

The Coupling of Second Language Learning Motivation and Achievement According to Gender

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Abstract—Despite research investigating gender differences in second language motivation, the examination of such differences with a coupling of motivation and achievement evidence is less common. Given that increased motivation is a contributory factor of achievement (e.g., Schmidt et al., 2001) where gender can also be an influencing variable, it is important to examine the influence of gender on motivation and proficiency in second language education. The following article explores the motivation of 87 Grade 6 early French immersion students through the means of a questionnaire, grounded in Gardner’s socio-educational (1985) and MacIntyre’s (1994) willingness to communicate models. Through multiple regression analysis, the questionnaire findings were examined to see, which if any, variables predicted French proficiency as measured through a multi-skills French test. The female participants outperformed the males in French reading, writing and speaking, whereas only one significant difference was found on the questionnaire items (i.e., language awareness). Although the multiple regression analyses showed both increases and decreases in French achievement according to questionnaire items, where there were significant differences being female was associated with increases in French achievement. These findings offer a gateway to further research, as educators strive to offer quality second language education to all.

Index Terms—second language motivation, second language education, French as a second language

I. INTRODUCTION

Recent statistics and trends evidence an overrepresentation of females in Canadian French second language (FSL) classrooms where the study of a second language is optional. In addition, these discrepancies in enrolment continue to grow as students progress in their studies (e.g., Ottawa District School Board, 2007; Toronto District School Board, 2010). Research has found that male disinterest and lack of motivation are influencing factors that lead to males to withdraw from FSL studies in Canada.

Numerous second language publications (e.g., Kissau & Wierzalis, 2008; van der Slik, van Hout & Schepens, 2015) have found that macro- level, societal, and micro-level, classroom related factors influence males differently than females. Males, for example, have revealed lesser integrative and instrumental orientations, intrinsic motivation, self-regulation, a weaker L2 self-concept, and an elevated willingness to communicate (WTC) (e.g., Henry, 2009; D’Haenens & De Fraine & Pinxten & Van Damme, 2013). Qualitative data have also showed that while societal perceptions may attract women towards languages, they can, at times, repel their male counterparts. In particular, the attraction towards a community of speakers, the escape of social inferiority, the view that French is a feminine language, and subsequently, that this domain of study is inherently unmanly and “girly” (Kissau & Wierzalis, 2008).

In response to the dearth of research pertaining to gendered achievement in FSL and its influential factors, this study examines male and females’ motivational variables and achievement amongst Grade 6 French immersion (FI) students in Ontario, Canada.

II. THEORETICAL FRAMEWORK

In this article, motivation, defined as a student’s inclination towards language learning, is recognized as being influenced by a variety of factors. There were two motivation theories used in the conception of this study’s questionnaire, presenting a comprehensive conceptual framework. The first being Gardner’s model (Gardner, 2010; Gardner & Lambert, 1959; 1972) that highlights integrative and instrumental orientations. An integrative motivational orientation considers the degree to which the learner has a desire to integrate into the community of that target language and has positive attitudes towards that target language group (Hashimoto, 2002). An instrumental motivation orientation represents the practical desire to learn a language, such as obtaining a job or receiving a higher salary. In addition, language anxiety was added as a variable as identified as influential by Gardner’s later work.

This study's questionnaire also considered Macintyre's WTC, a heuristic pyramid detailing the precursory variables to L2 communication; linguistic, social, psychological, and communicative. In this study, WTC was measured to quantify students' attitudes to the learning situation, oral, receptive, and writing WTC.

For the purposes of this study, gender will be defined in terms of the biological classification of male or female.

Enrolment and Attrition

Canadian Parents for French, a national organization devoted to the promotion of FSL, reported that all FI programs face attrition (Canadian Parents for French, 2005). Through the years of 1999-2004, FI attrition in Grade 9 was recorded as 11% for female students, while 13.8% for male students. Later in Grade 12, the attrition percentage amongst FI students climbed to 14.6% for males, while it decreased to 9% for females.

School boards have reported a similar trend in Ontario, the context of this present study. The Ottawa Carlton District School Board (2007) revealed 10% more female students enrolled in their early FI programs, a gender disparity ranging from 12 to 18% in middle FI and one of 26% in the late FI program. In southern Ontario, the Toronto District School Board (2010) also revealed a disparity in FSL enrolment according to gender. Through Kindergarten to Grade 6 there were 16% more females, in Grades 7 and 8, 20% more females and in Grades 9-12, 24% more females than males. These board statistics, accompanied by the Canadian Parents for French data, suggest that male participation in FSL programming is lower at the onset of the program and continues to decline. This reality can be attributed to a number of societal and classroom influences as discussed in the following research.

III. LITERATURE REVIEW

A. *Gendered Second Language Learning Motivations in Canada*

Kissau (2006a, 2006b, 2007, 2008) published a sequence of research articles from his doctoral research that explored the reasons for gender disparities in FSL programs in Canada. In particular, Kissau (2006a) used a questionnaire and semi-structured interviews with 490 Grade 9 core FSL¹ students to examine student motivation. Results were analyzed to find the best predictors of the gender of the student. The variable, desire to learn FSL, proved to be the best predictor of one's gender, as females responded more positively than males. Other variables that strongly predicted the gender of the respondent was one's motivational intensity and integrative orientation. Again, females responded much more positively to these two items. The interviews conducted with students and teachers confirmed findings in the questionnaire. In particular, the participants cited societal perceptions such as French being a female domain as influential to their decisions to continue second language studies.

The next research publication by Kissau (2006b) used the same participant pool and method to analyze the motivations of females and males to study of FSL. The results of this study revealed that females were more integratively, instrumentally, and intrinsically oriented than their male counterparts. Moreover, males identified having lower feelings of self-efficacy, more negative perceptions of FSL, and receiving less encouragement to continue studies.

Kissau (2007) explored if encouragement to pursue FSL studies varied in accordance with gender. The study looked at parental, peer, and teacher encouragement. In all three cases, females identified as receiving more parental, peer, and teacher encouragement than their male classmates. In fact, teacher and parental encouragement was functionally related to student's continuation plans of study. In addition, the majority of interviewed teachers revealed that guidance departments discouraged male students from FSL studies.

In a later study, Kissau and Wierzalis (2008) emphasized that for a male to openly like FSL would contradict the dominant model of hegemonic masculinity, especially as they quantified it a "girly" subject for "wusses." As such, Kissau and Wierzalis purported that macro-level factors, societal perceptions, have an immense effect on micro-level settings, the classroom.

Another work in Kissau's (2008) body of research measured motivation through three sub-scales: challenge, mastery, and curiosity. Each of these sub-scales was found to be functionally related to one's continuation plans of FSL study. The sub-scale of curiosity revealed a gender differential with females recording greater curiosity than males. With reference to intrinsic and extrinsic motivation, six of the eight students interviewed noted that males need greater enticement to work (i.e., external rewards of food and competition). In sum, Kissau's work demonstrated that the male students in this study manifested less intrinsic motivation and frequent extrinsically regulated behaviours.

Seeking to further explore male disinterest in language learning, Kissau and Turnbull (2008) examined various influential variables. The researchers purported that male disinterest stemmed from educational practice (i.e., repetition, grammar-translation, an audio-lingual approach, and study topics). With reference to environmental factors, Kissau and Turnbull asserted that the gross underrepresentation (i.e., 10.7%) (Elementary Teachers' Federation of Ontario, 2006), of males in the FSL teaching profession could also be a contributing factor to male students' disinterest. In order to respond to the issue of male disinterest in the FSL classroom, the authors emphasized the need for greater and immediate research in this area.

¹ Core French is the study of French for approximately one forty-minute class per day.

Further to the above research that examined motivational variables linked solely to Gardner's work, other researchers have added the WTC framework to inform their research in second language motivation. Baker and MacIntyre (2000) conducted a study of 71 FI and 124 non-immersion students in Grades 9 through 12 to analyze the linguistic outcomes and influencing WTC variables such as gender differences. They found that non-immersion males scored significantly lower on Gardner's Attitude Motivation Index than the non-immersion females. While, immersion males and females scored similarly. In particular, immersion males indicated a strong instrumental orientation toward the French language, in which their proficiency would help in job acquisition.

In another study, MacIntyre, Baker, Clément and Donovan (2003) further probed into the factors influencing WTC, and how variables gender and age interact with attitudes and motivations. In this study, a questionnaire was given to 268 FI students in Grades 7, 8, and 9. Firstly, in terms of WTC and anxiety levels, the male students scored fairly consistently in all of the three Grades whereas the female students showed an increase in WTC in higher Grades of study, in addition to a reduced level of anxiety over time. Such increases over time may be influential in females continuing to study FSL to a greater extent than males.

B. Gendered Second Language Learning Motivations: International

Second language motivation and the potential influential variable of gender have been examined beyond the context of Canada. In the United States, Kissau, Quach, and Wang (2009) studied the impact of single-sex instruction in a Level 1 Spanish course. Pre- and post- questionnaire findings revealed that overall second language motivation, motivational intensity, desire to learn Spanish, and positive attitudes towards Spanish decreased over the four-month period. Although there were no differences noted between genders, interviews showed that female students perceived themselves as much more integratively and instrumentally oriented than the male students. In addition, female students in the single-sex instruction classroom exhibited a greater interest than the all male class in learning Spanish for communication purposes and career advancement.

In a longitudinal study, Henry (2009) analyzed how gender impacted motivation and second language self-concept development. This Swedish study comprised of a multi-item questionnaire administered to students in Grade 6, and again in Grade 9 pertaining to their English language-learning motivations. The results indicated that over time, females' conception of their ideal L2 selves strengthened, while that of the males diminished. In addition, males reported a lower level of interest in the English whereas female interest increased. Regarding attitudes towards the learning situation, both female and male students experienced a significant drop over the duration of study. Henry hypothesized that while enthusiasm is initially expressed by both genders, as time persists, for many students, language-learning expectations are not met in the traditional classroom setting. Henry (2009) suggests that these unmet expectations apply more so to male students, as after second language studies were no longer mandatory, they were significantly overrepresented in the non-continuation group.

In another European context, Hadermann and Ruyffelaert (2012) examined motivation to learn FSL according to the variables of gender and age by means of a questionnaire administered to secondary students in Flanders, Belgium. The results of the data demonstrated that females and males possessed quite different orientations and attitudes towards the learning of FSL with 98% of female students citing that French was a beautiful language, while only 67% of males shared this view. Additionally, the analysis of male and females' motives to learn FSL showed differentiation. The most frequently cited motive (87%) amongst females was learning to "expand the boundaries of their social settings." Whilst males most often cited "to find a good employment" as their primary motive (78%). The second most cited motive by females was "to find a good employment" (86%), when for males it was "to obtain good grades at school" (71%). Overall, females reported a higher integrative motivation orientation toward FSL learning, whereas males reported a greater instrumental motivation.

In Turkey, Polat (2010) examined motivational variance according to gender, through four self-regulatory forms of motivation: external regulation, introjection, identification and integrated orientation (Deci & Ryan, 1985). The results of the questionnaire indicated that where the Kurdish and Armenian middle and high school male students completed a language task due to obligation or to avoid anxiety or guilt (introjection orientation), it negatively impacted their capacity to produce a native-like accent. Whereas, when males completed a language task in which they had attributed importance (integrated orientation), this had a positive impact on their accent production. The only significant motivational predictor for female students was integrated orientation, and that the more value females ascribed to a language learning task, the better their accent production.

A study (Lai, 2007) conducted in postcolonial Hong Kong investigated attitudes of males and females towards their three official languages. The first stage of the study used a questionnaire to determine the integrative and instrumental orientations towards the learning of each three national languages: Cantonese, English and Putonghua. The findings revealed that females held more positive attitudes in both integrative and instrumental inclinations towards English and Putonghua. In comparison, the males harboured more positive attitudes both integratively and instrumentally towards their vernacular, Cantonese. Although males showed pragmatic attraction towards English, they were more drawn to their mother tongue as it was convenient and easy. The interviews conducted elaborated on the integrative attitudes of the female respondents. They expressed admiration for English speakers, their Western society, and also perceived them as amicable, attractive and competent. According to female and male responses, females were more conscious and

active in preparing for their futures. Respondents remarked that males were disinterested when it wasn't foreseen as necessary or immediately beneficial.

Dörnyei (2006) also revealed differing perceptions according to the language to be learned. This large-scale quantitative study involved 4,756 pupils in 1993 and 3,828 pupils in 1999, all of whom were 13 or 14 years old. Through answering the multi-item questionnaire, participants judged German as a masculine language, Italian and French as feminine, and English as neutral. These results may offer insight into why both males and females recorded similar attitudes towards English language learning in Lai's research. Furthermore, the fact that males responded with greater instrumental inclinations could be rooted in the traditional belief that males are assumed to be the family head and be the chief financial contributor (Kobayashi, 2002). This role is juxtaposed to the conventional ideal that a woman is to be socially and culturally proficient, in terms of one's career but also through child development and cultivation.

To summarize, where there were significant differences between genders in the Canadian research cited above, females were found to be more integratively and intrinsically motivated in the core FSL context where there were no significant differences in the FI context. The French language being a variable in and of itself was confirmed in both Canadian and international research showing society to judge FSL as a more feminine subject. Another theme revealed across studies was the decline in motivation over time for male students. The cited research that linked lower male motivation to educational practice and the differing results in core FSL and FI contexts where different delivery methods are used provides rationale for this study to explore motivation in FI at the Grade 6 level.

C. *Second Language Achievement According to Gender*

In addition to gendered motivation towards second language education, researchers have also examined second language achievement according to gender. However, there is not a sizeable quantity of research pertaining to second language achievement according to gender, especially in the Canadian context.

Looking more broadly and to more dated research then, one study of first-year university students in Hong Kong, sought to evaluate pupil's English language proficiency (Boyle, 1987). In the multi-item test, females demonstrated superiority over men in their general linguistic abilities. The items included: reading vocabulary, listening passage, listening conversation, dictation, stress, meaning through stress/intonation, syntax, and listening vocabulary. The only item of the evaluation in which males performed better was listening vocabulary. One possible explanation for this gender differential is that females develop their output and verbal expression in their L1 at a quicker rate than males. Consequently, males become more and longer dependent on listening discrimination, rendering them more proficient in listening competencies (Brimer, 1969).

A large-scale study by Green and Oxford (1995) looked into language-learning strategy use and its relation to gender and second language proficiency. Situated in Puerto Rico, 374 university students of three proficiency levels (i.e., intermediate, basic, pre-basic) completed an *English as Second Language Achievement Test*. This test measured strategy use through the grammatical, writing, and reading comprehension questions. The results showed that successful language learners used greater language learning strategies. Moreover, females demonstrated more overall strategy use than the male students. Regardless of gender, participants who used higher order cognitive strategies in their language learning, were more proficient and in the more advanced language groupings. Also, despite females using more language learning strategies, females were not overrepresented in the advanced level courses. Finally, it is emphasized the complexity of language learning strategies and that even though they generally correlate with L2 achievement, gaining proficiency can also lead to the abandonment of L2 strategy use.

In 1998, Tae-II Pae conducted a study of 14,000 Korean students in their English language acquisition. The participants ranging from 17-19 years old completed an English Reading Comprehension subtest of the larger Korean National Entrance Examination for post-secondary studies. The results evidenced that females underperformed and experienced difficulty with the items of "logical inference", which required pupils to deduce what was to come after a reading passage. While females were more successful in the test item of "mood/impression/tone". Pae highlighted that this disparity could be reflective of cultural practices in which the education system pushes males to be more independent and females to be more dependent (Pae, 2004).

In addition to gender influencing second language achievement, a variety of factors are recognized as contributing to second language acquisition. These factors include gender differences but also consist of age difference, cognitive differences, personality differences, learning motivations, and learning strategy differences amongst others (Ellis, 1994). Therefore, although gender is examined as one possible predictor of second language achievement, it is important to keep in mind that a variety of individual characteristics influence achievement and acquisition comprehensively.

In the Netherlands, van der Silk, van Hout, and Schepens (2015) explored gender differences in the learning of Dutch as a second language of immigrants aged 18-50 years old using a multi-skills test. Despite the differences in participants (e.g., age, country of origin), the achievement gap according to gender remained. The speaking and writing results revealed female learners to outperform the males by an average of 8 points. Reading proficiency results, however, showed males to score two points higher, on average, over females. Finally, listening proficiency did not differ based on gender. The authors attributed that these differences in speaking and writing achievement could be attributed to the fact that women more often reported using metacognitive and cognitive strategies, as outlined in previous studies (e.g., Green & Oxford, 1995, Oxford & Young, 1997). Such strategy use may be congruent with the higher achievement of

females on the productive test components. However, as the authors reiterated, more research is necessary on the linguistic and cognitive processes in females and males.

The research cited above shows that females and males perform differently on second language proficiency measures. Greater understanding of the influential variables may provide information with which educators can respond to better meet the needs of male students in the context of FSL study in Canada. This study therefore examined both motivation and achievement of Grade 6 FI students, comparing their results and linking the results to FSL achievement.

IV. METHODS

This study used mixed-methods to explore the role of gender on second language motivation and achievement. The research design was a concurrent, non-experimental case study. The study was conducted in an urban publish school setting where FI is an optional program.

A. Instruments

Data were collected for this study using two instruments: a questionnaire and an FSL test. The questionnaire was created for the purpose of this study in order to examine students' motivation to study FSL using Gardner (1959, 1972, 1985, 2010) and MacIntyre et al.'s (1994, 2003) frameworks. The number of items pertaining to each criterion is described in the findings section below. The students completed the questionnaire online under the supervision of their teacher.

The participants also completed a four-skill (listening, speaking, reading and writing) FSL test: *Diplôme d'études en langue française* (DELF)A2 junior test (Centre international d'études pédagogiques, 2012), under the direction of a DELF trained team of researchers and research assistants. The same team marked the tests and established an acceptable inter rater reliability score (ranging from .76 to 1.00) using the Pearson's r correlation (Salkind, 2010).

B. Participants

The participants in this study were 87 Grade 6 early FI students, of whom 58 were female and 29 were male. They came from ten different classes in two different schools within the same region and board of education. The students began their education in English and began FI in Grade 1. Given that only a randomly selected subsample of participants completed the FSL speaking component, the results below were taken from the larger participant pool keeping only those who had completed all four FSL test components.

V. FINDINGS

Prior to exploring gender differences, principal component analyses were conducted on the test components and questionnaire items to determine if the associated variables could be aggregated. These analyses determined that the multiple items pertaining to integrative motivation: climate (3), attitude (3), and motivation to learn FSL (5), instrumental motivation (4), attitude to the learning situation (3), language anxiety (6), willingness to communicate orally (5), receptively (6), and in writing (5), language awareness (4), and strategy use (5), as well as FSL listening (3), speaking (4), reading (3) and writing (2) components could be aggregated into one composite variable per criterion.

A. Gender Differences on Proficiency Measures

Independent-samples t tests were conducted to examine gender differences on FSL scores and questionnaire items. These results are presented in Tables 1 and 2 below. Table 1 presents the results for FSL achievement scores by gender where there were statistically significant differences by gender for the following: reading: $t(85) = -2.71, p < .01, d = 0.59$, where females had a significantly higher mean score ($M = 14.49, SD = 4.39$) than males ($M = 11.81, SD = 4.28$); writing: $t(85) = -5.87, p < .001, d = 1.27$, where females had a significantly higher mean score ($M = 17.66, SD = 3.37$) than males ($M = 12.71, SD = 4.33$) and speaking: $t(37.58) = -2.53, p < .05, d = 0.83$, where females had a significantly higher mean score ($M = 20.64, SD = 2.78$) than males ($M = 18.19, SD = 4.82$).

TABLE 1
INDEPENDENT-SAMPLES T TESTS FOR FSL ACHIEVEMENT SCORES BY GENDER

Achievement Test	Gender	N	M	SD	t	df	Cohen's d
Listening	Male	29	14.03	4.80	-1.70	85	0.37
	Female	58	15.56	3.45			
Reading	Male	29	11.81	4.28	-2.71**	85	0.59
	Female	58	14.49	4.39			
Writing	Male	29	12.71	4.33	-5.87***	85	1.27
	Female	58	17.66	3.37			
Speaking	Male	29	18.19	4.82	-2.53*	37.58	0.83
	Female	58	20.64	2.78			
	Female	58	68.35	10.41			

Note: Cohen's *d*: 0.2= small; 0.5=medium; 0.8=large

The results are presented in Table 2 for questionnaire items by gender where there were statistically significant differences by gender on the language awareness variable: $t(45.20) = 2.19, p < .05, d = 0.65$, where females had a significantly lower mean score ($M = 7.41, SD = 3.96$) than males ($M = 9.79, SD = 5.14$).

TABLE 2
INDEPENDENT-SAMPLES T TESTS FOR QUESTIONNAIRE ITEMS BY GENDER

Achievement Test	Gender	N	M	SD	t	df	Cohen's d
Integrative (climate)	Male	29	9.21	1.93	-.48	85	0.10
	Female	58	9.38	1.39			
Integrative (attitude)	Male	29	3.62	1.12	1.56	85	0.34
	Female	58	3.31	0.73			
Instrumental	Male	29	10.69	1.42	1.22	85	0.26
	Female	58	10.33	1.25			
Motivation_to_learn FSL	Male	29	16.52	1.86	.12	85	0.03
	Female	58	16.47	2.01			
Attitude to the learning situation	Male	29	8.10	2.08	-.76	85	0.16
	Female	58	8.45	1.98			
Language anxiety	Male	29	18.86	3.47	1.07	85	0.23
	Female	58	18.00	3.56			
WTC oral	Male	29	15.72	3.59	.42	85	0.09
	Female	58	15.45	2.49			
WTC_receptive	Male	29	18.41	4.48	.84	85	0.18
	Female	58	17.79	2.47			
WTC_writing	Male	28	14.54	4.33	-.39	85	0.08
	Female	58	14.83	2.56			
Language awareness	Male	29	9.79	5.14	2.19*	45.20	0.65
	Female	58	7.41	3.96			
Strategy_use	Male	29	14.21	4.89	1.12	85	0.24
	Female	58	13.16	3.68			

Note: Cohen's *d*: 0.2= small; 0.5=medium; 0.8=large

To assess the contribution of gender and survey items to the prediction of FSL proficiency measures, multiple linear regression analyses were conducted with the results presented in Tables 3 and 4. As shown in Table 3, all models were significant and the amount of variance explained varied, ranging from $R^2=.32$ to $R^2=.49$. Specifically, the predictors in this model accounted for 49% of the variance in FSL listening $F(9,76) = 7.43, p < 0.001$, 41% of the variance in FSL reading $F(5, 81) = 9.11, p < 0.001$, 47% of the variance in FSL writing $F(5, 81) = 16.14, p < 0.001$, and 25% of the variance in FSL speaking $F(4, 79) = 9.84, p < 0.001$.

TABLE 3
MODEL SIGNIFICANCE TESTS

<u>Dependent variable</u>	<u>R²</u>	<u>Adjusted R²</u>	<u>F</u>	<u>degrees of freedom</u>
FSL listening***	.47	.41	7.43	9,76
FSL reading***	.36	.32	9.11	5,81
FSL writing***	.50	.47	16.14	5,81
FSL speaking***	.28	.25	7.80	4,79

* $p < .05$; ** $p < .01$; *** $p < .001$

The regression coefficients are shown in Table 4 for each dependent variable and indicate the relative value of each statistically significant predictor. Specifically for every one unit increase in Integrative (attitude) FSL listening decreases by 1.68 points. For every one unit increase in language awareness, FSL reading decreases by 0.23 points. For every one unit increase in attitude to the learning situation, FSL listening increases by 0.69 points. For every one unit increase in WTC: writing, FSL listening increases by 0.69 points. In contrast, for every one unit increase in integrative (climate), FSL listening decreases by 0.59 points. For every one unit increase in WTC: receptive, FSL listening decreases by 0.63 points and FSL speaking increases by 0.34 points.

Being female compared to male results in a 3.39 point increase in FSL writing, and 2.43 point increase in FSL speaking. Being female compared to male did not result in a significant increase in FSL listening or reading.

TABLE 4
REGRESSION COEFFICIENTS FOR QUESTIONNAIRE ITEMS AND GENDER ON EACH MEASURE OF FSL ACHIEVEMENT

	<u>FSL Listening</u>	<u>FSL Reading</u>	<u>FSL Writing</u>	<u>FSL Speaking</u>
Intercept	17.96***	12.78***	3.86	12.98***
Integrative Attitude	-1.68**			
Language awareness		-0.23*		
Attitude to the learning situation	0.69**			
Integrative (climate)	-0.59**			
WTC_writing	0.69**			
WTC_receptive	-0.63**			0.34**
Female	-0.90	1.19	3.39***	2.43**
N	86	87	87	84
Adjusted R ²	.41	.32	.47	.25

* $p < .05$; ** $p < .01$; *** $p < .001$

In summary, although the female participants outperformed the males in FSL reading, writing and speaking, only one significant difference was found on the questionnaire items (i.e., language awareness). Although the multiple regression analyses showed both increases and decreases in FSL achievement according to questionnaire items, where there were significant differences being female was associated with increases in FSL achievement.

VI. DISCUSSION

Although the majority of previously published research as cited above showed females to be more motivated to learn second languages in general and FSL more specifically, this study did not reveal differences in motivational variables according to gender. These motivational findings are congruent with other research conducted in the FI context in Canada. It is therefore perhaps the teaching methods used in FI and the delivery of content through subject areas that

afford males similar motivation to females not demonstrated in other contexts (i.e., core French). Alternatively, considering the younger participants in this study as compared to Kissau's work, perhaps this lack of motivational difference can be attributed to the age of the participants in that they may not yet be conscious of societal perceptions and any domain as being feminine or masculine in nature.

The only questionnaire item that revealed a difference was language awareness with females showing less language awareness. Given that language awareness was greater for males but associated with a decrease in FSL reading has also been revealed elsewhere in FI research in Canada (Mady, 2017) where language awareness is associated with a decrease in achievement. On one hand, making use of language awareness may be task dependent (Bialystok, 1988, 2001, 2008), thereby suggesting that the test in this study did not require the use of such skills. On the other hand, given that the female participants outperformed the male participants in FSL reading underscores the importance of further examination of the language awareness variable in the FI context in particular where use of other language knowledge may be discouraged (Dailey-O'Cain & Turnbull, 2009).

In addition, as the participants in this study are in elementary studies, and many of the cited research studies provided details for older students, this may, in part, account for this study's different results in motivation as compared to some other studies. The potential influential variable of declining motivation over time is congruent with enrolment in FSL programs that declines with overtime and is associated with the augmenting level of complexity, boredom, traditional classroom setting learning, and instructors. In addition, the societal perceptions, female overrepresentation in the staff and student bodies, and peer influence may become more influential with age. As noted in Kissau's doctoral work, continuation plans were functionally correlated to encouragement. Such findings highlight the importance for educational stakeholders to consider means by which to maintain male student interest, in particular as age increases.

Congruent with other research findings, this study found that females attained higher scores than their male counterparts in general and more specifically, in the domains of reading, writing and speaking. The only linguistic criterion in which males and females obtained similar results was listening. Such results are consistent with past research that found females to outperform on productive language skills (e.g. Boyle, 1987, Schepens, van der Slik & van Hout, 2015) in particular. Past research suggests that such enhanced female performance on speaking components may be due to a more advanced rate in terms of verbal, pronunciation, hearing and auditory competencies, which corresponds to the superior oral performance of female students. Whereas, receptive communications of reading and listening seem to vary considerably according to the study. Where this study's findings revealed males to outperform in reading, van der Slik, van Hout, and Schepens also evidenced males scoring slightly higher. Although these inconsistencies could be attributed to differing tests, linguistic pedagogy, educational programming, regional contexts, and/or learning settings, amongst other variables, highlighting such trends may provide encouragement for second language educators to try a variety of means to support their male students in areas of language production in particular.

This study, in congruence with other research, provides additional findings that show females to outperform males in second language learning with multiple regression analysis showing the female gender to be a positive predictor of productive language skills in particular. However, the results did not show females to be more motivated. In fact, where motivational factors influenced achievement they had both advantageous and disadvantageous impacts. Although these findings highlight the complexity of second language motivation and its relationship with achievement, they also provide information for educators to consider and areas on which to focus with the view to improve male achievement in FSL in Canada which then may lead to greater retention. These data indicated areas that can be better addressed on the micro-level setting of the classroom through enhanced pedagogy. For example, a greater focus on productive skills and strategies to support instruction may prove beneficial. With regards to language awareness, these findings reinforce the importance of explicitly teaching strategies that incite higher order thinking capacities such as metacognition, critical thinking and creativity. In fact, Moore (2006) and Castelotti and Moore (2005) underscore the need for second language educators to teach metacognition in order for students to reap the rewards of its use.

This study also provides impetus for additional research to examine the impact of motivation on FSL achievement. The achievement test results indicate that females outperformed their male counterparts in three of the four skills: speaking, writing and reading. While these data align for the most part with existing knowledge on the topic, it bodes the question as to why these discrepancies exist so as to be able to address them. This work therefore serves as a gateway to additional study and the search for a more profound understanding of the topic.

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