRAN 1903) and it never occurs in their writing by the time they have completed all required French-language courses. She noted that "Cela semble réservé à l'oral" ('This seems to be reserved for speech', E. Foëx, p.c.). This anecdotal evidence from both high-school and university teachers confirms the findings of this study: the traditional Acadian *-ont-3PL* does not occur in the written production of Acadian speakers.

With past participial forms of both regular and irregular verbs there were also errors due to homophony between the infinitive and past participle, and between the *passé simple* and the past participle, errors which were more prevalent with the first-year subjects. Lafontaine and Legros (1995) and Simard (1995) both attested to errors by Québec university students due to the homophonous infinitive *-er* and past participle *-é*.

Turning to past participial agreement, there were no significant differences between the groups with past participles conjugated with *avoir*, or with participles occurring with *être* with a masculine singular subject, both of which are the unmarked case. Fourth-year subjects were significantly more accurate with agreement in past participles occurring with *être* with feminine and plural subjects (although some did not include both markings in 3PL.F contexts). Both groups had a tendency to over-generalize the rule for past-participial agreement with verbs conjugated with *être* to verbs conjugated with *avoir*, making the past participle agree with the grammatical subject in number and/or gender. As mentioned in Section 2.2, this over-generalization was also found in Lafontaine and Legros' (1995) study of university students in Québec.

With subject-verb agreement there were two major reasons for the significant differences between the two groups:

1. the large number of errors made by the first year students due to homophony between 3SG and 3PL forms with the imperfect, the present and the conditional, what Fayol, Hupet and Largy (1999) referred to as "silent morphology";
2. "attraction" errors in $[_{DP}[_{DP}][_p[_{DP}]]]$ structures, where subjects made the verb agree with the DP in PP rather than with the head noun.

A number of researchers using different tasks and different groups of subjects found performance was more accurate when there was a phonological distinction between singular and plural (Largy, Fayol and Lemaire, 1996; Largy and Fayol, 2002; Largy, Cousin and Dédéyan 2005), and that subject-verb agreement errors are more likely in the context $[_{DP}[_{DP}]][_p[_{DP}]]$ (Fayol, Hupet and Largy 1999; Franck and Hupert 2001; Chanquoy and Alamargot 2002).

According to Largy, Cousin and Dédéyan (2005) unconscious access to memorized instances is more efficient than applying a rule: it is rapid and with a low cognitive load. They argued that the difference between novice and expert writers

is that the latter know when to look for errors and apply the rule, for example in constructions containing [_{DP} [_{DP}] [_{PP} [_P [_{DP}]]], by making use of monitoring strategies. Although both novice and expert writers may know the rule, only the expert has an efficient procedure for knowing when to apply it. The subjects in the study reported in this article, like the novice writers in Largy, Cousin and Dédéyan's (2005) study, were prone to "proximity" or "attraction" errors, but the first-year subjects made significantly more errors than the fourth-year subjects. This result suggests that they had not yet acquired fully automatic monitoring strategies for seeking out and verifying such errors, but that by fourth year the subjects' strategies and monitoring were more effective, although they were not yet experts.

Fayol (2003) maintained that agreement with nouns was easier to acquire and produce than subject-verb agreement because the former is conceptual (that is, it encodes the concept of number) while the latter is purely formal. He argued that there was purely formal motivation for agreement of adjectives with nouns, and that this agreement is acquired after singular-plural agreement but before subject-verb agreement because the relationship is more local. He also noted a frequency effect: *-s* marking plural on adjectives is more frequent than *-ent* marking plural on verbs, which also accounts for its earlier acquisition and fewer errors with adults. The subjects in this study had not completely mastered subject-verb agreement, which might, as Fayol suggested, be due to its relative infrequency in the input.

Largy, Fayol and Lemaire (1996) and Largy, Cousin and Dédéyan (2005) concluded that audible cues reduced error frequency with subject-verb agreement because there is no competition between homophonous inflectional suffixes. This was not the case in the present study: the majority of subject-verb agreement errors occurred when students used the *passé simple*, where the present and past forms differ (e.g., *fondit-3SG.PS* and *fondirent-3PL.PS* or *disparut-3SG.PS* and *disparurent-3PL.PS*). Subjects' errors are likely due to the fact that this verb form is rarely encountered even in written French at the university level, outside literature courses. Many subjects may have been unfamiliar with the past forms, and employed the unmarked 3SG as a default.

Homophony, between 3SG and 3PL forms, between past participles in *-u* and the homophonous 1/2/3SG.PS (*-us* and *-ut*) and between infinitives and past participles, accounts for a large number of errors in the present study. Researchers who have studied the acquisition and use of silent morphology in French have noted that automaticity plays a significant role; experienced writers can call upon rules (declarative knowledge) as well as memorized instances (procedural knowledge). Chanquoy and Alamargot (2002) maintained that expertise in writing entails activating knowledge of spelling, lexical items and syntax stored in long-term memory, but that access to this knowledge must be automatic before it can be used during the revision process, and that this knowledge interacts with working memory. Fayol, Hupet and Largy (1999) also maintained that for skilled writers, elements of orthographic spelling, such as subject-verb agreement is automatic. The higher accuracy rate by fourth-year subjects in three elements of orthographic spelling — conjuga-

tion in the *passé simple*, past-participial agreement and subject-verb agreement— supports these researchers' contention that exposure and practice can lead to more effective and automatic procedures in writing in French.

As mentioned in the Introduction, Lefrançois et al. (2005) was the first study in the French-speaking world to examine the effect of instruction on students' learning of Referential French. While they looked at short-term results and the results on this study are longer term, the findings are similar: there is an improvement in certain aspects of grammatical spelling after instruction and exposure to Referential French input. From the results of this study it can be inferred that explicit instruction in French, along with four years of exposure to Referential French in their classes had a positive effect on subjects' performance with certain aspects of grammatical spelling.

Based on these results it is not possible to determine whether this learning is due to explicit instruction and correction, or input in their course lectures and readings. The fact that the control group in Lefrançois et al also improved from pre- to post-test suggests that written input in a post-secondary environment, even without instruction, has a positive effect on students' learning of Referential French.

Research on the effects of form-focused instruction in learning a second *language* suggests that both play a role, and it likely that the same is true in learning a second *variety*. Longitudinal studies of subjects' university-level writing would give a fuller picture of the subjects' mastery of Referential French, as would short-term classroom-based studies on the effect of instruction. Earlier studies on the effect of instruction on learning a second variety showed "modestly successful results", but such studies were abandoned in the late 1970s along with the L2 teaching approach to second-dialect learning (Siegel 2003:206).

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APPENDIX 1:**ENGLISH TRANSLATION OF THE CONTROLLED-PRODUCTION TASK**

Directions: Carefully read the passage below. Fill in the blanks with an appropriate form of the verb in parentheses. You may need to add an auxiliary verb or a reflexive pronoun. Sometimes there may be more than one possibility, and several verb tenses may be acceptable. Here are some examples:

John lost OR has lost (lose) his book. I am going to give OR will give him mine. His book was stolen (steal) yesterday. He SE got angry

...

(... In a few minutes the roofs of the houses on Long's Hill _____ (burn), and all of the windows _____ (break) because of the heat. Smoke _____ (rise) from the buildings and _____ (spread) in the sky. Soon the fire _____ (arrive) at the beautiful Anglican Cathedral. The metal around the windows _____ (melt) because of the intense heat. ...)

APPENDIX 2:**CONTROLLED-PRODUCTION TASK****LE GRAND FEU DE 1892 À ST-JEAN TERRE-NEUVE**

Le "Grand Feu" _____ (produire) à St-Jean Terre-neuve le 8 juillet 1892. Il _____ (commencer) dans l'étable de Timothy O'Brien's, au coin de la rue Freshwater et de la rue Pennywell. Le feu _____ (arriver) parce qu'une pipe allumée _____ (tomber) dans le foin.

Bientôt une dizaine de maisons _____ (brûler) sur la rue Freshwater, ensuite une vingtaine. L'intensité des flammes _____ (augmenter) et le vent rugissant _____ (lancer) les étincelles brûlantes de tous côtés. Le feu _____ (étendre) très rapidement. Les alarmes d'incendie _____ (sonner) et les gens _____ (crier).

En quelques minutes les toits des maisons à la Colline de Long _____ (brûler) et toutes les fenêtres _____ (briser) à cause de la chaleur. La fumée _____ (monter) autour des édifices et _____ (dispenser) dans le ciel. Le feu _____ (arriver) bientôt à la belle Cathédrale anglicane. Le métal autour des vitraux _____ (fondre) à cause de la chaleur intense. Ensuite, avec un grand fracas, le haut toit de la cathédrale _____ (tomber). Enfin, tout le beau vitrail _____ (briser). Le feu _____ (descendre) jusqu'à la rue Duckworth et ensuite jusqu' à la rue Water. Tous les magasins _____ (disparaître) les uns après les autres. Aucun magasin _____ (rester).

À ce moment, je _____ (rendre compte) que la rue où je _____

(habiter) _____ (probablement toucher) par la destruction. Je _____ (courir) chez moi. Quand je _____ (arriver) à Devon Row, mes voisins _____ (travailler) pour arrêter la propagation du feu. Plusieurs _____ (arroser) les murs des maisons avec de l'eau. D'autres _____ (balayer) les étincelles quand elles _____ (tomber) sur les toits. Nous _____ (craindre) que les toits _____ (tomber), mais cela _____ (ne pas produire). Enfin, le feu _____ (terminer) douze heures après qu'il _____ (commencer). Le lendemain matin, je _____ (promener) autour de la scène horrible dans la ville. La vision de la ville brûlante _____ (effrayer). La fumée épaisse _____ (disparaître) mais l'air _____ (sentir) mauvais pendant quelques mois après le feu.

Seulement deux personnes _____ (mourir) dans le Grand Feu de 1892. Pourtant, la perte de la propriété a été considérable et beaucoup de monde _____ (ne pas habiter) leurs maisons pendant plusieurs mois. Presque tous les commerces majeurs dans la ville _____ (détruire). Tout le monde _____ (espérer) qu'un tel feu _____ (arriver) jamais de nouveau à St.-Jean.

MERCI DE NOUVEAU DE VOTRE COLLABORATION PRÉCIEUSE

(Texte adapté d'une description du "Great Fire de 1892" qui a été écrite par le Révérend Moses Harvey et publiée dans *The Encyclopedia of Newfoundland*, Vol. 1, p. 108-111.)