The second language acquisition of French immersion learners: Investigating the variables influencing motivation and achievement

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The Second Language Acquisition of French Immersion Learners: Investigating the Variables Influencing Motivation and Achievement

by:
Carolyn Marangelli

A Thesis
Submitted to the Faculty of Graduate Studies and Research Through the Faculty of Education
In Partial Fulfillment of the Requirements for the degree of Master of Education at the University of Windsor

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ABSTRACT

The purpose of this study was to investigate the relationships between attitudes, motivational variables and achievement in 53 grade six French Immersion (FI) students from four elementary FI schools. Students completed surveys to measure motivational variables, as well as a French achievement test and final report card grades for French Language Arts. The statistical tests included correlational analysis, discriminant function analysis and regression analysis. Attitudes towards French, desire to learn French, interest in foreign languages and motivational intensity all correlated positively with achievement. High French use anxiety correlated negatively with achievement. Contrary to earlier studies, integrative motivation did not correlate significantly with achievement. Regression analysis indicated that anxiety rather than motivation was the best predictor of achievement. The results of this study supported many of the relationships of the Socio-Educational Model.
To William and Camilla, for all your patience, love and support.
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Chapter I

Introduction

Motivation is a popular topic in learning theory. It is seen as the driving force behind efforts that learners expend in a learning situation. Unmotivated learners are often unsuccessful learners, as they have no drive or reason to succeed in their learning. Motivation is necessary for goal setting and achieving in all aspects of life.

Beyond general learning theory, motivation has been the focus of much research in second language (L2) learning over the past thirty years. Underlying much of this research is the belief that motivation in L2 learning is in some ways different from other types of subject learning. Following 12 years of research, Gardner and Lambert (1972) came to the conclusion that L2 learning is distinct in that it requires the learner to identify with another language community. The attitudes of the learner towards this community are felt to influence L2 achievement.

Gardner (1985, p.10) defines L2 motivation as "the combination of effort plus desire to achieve the goal of learning the language, plus favourable attitudes towards learning the language." The learner's attitudes contribute to an initial orientation towards learning the L2, which may be "integrative" or "instrumental." The orientation impacts upon motivation. Motivation then influences achievement.

An integrative orientation, as defined by Lambert (1974, p.98), involves an interest in learning the L2 because of "a sincere and personal interest in the people and culture represented by the other language group." He defines an instrumental orientation, as "the practical value and advantage of learning a new language."

Integrative motivation, according to Gardner (1985), is a composite measure of the
attitudes towards the L2 community, interest in foreign languages, integrative orientation, attitudes towards the learning situation, desire to learn the L2 and attitudes towards learning the L2. Instrumental motivation, like instrumental orientation, is the learner's drive to learn an L2 for practical purposes, such as being able to travel or get a better job.

Gardner's (1985) Socio-Educational Model of second language learning followed years of research regarding individual learner variables, such as attitudes and motivation, and L2 achievement. His model underwent some modifications, to take into account results from related research (see Gardner, 1985); however his 1985 model is most often cited and replicated by researchers investigating the role of motivation and L2 acquisition.

In this model, the learner's cultural beliefs and attitudes positively influence the learner's integrative motivation, which has a direct relationship with achievement in L2. This relationship has been verified by numerous studies (Abu-Rabia & Feuerverger, 1996; Cloutier, 1995; Gardner, Tremblay, & Masgoret, 1997; Gardner, Masgoret & Tremblay, 1999; Gardner, Tremblay, & Masgoret, 1997; Gardner, Tremblay, & Masgoret, 1997; Tremblay & Gardner, 1995) to be highlighted later in this paper. The opposite has been found as well, with negative attitudes towards a cultural group correlating positively with L2 achievement. A study by Oller, Baca and Vigil (1977) found that Mexican women in California who rated Anglo people negatively were more successful in learning English than those who rated Anglo people positively. Oller and Perkins (1978) suggested that this phenomenon occurs as the L2 learners wish to learn the L2 to manipulate the people of the target
community. They defined this type of motivation as "Machiavellian motivation."

Gardner's early research found little support for a relationship between instrumental motivation and L2 achievement. Other research has found such a relationship in cultures where the learners had little or no contact with the target language and simply needed to learn the language for instrumental purposes (e.g. Japanese student learns English with business degree to ensure ability to communicate with other businesses overseas). In these cases instrumental motivation has been correlated positively with L2 achievement. More recently, Gardner has demonstrated support for instrumental motivation and L2 learning, stating it can have a role in L2 achievement along with integrative motivation. (Gardner & MacIntyre, 1991).

What does all of this tell us? There is a relationship between motivation and L2 achievement. The relationship, however, may depend upon the context of the particular learner's situation. In Canada, a bilingual country with two languages and cultures, integrative motivation has been found to correlate positively with L2 achievement. In some foreign countries, such as Hungary, where the learner does not have any association with or influence by the target culture and language (English), instrumental motivation seems to correlate more strongly than integrative motivation with L2 achievement (Dornyei, 1990).

There has been a movement over the past seven years to redefine L2 motivation, to include ideas from mainstream psychology. When teachers and parents think of motivation, terms like inner drive, effort and ambition come to mind. Recent research in L2 motivation moves to incorporate additional mainstream
psychological variables, such as those mentioned above, into already devised L2 motivation constructs.

The focus of the present study is to investigate the relationships between motivation, motivational antecedents and achievement in the L2 acquisition of French Immersion students. In order to understand these relationships, a few key questions need to be addressed. What is motivation, and how does motivation affect achievement in L2 learning? What variables influence motivation in L2 learning?
Chapter II

Review of Literature

Defining Motivation In Psychology

Part of the difficulty of defining "motivation" is the lack of consensus on any given definition. Over the past two decades Pintrich and Schunk (1996) observed a fundamental shift in motivational psychology to incorporate cognitive concepts and variables into theories. There has been a move away from the stimulus-response view of behaviourists with a new emphasis on the learner's constructive interpretation of events and the impact of beliefs, emotions and values on the learner's achievement. Motivation is seen as a process rather than a static state of being (that involves mental processes that lead to the initiation and maintenance of an action.) Thus, Heckhausen (1991) defines motivation using action control theory. This theory states that motivation is a process whereby an instigating force arises and initiates action and persists as long as no other force interferes to weaken it or until the outcome is achieved.

The work of Skehan in defining motivation is well recognized in the field of psychology. Skehan (1989) developed four hypotheses: (1) the Intrinsic Hypothesis, which states that motivation is the result of the learner's inherent interest to learn the task requested to learn; (2) the Resultative Hypothesis, which states that learners who persevere will be successful and those who do not will be discouraged and thus will put forth less effort; (3) the Internal Cause Hypothesis which states that the learner brings automatically to any learning situation a certain degree of motivation, and (4) the Carrot and Stick Hypothesis which states that external rewards and influences are
the driving force of motivation. Of these hypotheses, two have proved particularly relevant to language development in L2 motivation research, the Intrinsic Hypothesis and the Internal Cause Hypothesis.

The Intrinsic Hypothesis is supported in the self-determination theory developed by Deci and Ryan (1985), where motivation is viewed in terms of intrinsic and extrinsic motivation. Vallerand (1997) explained that intrinsic motivation is multidimensional and identified three areas in which individuals may demonstrate intrinsic motivation: to learn, to move towards achievement and to experience stimulation. Simplified, a learner may be intrinsically motivated to participate in an activity for the pleasure experienced while learning, exploring, or trying something new. Extrinsic motivation is also multidimensional, with four subtypes, which are external regulation, introjection, regulation and integrated regulation. The first subtype, external regulation, is behaviour that is regulated by rewards and constraints. The second subtype, introjection, involves the individual having internalized reasons, such as completing an activity in order not to feel the guilt of disappointing another. The third subtype, regulation, describes when a person identifies a certain behaviour as important and performs the behaviour freely because of the value the individual has placed upon it. Integrated regulation also involves voluntarily participating in a certain behaviour. However, the decision to engage in the activity occurs as the individual sees the value of the activity as important in relation to other areas of his/her life. For example, a student may decide not to go out late one evening in order to be well rested for an exam the next day. Intrinsic motivation has correlated positively with achievement in L2 learning. In a study by Noels, Clément and
Pelletier (1999) found stronger feelings of intrinsic motivation were found to relate positively to language-learning outcomes among French Immersion university students. Similar findings are detailed in a study by Wen (1997), involving university students learning Chinese. Wen (1997) concluded from the study’s results that intrinsic interest in Chinese culture and the desire to learn one’s own cultural heritage were the initial motivation for students to learn the L2, and that motivational factors correlated significantly with the desired learning outcomes.

The Internal Cause Hypothesis has been strongly supported by the work of social psychologists, who have dominated the field of defining L2 motivation and its role in L2 achievement. Dornyei (1994 a, b) defines two distinct traditions that explain human behaviour: motivational psychology and social psychology. Motivational psychologists look at the motors of human behaviour in the individual, focusing on internal factors such as drive, arousal, and self-appraisal. Social psychologists see the action as a function of the overall social context, with interpersonal and inter-group relationships measured by the individual’s social attitudes.

The theory of reasoned action and its extension, the theory of planned behaviour, have been developed from the social psychological perspective. The theory of reasoned action (Ajzen & Fishbein, 1977) stipulates that attitude has a direct influence on behaviour as an individual’s attitudes towards a target influence the individual’s response to the target. The chief determinant of action is the intention to perform the behaviour, which is a function of the attitude towards the behaviour and the subjective norm (social pressure to do so). If these two factors are in conflict, the
attitude is the dominant determinant of the action.

The theory of planned behaviour (Ajzen, 1988) extends the previous model by adding a modifying component, perceived behavioural control, which is the perceived ease or difficulty of completing the task. The individual’s behaviour performance can then be predicted by the intention to perform the behaviour and perception of control over the behaviour. A good critique of this theory can be found in Eagly and Chaiken (1993), and a review of research testing these models can be found in Ajzen (1996).

To review, both the Intrinsic Hypothesis and Internal Cause Hypothesis have been found relevant in understanding motivation in second language learning. Intrinsic motivation has been found to correlate positively with L2 achievement. The Internal Cause Hypothesis has been supported by L2 social psychologists, such as Gardner, who have completed a respectable amount of research regarding L2 acquisition. They have developed L2 motivation acquisition theories from a socio-psychological perspective, supporting the Internal Cause Hypothesis. An excellent summary of the research and development of L2 motivation theory and its constructs, including the work of Gardner and his associates, can be found in the work of Dornyei (1998).
Motivation in Second Language Acquisition Theory

Gardner and his associates, who view L2 acquisition from a socio-psychological perspective, are credited with being the pioneers in the field of L2 motivation. Gardner's L2 motivation model (1985) stipulates that a truly motivated L2 learner will display the following three components: motivational intensity, desire to learn the L2, and a positive attitude towards the act of learning the L2.

The Socio-Educational Model has been developing since its introduction to the field of L2 motivation (Gardner, 1960) and has evolved in conjunction with research to test various aspects of the model. As a result, the major variables of the model have been the subject of many studies. In the 1985 version (Gardner, 1985), the model stresses how language learning is unlike any other subject learning, as it involves the acquisition of behaviour patterns that are characteristic of another community. Thus, the degree of success in L2 learning will be influenced to some extent by the individual attitudes towards the other community, as well as by the beliefs in the learner's community relevant to the language learning process.

The Socio-Educational Model is supported by research demonstrating that affective variables play a significant role in L2 learning and also that these variables relate to each other. Such research hypothesizes that motivation in L2 learning is distinct from motivation in learning other subjects, as L2 learning involves the learner's feelings towards another cultural group.

The 1985 model (Figure 1) demonstrates relationships between the learner's attitudes, motivation and achievement in L2 learning. The learner's attitudes and integrativeness towards the L2 culture ("cultural beliefs") influence the learner's
motivation. This level of motivation, in either the context of a "formal" or "informal" language experience, then affects the level of achievement ("outcomes", both linguistic and non-linguistic) that the learner attains.

Integrativeness is the combination of the learner's attitudes and integrative orientation. Attitudes include the student's attitudes towards the L2 community, attitudes towards the learning situation (French class and French teacher) as well as the attitudes the community holds towards L2 learning and the L2 culture. The learner's socio-cultural beliefs are integral to the Socio-Educational Model. The learners' social and cultural environment determines to what extent the learner identifies with the target culture. Positive socio-cultural beliefs lead to successful L2 learning, according to the model. Learner attitudes are influenced by these beliefs. Attitudes in Gardner's model refer to attitudes toward the learning situation. This would include attitudes toward the second language teacher, the classroom environment and the importance of attending class.

As earlier defined, integrative motivation is the type of motivation learners exhibit when they want to become part of the L2 community. As explained by Gardner (1985, p.54), the concept of the integrative motive "includes not only the learner's orientation, but also the motivation, along with a number of other attitudinal variables." A student can demonstrate an integrative orientation, but not be motivated to learn the L2. A learner will reflect integrative orientation to learn the L2 because of a favourable interest in the L2 community. An integrative motive (motivation) expands this orientation to include effort, desire to learn the L2 and positive attitudes towards the L2 community.
Figure 1- Gardner's Socio-Educational Model, 1985
Integrative motivation may operate in the development of L2 proficiency through the development of another identity as part of the L2 cultural group. Cenoz and Valencia (1993) described a model whereby ethnolinguistic vitality, motivation and social networks all affected second language achievement in either a direct or indirect way. Negatively, Dodick (1996) found the motivation of American born L2 students to be lower than that of non-native students. The research by Dodick (1996) was qualitative, recording observations made during a nine week period of practice teaching, involving grade nine French-as-a-second-language students. As well as these classroom observations, data were collected from interviews with six subjects, which included four students and two teachers. From the observations made, Dodick concluded that L2 learning was not of great importance to the American born students as they did not wish to integrate into the L2 culture. This reduced their motivation to learn the L2.

Conversely, integrative motivation has been found useful in the field of ancestral language maintenance. A study by Wharry (1993) involved 21 Hispanic, 22 Native American and ten Vietnamese American college students. The researchers concluded that integrative motivation, along with parental attitudes and valuing the learning of the ancestral language, were significant in the adoption and maintenance of ancestral languages.

However, among the Fisher Cree in Manitoba, Sachdev (1998) reported low ethnolinguistic vitality. The Cree had greater contact with speakers of English and perceived the vitality of English to be greater than the vitality of Cree. The results reported overall low Aboriginal language proficiency and high English proficiency.
and use. These results demonstrate the Cree assimilation into English Canadian society, albeit at the expense of their heritage language and culture.

In earlier work by Gardner (1985), integrative motivation was considered an important construct of L2 learning, and instrumental motivation was not seen as important. Immigrants to a new country often desire to become part of the new society and learn the new L2 for integrative purposes. However in foreign language situations, such as Hungarian students in Hungary learning English (Dornyei, 1990), the purpose of foreign language learning is instrumental, to travel or to get a better job, not to better relate to the foreign language culture. Ely (1986) attempted to find if there were other types of motivation outside the instrumental/integrative dichotomy. Ely (1986) identified two clusters, similar to the integrative and instrumental subtypes of motivation. These results disconfirm claims that there are motivation subtypes outside of the instrumental/integrative dichotomy. Yager (1998) found that among advanced students of Spanish, greater integrative motivation and less instrumental motivation correlated positively with greater gains in the L2.

Following research showing how instrumental motivation can be more influential than integrative for foreign language students (Dornyei 1990), Gardner and MacIntyre (1991) demonstrated that both types of motivating conditions influenced the learning of vocabulary. Belmechri and Hummel (1998) discussed how both types of motivation were present among francophone students learning English as a L2.

As mentioned earlier, in foreign language situations, or even L2 situations where the learner does not care to integrate into the L2 culture, learners tend to demonstrate greater instrumental motivation. In studies of Arabic students learning
Hebrew in Israel and English in Canada (Abu-Rabia, 1996, 1998; Abu-Rabia & Feuerverger, 1996), motivation was primarily instrumental, with one exception. Female Arabic students in Canada demonstrated integrative motivation in learning English. It can be interpreted that overall, motivation was instrumental as the Arabic students strongly associated with their own culture and did not wish to integrate into the L2 culture. The exception with the female population is understandable as the female students favoured the way they were perceived and treated in Canadian society, in contrast with their heritage culture. Their desire to integrate into Canadian culture may have influenced their integrative motivation.

It is suggested that in foreign language learning situations, where the students demonstrate instrumental motivation, benefits to L2 acquisition can be attributed to integrative motives. Ho (1998) stipulated that although the Taiwanese subjects in his study learned English for instrumental purposes, they also demonstrated interest in learning about English-speaking countries. The use of Culture Studies in English is hypothesized to spark inherent student integrative motivation in the ESL learning.

Overall, various studies conducted by researchers have demonstrated support for the Socio-Educational Model (Abu-Rabia & Feuerverger, 1996; Cloutier, 1995; Gardner, Masgoret & Tremblay, 1999; Gardner, Tremblay, & Masgoret, 1997; Kraemer, 1993; Tremblay & Gardner, 1995). However, a number of researchers have come to question whether this model is sufficiently comprehensive. Notably, Crookes and Schmidt (1991) revisited the Gardner definition of L2 motivation and argued for an education-based definition of motivation that goes beyond factors such as learner attitudes. When teachers look to define motivation in their learners, they
tend to use such terms as the learner’s focus and drive in learning. The efforts of the learner in the learning situation are at least as important as the learner’s prior attitudes ("orientation") towards the target culture.

In 1994 the Modern Language Journal published debates among Dornyei (1994a, 1994b), Oxford (1994), Oxford and Shearin (1994) and Gardner and Tremblay (1994a, 1994b) marking a renewed interest in the field of L2 motivation. There was a call by the researchers to move beyond Gardner’s Socio-Educational Model of L2 acquisition to include constructs from general psychology, such as persistence and self-efficacy. Gardner (1994b) acknowledged the ideas proposed by the fellow researchers, but pointed out the lack of empirical evidence.

Tremblay and Gardner’s 1995 Study

In response to the call of fellow researchers, Tremblay and Gardner (1995) expanded the Socio-Educational Model to include other measures from general learning theory. The newly expanded model (see figure 2) added the variables of goal salience, valence, adaptive attributions, self-efficacy and French language dominance, to be described in further detail below.

The model was applied to a study involving 75 high school students in a francophone high school. The students completed various tests to measure the variables in the expanded model (figure 2.) These same tests are used in the current study, and will later be described in greater detail. Final grades in French along with the evaluation of a written essay were the measures of French achievement.
The newly derived model was quite complex in comparison to its predecessor. Rather than describe each relationship of the model, here is a synopsis of the general findings. Specific goals and frequent references to these goals by the students led to increased levels of motivational behaviour. These findings are consistent with previous research that found that goals influence performance by increasing intensity, persistence and attention. Goal salience was influenced by language attitudes. This is understandable since students who have negative attitudes are not likely to care about what they would like to achieve in a course.

Valence was influenced by language attitudes and there was a causal path from motivation to attitudes. This indicates that when an activity (such as learning a L2) is valued, motivation increases.

Self-efficacy was found to be influenced by language attitudes, which then influenced motivation. These results support previous research by Clément (1980), where self-confidence was found to be an important determinant of motivation in L2 learning. It is important to note that although the construct is more detailed, the basic elements and causation in the original Socio-Educational Model remain in the revised model. In brief, the original model and new model both share the same foundation that learner attitudes influence motivation which in turn influences achievement.

The new Socio-Educational Model has been well received by second language researchers. There is a need to replicate the model in studies to confirm its validity. The original sample was considered quite small for the statistical procedure chosen (LISREL) by the researchers, which reiterates the need for replication of the study.
Figure 2- Tremblay and Gardner's Proposed Model, 1995

Shaded boxes indicate the new variables that Tremblay and Gardner (1995) added to the 1985 Socio-Educational Model.
The following subheadings describe the variables tested in the 1995 model developed by Tremblay and Gardner, which include the variables from the original 1985 model as well as new motivational variables added to the 1995 model. 

Research supporting their role in L2 acquisition is added.

**Attitudes Towards Target Language and Culture**

In the Socio-Educational Model (1995), as in the previous versions, attitudes towards the L2 culture influence student motivation, which then influences achievement. Gardner and MacIntyre (1993b) described research that related attitudes to achievement in L2 learning. In various contexts, there was a correlation linking attitudes, motivation and achievement.

Numerous studies support this relationship. Lang, Faske, Gustina, Mowl and Liu (1996) reported higher achievement in American Sign Language among learners with positive cultural attitudes towards deaf people. Banya and Cheng (1997) found that students' beliefs affected their motivation, attitudes, motivational intensity, strategy use, anxiety and English (L2) achievement.

Abu-Rabia (1996, 1997, 1998) reported how cultural attitudes affected achievement in L2 reading comprehension in Israel. When students were given material they could relate to (stories from their own culture), their achievement in reading comprehension increased. Lower success in reading comprehension was reported when students were expected to learn the L2 using stories from the L2 culture rather than stories from their own culture. In a different context (Canada), the language of the story, rather than the cultural background of the story, correlated positively with achievement. These results demonstrated how sensitive language
learning can be to cultural attitudes and biases. In Israel, where tension between the
two language groups was higher, the attitudes towards the L2 culture affected L2
achievement. In Canada, this same level of tension was not present, and thus
attitudes did not affect the level of achievement in the students.

Attitudes and motivation distinguished secondary school students who were
continuing L2 studies and those not continuing L2 studies in a study by Ramage
(1990). Continuing students demonstrated higher motivation, more positive attitudes
and interest in the L2.

Motivational Behaviour

The expanded Socio-Educational Model (Tremblay & Gardner, 1995)
included the variables attention, effort and persistence. Kanfer and Ackerman (1989)
suggested that motivation is comprised of: (1) the direction of attentional effort: (2)
the proportion of total attentional effort directed to the task (intensity); and (3) the
extent to which attentional effort toward the task is maintained over time
(persistence).

To understand the component of persistence in motivation, Maehr and
Braskamp (1986) explained that when an individual attends to a task for an extended
period of time, observers are likely to infer that the individual is motivated. Effort is
distinct from persistence as it is merely the amount of energy expended, as an
individual can spend much time on a task (persistence) but work at a low rate of
effort. Crookes and Schmidt (1991) found an extremely close tie between motivation
and attention.

Factors that are not observable to an external observer, yet are influential for
motivational behaviour, were defined as motivational antecedents. Although previous research had discussed theories and concepts such as intrinsic and extrinsic motivation, need for achievement and learned helplessness. Tremblay and Gardner (1995) decided to focus on a number of other related antecedents. These included goal salience, self-efficacy/expectancy (which includes anxiety), valence, and adaptive attributions.

**Goal Salience**

Locke (1996) and Locke and Latham (1994) described goal setting (salience) theory. This theory states that individuals who have accepted specific and difficult goals will outperform students with non-specific and easy goals. Studies have also shown that students with specific and challenging goals persist longer at a task than students with easy and vague goals. These results were found by Locke and Kristof (1996) in a meta-analysis of over 400 studies. The authors of the study developed scales that measured goal frequency and goal specificity. Goal specificity refers to the extent to which students have goals, whereas goal frequency refers to the extent to which learners set goals for themselves.

**Expectancy, Self-Efficacy and Anxiety**

Expectancy value theories have been very influential in motivation theory. Atkinson’s classic achievement motivation theory (Atkinson & Raynor, 1974) has been further developed by other researchers, as reviewed by Pintrich and Schunk (1996) and Wigfield (1994). One of the main principles of this theory, as described by Dornyei (1998) is that motivation to perform various tasks is the product of the individual’s expectancy of success in the task and the value the individual attributes...
to the task. The underlying premise of the theory is that humans are by nature active
learners with inborn curiosity. The question is not what motivates learners but rather
what directs and shapes inherent motivation.

Heckhausen (1991) explained that expectancy theory holds that organisms
anticipate events and that their behaviour is guided in anticipation of these events.
Bandura (1991) stated that the higher the expectancy of an outcome being achieved,
the greater the motivation to perform the activity. In terms of language learning.
Tremblay and Gardner (1995) hypothesized that a language student may devote
considerably more time and effort if she believes the goal is achievable.

Self-efficacy is the most important expectancy we learn, according to Bandura
(1989). Self-efficacy can be defined as the individual’s belief in his/her capability to
reach a certain level of performance or achievement. The amount of effort exerted to
reach a certain goal is thus affected by the individual’s perceived capability of doing
so. Self-beliefs of efficacy can enhance or impair performance through their effects
on cognitive, affective or motivational intervening processes. As Dornyei (1998)
explained, an individual’s sense of efficacy will determine the choice of activities
attempted, the level of aspirations, the amount of effort expended and persistence at
the task.

Bandura (1993) expresses how self-efficacy contributes to cognitive
development and functioning. Self-efficacy is explained to work at three levels: the
the students’ beliefs, the teachers’ beliefs and the faculties’ beliefs. The students’
beliefs in efficacy to regulate their own learning and master academic tasks
determines their aspirations, level of motivation and academic achievement. The
teachers' beliefs in their own personal efficacy to motivate their students and promote learning affect the types of learning environments they create and the level of academic progress achieved by their students. The faculties' beliefs in their collective instructional efficacy contribute to the school's level of academic achievement.

Tuckman and Abry (1998) devised a model of self-efficacy that attributes self-efficacy to achievement. The student's self-efficacy for course achievement is comprised of student's self-regulatory behaviour, intrinsic value for learning and lack of test anxiety. This self-efficacy, combined with the student's GPA and parents' grade goals, determines the student's grade goals. The student grade goals, along with GPA and lack of test anxiety determine achievement in the course.

Shen and Peterson (1999) determined that self-efficacy has a positive influence on school motivation. They found self-efficacy to have a strong and direct influence on GPA. More support for self-efficacy is given by Bandura (1996), who found that children's beliefs in their ability to regulate their own learning and academic attainments contributed to achievement in various ways. Brookhart and DeVoge (1999) support an indirect relationship between self-efficacy and achievement in their model, where perceived self-efficacy correlates with effort, which then correlates with achievement. At times research in the field demonstrates inconsistent results. Bandura (1991) explained that although effort may appear to be related to self-efficacy, perceived high levels of effort may at times reflect low ability.

Self-confidence, in this model, is comprised of the learner having a lack of anxiety when speaking the L2, along with high self-ratings of proficiency, as described by Clément, Gardner and Smythe (1980). In their research they describe how self-confidence in English (among L2 learners) develops with contact with members of the L2 community. Clément and his associates (Noels, Pon, & Clément, 1996) discussed linguistic self-confidence and how it may affect learners in the acculturation process. They described linguistic self-confidence as the learner's self-perceptions of communicative competence, accompanied by low levels of anxiety while speaking the L2.

In language learning, self-confidence usually is assessed with measures of perceived proficiency at the time of testing. Self-efficacy, however, is the individual perception of future achievement. Where high levels of performance expectancy are correlated with low levels of anxiety, anxiety can be seen as a debilitating component of self-efficacy, as explained by Tremblay and Gardner (1995). As Ellis (1995) expressed, there is sufficient evidence to demonstrate that anxiety is an important factor in L2 learning. In its presence or absence, anxiety affects learners individually and to varying degrees.

Two types of anxiety have been identified in the field of L2 motivation research: facilitating anxiety and debilitating anxiety. As explained by Ellis (1995), facilitating anxiety motivates learners to put forth a greater effort to overcome anxiety and learn the new learning task. Debilitating anxiety causes the learner to avoid the source of anxiety. Williams (1991) reported low states of anxiety as being facilitating and high states of anxiety as being debilitating.
Matthews (1996) made an interesting point regarding the usefulness of anxiety for achievement. In this study, the experimental group was given a more important looking test (longer, immaculately typed and photocopied), and was told that the test counted towards their final grade. These anxiety-producing manipulations resulted in the experimental group performing better on the test than the control group. It is suggested that in situations where students have little incentive to achieve, increased negative affect (anxiety) may be a useful tool to boost student achievement. Inducing low state anxiety in the classroom environment could have a facilitating effect on the learner's achievement in L2 acquisition.

In the L2 learning field, Horwitz (1986) reported significant, negative correlations between foreign language classroom anxiety and achievement in university students. MacIntyre, Noels and Clément (1997) found that anxious students underestimated their competence and less anxious students overestimated their competence. Language anxiety correlated negatively with actual and perceived proficiency in the L2.

Skehan (1989) reported that poor performance can be a source of anxiety. Banya and Cheng (1997) concluded that good language learners are less anxious, spend more effort, use more strategies and perceive the L2 as less difficult. It is proposed by MacIntyre and Gardner (1991) that the relationship between anxiety and learning is moderated by the learner's stage of development and by situation specific learning experiences.

Gardner, Day and MacIntyre (1992) demonstrated that anxiety manipulation (creating a stressful, anxious environment) had no effect on vocabulary acquisition.
The control group completed a vocabulary acquisition activity on a computer while 
the experimental group completed the same activity under the scrutiny of a video 
camera. This anxiety inducing tactic had no effect on the experimental group's 
ability to acquire L2 vocabulary. It is questionable, however, whether the 
videotaping of the students was effective in inducing anxiety in the students. The 
results of this study could also be interpreted as the anxiety attempt being ineffective, 
or effective in producing facilitating rather than debilitating anxiety in the students. 

**Valence**

In motivation literature, Lee, Locke and Latham (1989) defined valence as the 
subjective value an individual gives a particular outcome. Heckhausen (1977) stated 
that it is the perceived consequence of the outcome that determines the level of 
incentive. In language learning, if language students do not perceive value in their 
performance, motivation will be lowered, according to Oxford and Shearin (1994). In 
order to perceive value in studying a language, an awareness of the benefits that 
would come from mastery is necessary. Barlia and Beeth (1999) found that among 
motivational factors, task value and control beliefs were most important for students. 

A model of task values is explained by Eccles and Wigfield (1995). The 
positive value of a task is comprised of its attainment value (subjective importance 
based on personal needs), intrinsic value (the enjoyment the task brings) and extrinsic 
utility value (usefulness of task in meeting future goals). A negative component is 
cost, which is the expended time, effort and emotion involved. The interplay of these 
four variables determines the overall achievement value of the task. This overall 
value determines the strength and intensity of the behaviour.
Adaptive Attributions

Attribution theory is based on the belief that individuals seek to understand why events have occurred (Schuster, Forsterling, & Weiner, 1989). Weiner (1986) theorized that behavior is in part determined by the perceived causes of past events. According to this "locus of control" theory, internal attributes are those considered to be within the individual, such as ability and effort. External attributes, such as luck and task difficulty, are believed to be outside the individual.

Bandura (1991) found that ability attributions were associated with increased self-efficacy. Attribution of success to ability was correlated with increased self-efficacy whereas an attribution of failure to lack of ability was correlated with decreased self-efficacy. Support for this theory is also found with Weiner (1979) who concludes that failure that is attributed to stable and uncontrollable factors (low ability) decreases the expectation of success to a greater extent than failure attributed to controllable factors (e.g., effort). In an achievement related context, literature on causal attributions suggests that attributions have motivational properties based on their influence on expectancy. Attributions associated with high self-efficacy are defined as adaptive attributions while attributions associated with low self-efficacy are defined as maladaptive attributions. As Perry (1999) explained, causal attributions directly affect motivation and can influence whether students become helpless or mastery-oriented.

For a deeper understanding of this theory, Dweck and Leggett (1988) discussed how the cognitive, affective and behavioural features of adaptive and maladaptive behavior follow directly from different goals. They proposed a model
that accounts for these behaviours. Their model explains how individuals' implicit theories orient them toward particular goals and how these goals set up the different patterns. They continue to demonstrate how each feature (cognitive, affective and behavioural) of the adaptive and maladaptive patterns can be seen to follow directly from different goals. Williams and Burden (1999) discussed how the manner in which teachers convey messages in different ways affects the learners' perceptions of success and failure.

**French Language Dominance**

The students investigated in the Tremblay and Gardner study (1995) were francophone. Tremblay and Gardner (1995) added a survey to their study which measured the students' French language dominance. This was determined by the students' answers to questions which asked how often they engaged in cognitive tasks in French, such as counting or reciting the months of the year. The researchers hypothesized that French language dominance would influence students' causal attributions in L2 learning. They found a direct positive correlation between French language dominance and achievement.

**Support for Tremblay and Gardner's Revised Socio-Educational Model**

Gardner, Tremblay, and Masgoret (1997) found additional support for Tremblay and Gardner's (1995) revised Socio-Educational Model. They investigated the relationships between the following variables: attitudes, motivation, achievement, self-ratings of French proficiency, anxiety, learning strategies, aptitudes, and field dependence and independence. Most of these variables have been previously...
described in this paper, with the exception of field dependence/independence and learning strategies.

Field dependent individuals are described as being sensitive and interested in others, whereas field independent individuals tend to be self-sufficient and analytical. Several studies suggest relationships between field independence and L2 achievement, whereby field independent individuals demonstrate greater competency in L2 acquisition (Genesee & Hamayan, 1980; Hansen & Stanfield, 1981; Naiman, Frohlich, Stern & Todesco, 1978).

Language learning strategies are techniques used by individuals to help learn L2 material and improve skills. Research demonstrates that there are positive correlations between the frequent use of language learning strategies and achievement in L2 acquisition (see Ellis, 1995).

The participants in Gardner, Tremblay and Masgoret (1997) consisted of 82 females and 20 males who were enrolled in an introductory university French course. The students had studied French for an average of 11.37 years: 86% of participants had studied French nine years or more, and 55% had spent at least one month in a French country or region. Also, 38% had some French Immersion experience (between 1 and 14 years.)

The variables were tested with the administration of two questionnaires over two 90 minute periods. The students agreed to have their final French grades released to the researchers. The questionnaires were developed from well-recognized scales, including the Attitudes/Motivation Test Battery (AMTB) (Gardner & Lambert, 1972); self-confidence scales (Clément & Kruidenier, 1985); French language classroom
anxiety scale (Horwitz, Horwitz & Cope, 1986); French achievement measures (Lalonde & Gardner, 1984); and self-perceptions of proficiency in the L2 scale (modified rendition of Can Do by Clark, 1984).

Exploratory factor analysis yielded five factors: self-confidence with French, language learning strategies, motivation to learn French, language aptitude and orientation to learn French. These factors then fit into a causal model that paralleled the Socio-Educational Model, with the new extensions added (see figure 3.) Language attitudes directly correlated with motivation, which positively correlated with achievement, as found in the Socio-Educational Model. Both motivation and achievement positively correlated with self-confidence. Motivation was also found to correlate positively with use of language strategies, which correlated positively with achievement.

Gardner, Tremblay and Masgoret's (1997) study provides strong support for the Socio-Educational Model. The fact that the instruments used in the study have been used in previous research increases the replicability of the study. The sample size was adequate; however additional studies would prove beneficial in supporting or refuting the model. The data fit the Socio-Educational Model, although it could also fit other L2 motivational models which were not tested. A difficulty with this study involved interpreting the results regarding field dominance from the reader's perspective. Better definition of the field dominance test would be helpful, as it is unclear to the reader if a high score on the test indicates field independence or field dependence in the individual.
Shaded boxes indicate the new variables that Gardner, Tremblay and Masgoret (1997) added to the 1985 Socio-Educational Model.
Gardner, Masgoret and Tremblay (1999) tested a causal model which shares many similarities with the Socio-Educational Model. This study demonstrated a relationship between early socio-cultural experiences (as remembered by the respondents) and current cultural attitudes, motivation to learn a L2, and self-perceptions of language ability.

A sample of 75 males and 34 females enrolled in an introductory psychology course at the University of Western Ontario participated in the study. The students had studied French for an average of 8.5 years, and 50% of the students had studied French for more than nine years. French Immersion participation (between 1 and 14 years) was indicated by 25.9% of the participants.

In addition to completing the various subtests of the AMTB, the students were asked to indicate their hometown so that information from the 1991 Canadian census could be used to determine the proportion of French speakers in their hometown environments. Three new measures were developed for this study, with eight questions (four positively worded, four negatively worded) for each measure, on a Likert-type scale, integrated into the survey with other questions. These new measures were: the importance of bilingualism, the consequences of bilingualism and attitudes toward separation. To assess the students’ self-perceptions of abilities in French, a modified rendition of the Can Do measure (Clark, 1984) was administered. The measure “attitudes towards French speakers” was adapted from Lambert, Hodgson, Gardner and Fillenbaum (1960), using the matched-guise technique (e.g., insincere/sincere, impolite/polite).
The results demonstrated support for the causal model proposed, which was a direct extension of the Socio-Educational Model with some small changes (see figure 4). The initial formulation proposed that early motivational intensity would be causally related to later motivational intensity. This path was eliminated in the final model as the relationship did not demonstrate statistical significance.

Early socio-cultural experiences, including attitudes toward the learning situation, motivational intensity, French class anxiety, parental encouragement and percentage of French population in the hometown tended to correlate positively with one another. These variables had a direct effect on subsequent attitudes and beliefs. The causal model proposed demonstrated the same path as the Socio-Educational Model, where attitudes influence motivation and motivation then influences achievement. In the Gardner, Masgoret and Tremblay (1999) study, the self-perceptions of French proficiency were the students' measures of achievement.

Gardner, Masgoret and Tremblay (1999) make a positive contribution to the field of second language learning. Their study is based upon the heavily researched Socio-Educational Model and uses batteries that have been tested and proven to measure the variables they are intended to measure. The sample size is sufficient. However, replication with a larger sample would help to validate the results. Statistical analysis was performed to test the goodness of fit of the model, and the indices were good. The present study validates the Socio-Educational Model while moving forward to expand and include new variables in the analysis of L2 motivation and achievement.
Shaded boxes indicate the new variables that Gardner, Masgoret and Tremblay (1999) added to the 1985 Socio-Educational Model.
French Immersion: Related Studies

An educational context in which the Socio-Educational Model of L2 motivation may be usefully applied is that of Canadian French Immersion. In Canada, bilingualism began and is sustained by the federal government in hopes of achieving positive cultural attitudes between the English and the French (e.g., Commissioner of Official Languages, 2001). French Immersion (FI) programs are funded with the goal of creating bilingual citizens in Canada.

Van der Keilen (1995) studied the degree to which French Immersion and regular English students use French and interact with the francophone community. The sample consisted of 300 students, 176 attending three different French Immersion schools and 124 attending regular English program schools in Sudbury. The students were in grades five to eight. The schools were chosen with regard to the general socioeconomic characteristics of the population. Despite this effort, French Immersion students represented a higher socioeconomic level within the region, a difference subsequently controlled statistically. Subjects from urban, rural and suburban schools were represented in the sample. The community offered cultural and recreational events that were French or bilingual and education was available at all levels in both languages. English was the main language of business and commerce. Close to a third of the population was francophone.

The instruments included a number of surveys. An attitude questionnaire was administered (adapted from Gardner, Smythe, Kirby & Bramwell, 1974) with some simplification. Only the scales relevant to the study were administered. Also adapted from Gardner, Smythe, Kirby & Bramwell (1974) were a desire to learn French scale.
and a self-rating form of French writing, reading, understanding and speaking. Developed by the author was a social distance scale, which measured how close a relationship participants would accept with members of various cultural groups. Also developed by the author was an interaction survey, which was devised to assess the extent to which participants interacted with the francophone population. A general information form collected information regarding parents' occupations and language use at home. The surveys were administered over two one hour sessions.

Results indicated that the French Immersion pupils demonstrated greater participation in activities and situations involving the use of the French language than English program students. The attitudes of the FI students towards French language, culture and people were much more positive than the English group. The FI students were also more accepting of French Canadians and other ethnic groups.

The use of French by the FI students tended to be restricted to family and playmates. French use was often found in passive-receptive situations such as watching television as no output of French was required by the student. Despite high integrative attitudes exhibited by the FI students, interaction with the francophone community did not result from these attitudes, disproving previous research anticipating such a relationship (Gardner, Smythe, Clement & Glicksman, 1976). It is suggested by the researcher that what is missing from FI programs is actual interaction of students with the francophone community.

Van der Keilen's (1995) study provided an adequate sample to generalize its results to the population. As previously discussed, a shortcoming can be found in the fact that the FI students represented a higher socio-economic group compared to the
non-Immersion Anglophone students. The author addressed this issue by attempting to control this variable statistically. In future studies, this problem is likely to occur as parents who choose FI program for their children demonstrate similar characteristics and desires for their children, which come as a result of their education, careers and socio-economic status. Replication of this study in other regions with different levels of exposure to French culture (e.g., Ottawa, with a high level of bilingualism and availability of French, to Essex County, with a much more limited degree of francophone contact) would prove beneficial to the generalization of the results.

MacFarlane and Wesche (1995) studied the self-assessed proficiency, language-related attitudes and French use patterns of former French Immersion students in pursuit of graduate studies. The study was part of a longitudinal study of outcomes of some of the first French Immersion (FI) graduates in the Ottawa area. Earlier stages of the study explored linguistic and socio-cultural outcomes during the university years while the 1995 study examined language-related attitudes, language use patterns and attitudes towards French Immersion as these graduates embarked upon their careers. The sample consisted of 21 participants, who were members of the 1971 kindergarten cohort and had participated in both follow up studies of immersion students at high school graduation (1985, N=81) and during their third year of university (1988, N=48). The current sample of 21 was not significantly different from the 1985 group (N=81) from which they were drawn in the areas of proficiency, attitudes and language use. Almost all were working or pursuing graduate studies. Questionnaires were mailed to the 27 subjects traced by the
researchers, resulting in 21 respondents. It was possible to interview 13 by telephone, with one refusal. The questionnaire, developed by the authors since suitable instruments were not readily available, combined open-ended with alternate-choice questions. Follow-up interview questions were also developed by the authors. The results indicated that half of the respondents felt their ability in French was worse than the year that they graduated from FI. Most subjects considered their attitudes to be more positive or much more positive than those of students who had not completed FI programs. Many attributed their positive attitudes moderately to the FI experience.

French was reported to be seldom used by most (86%) of respondents. Work was the most common place French was used, with co-workers and clients being the most frequent conversation partners. The greatest number of subjects reported "sometimes" reading in French, followed by watching television as the second most popular activity. For some respondents, watching television occurred when sports events were not televised on English stations. The participants reported being "very" or "completely" satisfied with their French Immersion experience. Suggestions to improve the FI program, as discussed during the telephone interviews, included placing a greater emphasis on French oral communication, to better prepare students to function outside the classroom. Use of French outside the classroom and contact with francophones were considered components that should be integral to the FI program, although many had not had these opportunities in their FI experiences. The MacFarlane and Wesche (1995) study is useful in providing some insight regarding the effectiveness of the FI program. While students demonstrated more positive
attitudes towards francophones, interaction with the francophone culture did not result from the program, disproving the hypothesis by Bibeau (1984).

These results have many shortcomings. The very small sample size (N=21) does not reflect the results being applicable to the general FI population. Results of the telephone interviews come from an even smaller sample (N=13), with the same shortcomings arising. The results obtained would have greater significance if more reliable instruments were used, such as the AMTB, rather than the survey developed by the authors. The replicability of the study is difficult as the availability of the instruments used is low. The students in the MacFarlane and Wesche (1995) study were all university graduates pursuing graduate work. This indicates a very homogeneous sample and does not address the results of students who had different academic goals (who perhaps joined the work force after high school, or attended community college, or finished their undergraduate study and stopped their educational pursuits at this level). Lastly, motivation was not addressed in this study at all. With motivation being the focus of L2 achievement over the past two decades, its omission from the current study is debilitating to its results.

In both the Van der Keilen (1995) and MacFarlane and Wesche (1995) studies, FI students demonstrated positive attitudes towards L2 learning. As previously discussed in this paper, attitudes influence motivation, which influences achievement in L2 acquisition. The more positive attitudes of the FI students would likely result in these students achieving higher competency in L2 learning, compared to English students. These are only assumptions, however, for empirical data and testing did not occur in these studies to test this hypothesis.
Summary

As reviewed in this paper, research and theory regarding motivation and second language acquisition have been developing and evolving over the past three decades. Early research demonstrated that motivation and achievement in L2 learning are distinct from learning other subjects, since in L2 learning the learner's attitudes towards the target language and culture, the attitudes the society has towards L2 learning and societal attitudes towards the L2 language and culture all influence the level of motivation and achievement attainable. The L2 learner also adopts a second identity, which is distinctly a participant in the target L2 culture, when acquiring a L2. The dominant model in the field of L2 motivation, the Socio-Educational Model (Gardner, 1985), is based upon the theory that learner attitudes (as described above), influence learner motivation, and subsequently learner achievement in L2 learning. In the early 1990's, there was a call from various L2 motivational researchers to expand the ideas of the socio-educational model of motivation in L2 acquisition to include other variables from mainstream psychology, such as effort, goal setting and anxiety. This call was addressed by Tremblay and Gardner (1995), who expanded the Socio-Educational Model to include anxiety, self-efficacy, expectancy, effort, goal setting, and language dominance. While there has been some research to support this expanded model and include other motivational variables (Gardner, Masgoret & Tremblay, 1999; Gardner, Tremblay, & Masgoret, 1997), further empirical research of the expanded Socio-Educational Model is needed. Research in this field has also focused upon students in high school and post-secondary institutions, posing a need for studies to be conducted with early or
intermediate L2 learners in elementary schools.

The purpose of the current study is to determine if the relationships of the revised Socio-Educational Model (1995) are similar with elementary French Immersion school students. While French Immersion continues to be a popular learning program for second language acquisition, more research in this field would prove beneficial regarding motivation and L2 learning. This study aspires to address the following research question: Do the relationships of the expanded Socio-Educational Model apply to elementary school-aged. French Immersion learners?

Hypotheses

It is hypothesized that the research will support the relationships of the revised Socio-Educational Model applied by Tremblay and Gardner (1995). Some variation in the results is expected as the sample is different from the earlier study in both age (elementary school students instead of high school students) and in language dominance (French Immersion instead of French first language students.)

Hypothesis 1 - Correlational Analysis

A:

The following variables are hypothesized to correlate positively with the four measures of achievement:

1. integrative motivation
2. instrumental motivation
3. attitudes towards learning French
4. desire to learn French
5. interest in foreign languages
6. motivational intensity
7. persistence
8. attention
9. French course evaluation
10. performance expectancy
11. French language dominance

B:

The following variables are hypothesized to correlate negatively with the achievement variables: French class anxiety and French use anxiety.

C:

The adaptive attribution of success/effort is hypothesized to correlate positively with achievement.

D:

The following variables are hypothesized to correlate positively with integrative motivation:

1. attitudes towards learning French
2. desire to learn French
3. interest in foreign languages
4. motivational intensity
5. persistence

E:

The variables valence and self-efficacy are hypothesized to correlate
positively with:

1. all four achievement variables
2. motivational intensity
3. persistence
4. attention

Hypothesis 2 - Discriminant Function Analysis

In the discriminant function analysis, it is hypothesized that it will be possible to classify good and poor students using the Socio-Educational Model.

Hypothesis 3 - Regression Analysis

In the regression analysis, a motivation construct is hypothesized to be the strongest predictor of the achievement variables, in comparison to anxiety, persistence and locus of control constructs.
Chapter III
Methodology

Participants

The sample consisted of grade six French Immersion students from four area schools, including 2 rural schools and 2 city schools. The sample size was 53 students, of whom 25 were identified as female, 20 were identified as male, and eight were not identified by gender. Data were not collected regarding the ages of the participants. As the students were all in grade six, it is assumed they were between the ages of eleven and twelve years old.

Instruments

The same instruments that were used in the creation of Tremblay and Gardner's 1995 model (with the exception of achievement) were used in the current study (Appendices F, G, H). Most questions appeared as they did in the Tremblay and Gardner (1995) study. However, as the sample was much younger in the current study, some slight modifications were made to some of the questions for comprehension and suitability purposes.

The Attitudes/Motivation Test Battery

The AMTB is an instrument originally developed by Gardner & Lambert (1972), to measure the variables and the relationships between the variables in the Socio-Educational Model. The AMTB consists of subtests that give scores on the following variables:

1) integrative motivation

2) instrumental motivation
3) attitudes towards learning French
4) desire to learn French
5) motivational intensity (effort)
6) attitudes towards the French course
7) French class anxiety
8) French use anxiety
9) attitudes towards French Canadians
10) attitudes towards the French teacher

For the current study, the above mentioned variables were tested using these AMTB subtests, with the exception of the italicized variables which were not tested (Appendix F.) Each subtest was comprised of eight questions, with four questions worded positively and four questions worded negatively. For each question, the student was asked to circle a number between one and seven (Likert-type scale), to indicate how much s/he agreed or disagreed with the statement. The questions of the subtests were mixed together and presented in a random order prior to the survey being administered.

The validity of the AMTB has been confirmed by Gardner and MacIntyre (1993a). Statistical analysis indicated that the subtests of the AMTB measure what they are intended to measure. This determination was made by developing different ways to measure the same construct, and investigating the multitrait/multimethod matrix of correlations. According to Campbell and Fiske (1959), four conditions should be met in assessments of validity using the multitrait/multimethod approach. The first condition is that the correlations of the same variables using the different
procedures should be significant and sufficiently large. The second condition is that the correlation of a variable should be higher with another measure of the same variable than with any other variable using its own measurement approach. The third condition states that the correlation of a variable should be higher with another measure of the same variable using the other measurement approach (the heteromethod matrix) than it is with the other measures of the variables. The fourth and final condition is that the same pattern of correlations should occur in the heterotrait triangles of both monomethod and heteromethod matrices. All four conditions were largely satisfied in the Gardner and MacIntyre (1993) study.

Additional Variables Tested

**Persistence**: The degree to which an individual perseveres at a task. Scale developed by Tremblay and Gardner (1995.)

**Attention**: The degree to which a learner concentrates on the task. Scale developed by Tremblay and Gardner (1995.)

**Performance expectancy**: Level of proficiency in French the students' anticipated achieving by the end of their FI elementary experience. Measured by a battery based on the Can Do Measure (Clark 1984), revised by Tremblay and Gardner (1995), modified by the author of the current study to suit the abilities of the participants. The results were reversed scored to correct the direction of the questions in the questionnaire.

**French language dominance**: The degree to which the student thinks in French (for counting, reciting months, etc.) Battery developed by Tremblay and Gardner (1995). The results were reversed scored to correct the direction of the questions in the
questionnaire.

**Causal attributions:** The learner's attribution to success in L2 learning (ability, effort, context or luck.) Using a battery developed by Tremblay and Gardner (1995.)

**Achievement:** The students' overall achievement in French second language learning. The students' report card grades in French Language Arts (reading, writing, oral communication), as well as test results from a cloze French L2 achievement test developed by the Ontario Institute for Studies in Education (O.I.S.E.), at the University of Toronto, specifically for French Immersion students.

**Self-Efficacy / Expectancy:** The student's perception of anticipated proficiency at the end of the course. Measured by the AMTB. French Use Anxiety and French Class Anxiety components (Gardner, Clement, Smythe & Smythe, 1979), and a modified rendition of Can Do Measurement (Clark, 1984).

**Valence:** The desire and attractiveness towards a task. Measured by the Desire to Learn French and Attitudes Towards Learning French components of the AMTB.

**Procedure**

While it would be of great interest and significance to replicate Tremblay and Gardner's (1995) whole model in the study, this is not feasible due to the extremely large sample size needed to conduct the research with proper statistical methodology. For the purpose of the present study, most of the variables from the revised Socio-Educational Model were examined. The variables measured in this study were learners' attitudes, motivation, motivational antecedents (self-efficacy and expectancy, causal attributions, valence), French language dominance and achievement. Goal frequency and goal salience were not tested as the author
concluded that at the young age of the participants, goal setting would not be of high importance to the students, which would lead to inconsistent results. The variable “attitudes towards French people” (from the AMTB) was also not measured due to the young age of the participants. In the author’s opinion, this subtest was inappropriate to the age level as the attitudes reported would likely be parental attitudes rather than personal attitudes. The variable “attitudes towards the French teacher” was not measured as permission to test this variable was denied by the school board. Upon receiving the instruments, the author reviewed the language to ensure the questions were age-appropriate for the sample. Some slight modifications were made for comprehension and suitability purposes due to the much younger age of the sample. The questionnaire was then administered to a pilot group of grade six students who were able to express to the teacher any difficulty with comprehension in the survey. This group of students was not part of the sample later tested. Some slight modifications were made following the trial run with this group of students. Following receipt of permission from the Ethics Committee, the board of education and the individual principals, co-operation was obtained from four grade six teachers at four schools. Permission forms were sent out and collected, and students with permission forms participated in the research. The surveys and proficiency test were administered over two class periods of 40 minutes, on separate days. Report card grades for French Language Arts were submitted by the homeroom teacher to the researcher. The proficiency tests were graded by the researcher, and all data from the surveys and report cards were organized on a spreadsheet to be used later in statistical analysis.
Chapter IV

Results

The statistical tests used were correlational analyses, discriminant function analysis and regression analysis. The results of each statistical test will be described in this order.

Correlational Analyses

Correlational analyses were used to examine the first hypothesis. Many of the motivational variables tested correlated positively with the measures of achievement. Diagrams have been constructed to demonstrate the significant relationships between the motivational variables and each measure of achievement. The four measures of achievement were Oral GPA, Reading GPA, Writing GPA and the French Proficiency Test Score.

Oral GPA

Figure 5 demonstrates positive correlations between the achievement variable Oral GPA and the motivational variables Attitudes Towards French, Interest in Foreign Languages, Motivational Intensity, Performance Expectancy and French Language Dominance. These correlations support the Gardner Socio-Educational Model. Also supporting his model, French Class Anxiety and French Use Anxiety correlate negatively with the achievement variable Oral GPA. See Table 1 for the correlations of all of the motivational variables with all of the achievement variables.

Reading GPA

Figure 6 focuses upon the variables correlating with the achievement variable "Reading GPA." As in Figure 5, the motivational variables Attitudes towards French,
Interest in Foreign Languages. Motivational Intensity and Performance Expectancy correlate positively with achievement. The variable French Use Anxiety correlates negatively with achievement (Reading GPA). These results are consistent with Tremblay and Gardner's (1995) findings.
Figure 5- Oral GPA, Correlational Analysis

[Diagram showing relationships between variables such as Attitudes Towards Learning French, Interest in Foreign Languages, Motivational Intensity, Performance Expectancy, French Lang. Dominance, French Class Anxiety, French Use Anxiety, and their correlations with Oral GPA.]
<table>
<thead>
<tr>
<th>Motivational variables</th>
<th>Test score</th>
<th>Oral GPA</th>
<th>Reading GPA</th>
<th>Writing GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative Motivation</td>
<td>.294</td>
<td>.253</td>
<td>.226</td>
<td>.108</td>
</tr>
<tr>
<td>Instrumental Motivation</td>
<td>.214</td>
<td>.149</td>
<td>.113</td>
<td>-.031</td>
</tr>
<tr>
<td>Attitudes Towards Learning French</td>
<td>.409**</td>
<td>.423**</td>
<td>.402**</td>
<td>.349</td>
</tr>
<tr>
<td>Desire to Learn French</td>
<td>.448**</td>
<td>.280</td>
<td>.297</td>
<td>.132</td>
</tr>
<tr>
<td>Interest in Foreign Languages</td>
<td>.440**</td>
<td>.456**</td>
<td>.409**</td>
<td>.349**</td>
</tr>
<tr>
<td>Motivational Intensity (Effort)</td>
<td>.457**</td>
<td>.421**</td>
<td>.465**</td>
<td>.349**</td>
</tr>
<tr>
<td>Persistence</td>
<td>.391**</td>
<td>.226</td>
<td>.238</td>
<td>.260</td>
</tr>
<tr>
<td>Attention</td>
<td>.244</td>
<td>.213</td>
<td>.183</td>
<td>.195</td>
</tr>
<tr>
<td>French Course Evaluation</td>
<td>.283</td>
<td>.267</td>
<td>.224</td>
<td>.204</td>
</tr>
<tr>
<td>Performance Expectancy</td>
<td>.618**</td>
<td>.588**</td>
<td>.596**</td>
<td>.635**</td>
</tr>
<tr>
<td>French Language Dominance</td>
<td>.266</td>
<td>.413**</td>
<td>.253</td>
<td>.231</td>
</tr>
<tr>
<td>French Class Anxiety</td>
<td>-.237</td>
<td>-.339**</td>
<td>-.246</td>
<td>-.143</td>
</tr>
<tr>
<td>French Use Anxiety</td>
<td>-.475**</td>
<td>-.482**</td>
<td>-.446**</td>
<td>-.447**</td>
</tr>
</tbody>
</table>

*p<0.01
**Writing GPA**

Some of the correlations found in both Figures 5 and 6 repeat again in Figure 7, where the achievement variable is Writing GPA. The variables Interest in Foreign Languages, Motivational Intensity and Performance Expectancy correlate positively with achievement (Writing GPA). Again, French Use Anxiety is found to correlate negatively with achievement. These results are consistent with Tremblay and Gardner's (1995) findings.

**Proficiency test**

The final achievement measure, the test score from the administered proficiency achievement test is the achievement variable in Figure 8. As seen in the previous figures, the motivational variables Attitudes Towards French, Interest in Foreign Languages, Motivational Intensity and Performance Expectancy correlate positively with the achievement variable test score. Also found to correlate positively with achievement are the variables Desire to Learn French and Persistence. French Use Anxiety correlates negatively with the test score achievement variable, as it did with the other achievement variables.
Figure 6- Reading GPA- Correlational Analysis

- Attitudes Towards Learning French
  - Interest In Foreign Languages
  - Motivational Intensity
  - Performance Expectancy
  - French Use Anxiety

Correlation coefficients:
- Attitudes Towards Learning French: 0.402
- Interest In Foreign Languages: 0.409
- Motivational Intensity: 0.465
- Performance Expectancy: 0.596
- French Use Anxiety: -0.446

Achievement Reading GPA
Figure 7- Writing GPA- Correlational Analysis

- Interest In Foreign Languages: 0.349
- Motivational Intensity: 0.349
- Performance Expectancy: 0.635
- French Use Anxiety: -0.447

Achievement Writing GPA
Figure 8- French Achievement Test Score- Correlational Analysis

- Motivational intensity: 0.457
- Persistence: 0.391
- Desire to Learn French: 0.448
- Attitudes Towards Learning French: 0.409
- Interest In Foreign Languages: 0.440
- Performance Expectancy: 0.618
- French Use Anxiety: -0.475

Achievement Test Score
Causal Attributions

Table 2 illustrates the correlational values between the causal attribution variables and the achievement variables. It can be observed that the only correlation significant at the probability level of less than 0.01 was the negative correlation between the achievement variable Oral GPA and the causal attribution attributing failure to luck. Lower oral achievement was related to attributing failure to luck.

Motivational Factors

The way the motivational variables correlate with each other was also examined. Figure 9 demonstrates that the variables Integrative Motivation, Attitudes Towards Learning French, Desire to Learn French, Interest in Foreign Languages and Persistence all correlate positively with Motivational Intensity. As previously discussed, Motivational Intensity correlates positively with all measures of achievement (Figures 1-4).

Much of Gardner's research has focused upon the relationship of integrative motivation to achievement. While in this study integrative motivation did not correlate significantly with achievement, many of the variables that correlated with the achievement variables also correlated with integrative motivation. These variables (see Figure 10) include Instrumental Motivation, Attitudes Towards Learning French, Desire to Learn French, Interest in Foreign Languages, Motivational Intensity and Persistence. The correlational values and levels of significance for the motivational variables can be found in Table 3.
Table 2- Causal attributions and achievement. Pearson Product correlations

<table>
<thead>
<tr>
<th>Locus of control variable</th>
<th>Achievement:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test score</td>
<td>GPA Oral</td>
<td>GPA Reading</td>
<td>GPA Writing</td>
</tr>
<tr>
<td>Ability - Success</td>
<td>.158</td>
<td>.083</td>
<td>.110</td>
<td>.031</td>
</tr>
<tr>
<td>Ability - Failure</td>
<td>-.141</td>
<td>-.328</td>
<td>-.237</td>
<td>-.203</td>
</tr>
<tr>
<td>Effort - Success</td>
<td>.197</td>
<td>.134</td>
<td>.245</td>
<td>.192</td>
</tr>
<tr>
<td>Effort - Failure</td>
<td>.178</td>
<td>-.088</td>
<td>.082</td>
<td>-.090</td>
</tr>
<tr>
<td>Context - Success</td>
<td>-.022</td>
<td>-.128</td>
<td>-.044</td>
<td>-.045</td>
</tr>
<tr>
<td>Context - Failure</td>
<td>-.173</td>
<td>-.267</td>
<td>-.164</td>
<td>-.307</td>
</tr>
<tr>
<td>Luck - Success</td>
<td>-.167</td>
<td>-.305</td>
<td>-.298</td>
<td>-.338</td>
</tr>
<tr>
<td>Luck - Failure</td>
<td>-.199</td>
<td>-.370**</td>
<td>-.219</td>
<td>-.342</td>
</tr>
</tbody>
</table>

** p< 0.01.
Table 3- Correlations of motivational variables. Pearson correlation

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Integrative Motivation</td>
<td>.471**</td>
<td>.660**</td>
<td>.513**</td>
<td>.454**</td>
<td>.549**</td>
<td>.428**</td>
<td></td>
</tr>
<tr>
<td>2. Instrumental Motivation</td>
<td></td>
<td>.290</td>
<td>.354**</td>
<td>.126</td>
<td>.471**</td>
<td>.272</td>
<td></td>
</tr>
<tr>
<td>3. Attitudes Towards Learning French</td>
<td></td>
<td></td>
<td>.749**</td>
<td>.562**</td>
<td>.660**</td>
<td>.678**</td>
<td></td>
</tr>
<tr>
<td>4. Desire to Learn French</td>
<td></td>
<td></td>
<td></td>
<td>.631**</td>
<td>.513**</td>
<td>.571**</td>
<td></td>
</tr>
<tr>
<td>5. Interest in Foreign Languages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.454**</td>
<td>.529**</td>
<td></td>
</tr>
<tr>
<td>6. Motivational Intensity (Effort)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.649**</td>
<td></td>
</tr>
<tr>
<td>7. Persistence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < 0.01.*
Figure 9- Motivational Intensity- Correlational Analysis

Integrative Motivation

Persistence

Desire to Learn French

Attitudes Towards Learning French

Interest in Foreign Languages

Motivational Intensity

0.549

0.649

0.513

0.660

0.454

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Figure 10- Integrative Motivation, Correlational Analysis

- Motivational Intensity
- Interest in Foreign Languages
- Persistence
- Desire to Learn French
- Attitudes Towards Learning French
- Instrumental Motivation

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Self-Efficacy/Valence

The variable Self-Efficacy was found to correlate negatively with all of the four measures of achievement as well as the motivational variables Motivational Intensity, Attention and Persistence. The Self-Efficacy variable was a composite variable, combining the variables French Use Anxiety, French Class Anxiety and Performance Expectancy. It would be expected that the two anxiety variables would correlate negatively with both achievement and the motivational variables, meaning a student with high levels of anxiety would have low achievement and low motivation. For the variable Performance Expectancy, as earlier mentioned, a low score on the performance expectancy scale actually indicated a high level of performance expectancy. Here as well, negative correlations with achievement and motivational variables would be expected as students with high scores would have lower achievement and motivation, and vice versa. Thus, the significant, negative correlations between the composite variable Self-Efficacy with the motivational variables and the achievement variables indicate an important relationship between Self-Efficacy and the achievement variables. Students who demonstrated lower anxiety levels and higher performance expectancy had higher results for the achievement variables as well as higher Motivational Intensity, Persistence, Attention and Valence.

The composite variable Valence consisted of the variables Desire to Learn French and Attitudes Towards Learning French. Positive correlations can be found in Table 3, between Valence and the achievement variables Oral GPA, Writing GPA and Test Score. Positive correlations are also found between Valence and the
motivational variables: Motivational Intensity, Attention, Persistence and Self-Efficacy. See Table 4 for the statistical results for the composite variables Self-Efficacy and Valence.

Table 4- Correlations with self-efficacy and Valence

<table>
<thead>
<tr>
<th></th>
<th>GPA Oral</th>
<th>GPA Reading</th>
<th>GPA Writing</th>
<th>Test Score</th>
<th>Motivational Intensity</th>
<th>Attention</th>
<th>Persistence</th>
<th>Self-efficacy</th>
<th>Valence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Efficacy</td>
<td>-.606**</td>
<td>-.574**</td>
<td>-.558**</td>
<td>-.581**</td>
<td>-.612**</td>
<td>-.493**</td>
<td>-.434**</td>
<td></td>
<td>-.615**</td>
</tr>
<tr>
<td>Valence</td>
<td>.386**</td>
<td>.381**</td>
<td>.247</td>
<td>.455**</td>
<td>.637**</td>
<td>.587**</td>
<td>.675**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01.

Achievement Variables

Table 5 consists of the correlational values and levels of significance between the achievement variables. It can be observed that all of the achievement variables correlate positively with one another, at a significance level of .01.

Table 5- Correlations of achievement variables

<table>
<thead>
<tr>
<th>Achievement Variables</th>
<th>Test score</th>
<th>Oral GPA</th>
<th>Reading GPA</th>
<th>Writing GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test score Pearson corr.</td>
<td></td>
<td>.525**</td>
<td>.640**</td>
<td>.602**</td>
</tr>
<tr>
<td>Oral GPA Pearson corr.</td>
<td></td>
<td></td>
<td>.735**</td>
<td>.653**</td>
</tr>
<tr>
<td>Reading GPA Pearson corr.</td>
<td></td>
<td></td>
<td></td>
<td>.815**</td>
</tr>
</tbody>
</table>

*p<0.01.
Discriminant Function Analysis

The statistical procedure discriminant function analysis was administered to see which variables best classified two groups of students, those with GPA scores at 3.0 and above (group A) and those students with GPA scores below 3.0 (group B).

The variables tested were:

1. Integrative Motivation
2. Instrumental Motivation
3. Attitudes Towards Learning French
4. Desire to Learn French
5. Interest in Foreign Languages
6. Motivational Intensity (Effort)
7. Persistence
8. Attention
9. French Course Evaluation
10. Performance Expectancy
11. French Language Dominance
12. French Class Anxiety
13. Causal Attribution- Ability/Success
14. Causal Attribution- Ability/Failure
15. Causal Attribution- Effort/Success
16. Causal Attribution- Effort/Failure
17. Causal Attribution- Context/Success
18. Causal Attribution- Success/Failure

19. Causal Attribution- Luck/Success

20. Causal Attribution- Luck/Failure

21. Test Score from proficiency test.

This procedure yielded results for achievement in oral GPA, reading GPA and writing GPA groups.

**Oral GPA**

Figure 11 illustrates the motivational variables which significantly discriminate between group A and group B.
Figure 11- Oral GPA, Discriminant Function Analysis

Group A = students with oral GPA 3.0+
Group B = student with oral GPA <3.0

94.0% of the participants are correctly classified.

Int.Mot. = Integrative Motivation
Int.F.L. = Interest in Foreign Languages
Mot.Int. = Motivational Intensity
Perf.Exp. = Performance Expectancy
Fr.Use.Anx. = French Use Anxiety
The variables that discriminated Group A students from Group B students were Integrative Motivation, Interest in Foreign Languages, Motivational Intensity, French Use Anxiety and Performance Expectancy. In this analysis, 94.0% of the participants were correctly classified.
### Table 6-Discriminant Function Analysis, Group Statistics, Oral GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Grp. A- Mean</th>
<th>Grp. B- Mean</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative Motivation</td>
<td>4.74</td>
<td>4.25</td>
<td>**</td>
</tr>
<tr>
<td>Instrumental Motivation</td>
<td>4.38</td>
<td>4.61</td>
<td>NS</td>
</tr>
<tr>
<td>Attitudes Towards Learning French</td>
<td>4.00</td>
<td>3.19</td>
<td>NS</td>
</tr>
<tr>
<td>Desire to Learn French</td>
<td>3.90</td>
<td>3.44</td>
<td>NS</td>
</tr>
<tr>
<td>Interest in Foreign Languages</td>
<td>4.43</td>
<td>3.44</td>
<td>**</td>
</tr>
<tr>
<td>Motivational Intensity (Effort)</td>
<td>4.17</td>
<td>3.31</td>
<td>**</td>
</tr>
<tr>
<td>Persistence</td>
<td>3.76</td>
<td>3.50</td>
<td>NS</td>
</tr>
<tr>
<td>Attention</td>
<td>3.52</td>
<td>3.34</td>
<td>NS</td>
</tr>
<tr>
<td>French Course Evaluation</td>
<td>3.40</td>
<td>2.87</td>
<td>NS</td>
</tr>
<tr>
<td>Performance Expectancy</td>
<td>2.99</td>
<td>4.93</td>
<td>**</td>
</tr>
<tr>
<td>French Language Dominance</td>
<td>4.13</td>
<td>4.59</td>
<td>NS</td>
</tr>
<tr>
<td>French Class Anxiety</td>
<td>2.77</td>
<td>3.28</td>
<td>NS</td>
</tr>
<tr>
<td>French Use Anxiety</td>
<td>2.79</td>
<td>3.61</td>
<td>**</td>
</tr>
<tr>
<td>Ability- Success</td>
<td>4.52</td>
<td>4.33</td>
<td>NS</td>
</tr>
<tr>
<td>Ability- Failure</td>
<td>3.17</td>
<td>3.95</td>
<td>NS</td>
</tr>
<tr>
<td>Effort- Success</td>
<td>4.84</td>
<td>3.90</td>
<td>NS</td>
</tr>
<tr>
<td>Effort- Failure</td>
<td>3.98</td>
<td>4.38</td>
<td>NS</td>
</tr>
<tr>
<td>Context- Success</td>
<td>3.67</td>
<td>4.10</td>
<td>NS</td>
</tr>
<tr>
<td>Context- Failure</td>
<td>3.19</td>
<td>3.90</td>
<td>NS</td>
</tr>
<tr>
<td>Luck- Success</td>
<td>2.91</td>
<td>3.95</td>
<td>NS</td>
</tr>
<tr>
<td>Luck- Failure</td>
<td>2.64</td>
<td>3.62</td>
<td>NS</td>
</tr>
</tbody>
</table>

** means between Group A and Group B discriminate significantly at p<0.01.
NS means between Group A and Group B do not discriminate significantly at p>0.01.

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Reading GPA

Focusing on reading GPA as the achievement variable, figure 12 shows the motivational variables which discriminated the two groups. These variables include:

- Attitudes Towards Learning French.
- Desire to Learn French.
- Interest in Foreign Languages.
- Motivational Intensity.
- Persistence.
- French class evaluation.
- French Use Anxiety.
- Locus of Control attributing both Success and Failure to Luck.
- Performance Expectancy.
- and French Language Dominance.

These values can be reviewed in table 7. In this test, 92.0% of the participants were correctly classified.
Figure 12- Reading GPA, Discriminant Function Analysis

<table>
<thead>
<tr>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A = students with reading GPA 3.0+</td>
<td>Group B = students with reading GPA &lt;3.0</td>
</tr>
</tbody>
</table>

92.0% of the participants are correctly classified.

att.l.f.= attitudes towards learning French
des.l.f.= desire to learn French
mot.int.= motivational intensity
persist.= persistence
f.c.eval.= French class evaluation
perf.exp.= performance expectancy
f.l.d.= French language dominance
f.use.anx.= French use anxiety
loc.lucks= locus of control, luck-success
loc.luckf= locus of control, luck-failure
Table 7- Discriminant Function Analysis. Group Statistics. Reading GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Grp. A- Mean</th>
<th>Grp. B- Mean</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative Motivation</td>
<td>4.88</td>
<td>4.31</td>
<td>NS</td>
</tr>
<tr>
<td>Instrumental Motivation</td>
<td>4.45</td>
<td>4.35</td>
<td>NS</td>
</tr>
<tr>
<td>Attitudes Towards Learning French</td>
<td>4.265</td>
<td>3.222</td>
<td>**</td>
</tr>
<tr>
<td>Desire to Learn French</td>
<td>4.096</td>
<td>3.366</td>
<td>**</td>
</tr>
<tr>
<td>Interest in Foreign Languages</td>
<td>4.675</td>
<td>3.605</td>
<td>**</td>
</tr>
<tr>
<td>Motivational Intensity (Effort)</td>
<td>4.259</td>
<td>3.667</td>
<td>**</td>
</tr>
<tr>
<td>Persistence</td>
<td>3.934</td>
<td>3.338</td>
<td>**</td>
</tr>
<tr>
<td>Attention</td>
<td>3.71</td>
<td>3.10</td>
<td>NS</td>
</tr>
<tr>
<td>French Course Evaluation</td>
<td>3.584</td>
<td>2.861</td>
<td>**</td>
</tr>
<tr>
<td>Performance Expectancy</td>
<td>2.744</td>
<td>4.175</td>
<td>**</td>
</tr>
<tr>
<td>French Language Dominance</td>
<td>4.058</td>
<td>4.444</td>
<td>**</td>
</tr>
<tr>
<td>French Class Anxiety</td>
<td>2.73</td>
<td>3.05</td>
<td>NS</td>
</tr>
<tr>
<td>French Use Anxiety</td>
<td>2.678</td>
<td>3.316</td>
<td>**</td>
</tr>
<tr>
<td>Ability- Success</td>
<td>4.58</td>
<td>4.33</td>
<td>NS</td>
</tr>
<tr>
<td>Ability- Failure</td>
<td>3.11</td>
<td>3.57</td>
<td>NS</td>
</tr>
<tr>
<td>Effort- Success</td>
<td>4.92</td>
<td>4.33</td>
<td>NS</td>
</tr>
<tr>
<td>Effort- Failure</td>
<td>4.11</td>
<td>3.90</td>
<td>NS</td>
</tr>
<tr>
<td>Context- Success</td>
<td>3.78</td>
<td>3.70</td>
<td>NS</td>
</tr>
<tr>
<td>Context- Failure</td>
<td>3.06</td>
<td>3.70</td>
<td>NS</td>
</tr>
<tr>
<td>Luck- Success</td>
<td>2.760</td>
<td>3.574</td>
<td>**</td>
</tr>
<tr>
<td>Luck- Failure</td>
<td>2.458</td>
<td>3.333</td>
<td>**</td>
</tr>
</tbody>
</table>

* means between Group A and Group B discriminate significantly at p<0.01.
NS- means between Group A and Group B do not discriminate significantly at p<0.01.
Writing GPA

Looking at motivational variables when the groups are divided by writing GPA, the lone variable which discriminates the two groups is Performancy Expectancy. The values for the discriminant function analysis- writing GPA can be reviewed in table 8. In this analysis. 88.0% of the participants were correctly classified.
Table 8- Discriminant Function Analysis. Group Statistics. Writing GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Grp. A- Mean</th>
<th>Grp. B- Mean</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative Motivation</td>
<td>4.74</td>
<td>4.53</td>
<td>NS</td>
</tr>
<tr>
<td>Instrumental Motivation</td>
<td>4.45</td>
<td>4.32</td>
<td>NS</td>
</tr>
<tr>
<td>Attitudes Towards Learning French</td>
<td>4.14</td>
<td>3.41</td>
<td>NS</td>
</tr>
<tr>
<td>Desire to Learn French</td>
<td>4.00</td>
<td>3.52</td>
<td>NS</td>
</tr>
<tr>
<td>Interest in Foreign Languages</td>
<td>4.46</td>
<td>3.96</td>
<td>NS</td>
</tr>
<tr>
<td>Motivational Intensity (Effort)</td>
<td>4.20</td>
<td>3.75</td>
<td>NS</td>
</tr>
<tr>
<td>Persistence</td>
<td>3.18</td>
<td>3.53</td>
<td>NS</td>
</tr>
<tr>
<td>Attention</td>
<td>3.60</td>
<td>3.27</td>
<td>NS</td>
</tr>
<tr>
<td>French Course Evaluation</td>
<td>3.46</td>
<td>3.06</td>
<td>NS</td>
</tr>
<tr>
<td>Performance Expectancy</td>
<td>2.76</td>
<td>4.23</td>
<td>**</td>
</tr>
<tr>
<td>French Language Dominance</td>
<td>4.12</td>
<td>4.34</td>
<td>NS</td>
</tr>
<tr>
<td>French Class Anxiety</td>
<td>2.82</td>
<td>2.89</td>
<td>NS</td>
</tr>
<tr>
<td>French Use Anxiety</td>
<td>2.77</td>
<td>3.18</td>
<td>NS</td>
</tr>
<tr>
<td>Ability- Success</td>
<td>4.46</td>
<td>4.55</td>
<td>NS</td>
</tr>
<tr>
<td>Ability- Failure</td>
<td>3.17</td>
<td>3.49</td>
<td>NS</td>
</tr>
<tr>
<td>Effort- Success</td>
<td>4.80</td>
<td>4.53</td>
<td>NS</td>
</tr>
<tr>
<td>Effort- Failure</td>
<td>4.02</td>
<td>4.08</td>
<td>NS</td>
</tr>
<tr>
<td>Context- Success</td>
<td>3.71</td>
<td>3.75</td>
<td>NS</td>
</tr>
<tr>
<td>Context- Failure</td>
<td>3.08</td>
<td>3.71</td>
<td>NS</td>
</tr>
<tr>
<td>Luck- Success</td>
<td>2.79</td>
<td>3.57</td>
<td>NS</td>
</tr>
<tr>
<td>Luck- Failure</td>
<td>2.57</td>
<td>3.18</td>
<td>NS</td>
</tr>
</tbody>
</table>

** means between Group A and Group B discriminate significantly at p<0.01.
NS- means between Group A and Group B do not discriminate significantly at p>0.01.
Regression Analysis

The final statistical test to be administered was regression analysis. Five constructs were examined with the goal of determining which construct would be the best predictor of achievement. Each construct was tested against the students' achievement measures of Oral, Reading and Writing GPA. The five constructs were Anxiety, Motivation, Persistence, Locus of Control/Success and Locus of Control/Failure.

The Anxiety construct combined the variables French Use Anxiety, French Class Anxiety and Attitudes Towards Learning French. The Motivation construct was comprised of the student's scores for variables Motivational Intensity, Instrumental Motivation and Integrative Motivation. The Persistence construct used variables Attention, Motivational Intensity and Persistence. The Locus of Control/Success construct was comprised of Locus of Control-Luck-Success, Locus of Control-Effort-Success, Locus of Control-Ability-Success and Locus of Control-Context-Success. The Locus of Control/Failure construct was a composite using Locus of Control-Luck-Failure, Locus of Control-Effort-Failure, Locus of Control-Ability-Failure and Locus of Control-Context-Failure.

The values for each regression analysis are available in Table 10. It is observed that for all measures of achievement, the Anxiety construct clearly was the best predictor of achievement, compared to the scores of the other four constructs. It is of interest to note that motivation itself was second in Writing GPA, third in Reading GPA and fourth in Oral GPA, despite much research in this paper and other
publications which would have predicted motivation to be the most important factor in achievement.

Table 9- Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Oral GPA R2 value</th>
<th>Reading GPA R2 value</th>
<th>Writing GPA R2 value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>0.265</td>
<td>0.226</td>
<td>0.220</td>
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<tr>
<td>Motivation</td>
<td>0.178</td>
<td>0.219</td>
<td>0.149</td>
</tr>
<tr>
<td>Persistence</td>
<td>0.183</td>
<td>0.224</td>
<td>0.124</td>
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<tr>
<td>Locus of control- success</td>
<td>0.099</td>
<td>0.114</td>
<td>0.131</td>
</tr>
<tr>
<td>Locus of control- Failure</td>
<td>0.189</td>
<td>0.112</td>
<td>0.146</td>
</tr>
</tbody>
</table>
Chapter IV
Discussion

The research for this paper was conducted with the intent of building on Gardner's 1995 study and producing data enabling further assessment of this model. The current sample was different from that of Tremblay and Gardner (1995) study in age (elementary school children instead of high school students) and language dominance (French Immersion students instead of French first language students.) Due to limitations resulting from a smaller than expected sample size, the statistical procedures used in 1995 could not be used. Nonetheless, valuable information was obtained from this research.

Much of this research demonstrated support for the socio-educational approach to L2 acquisition. In correlational analysis, the variables Attitudes Towards Learning French, Desire to Learn French, Interest in Foreign Languages and Motivational Intensity all proved to correlate positively with the various measures of L2 achievement. These variables are all from the AMTB. Predictably, French Use Anxiety correlated negatively with all of the measures of achievement.

Also in correlational analysis, the variables Performance Expectancy and French Language Dominance were found to correlate with achievement. This supports Tremblay and Gardner's revised Socio-Educational Model (1995).

The composite variable Valence was found to correlate positively with measures of achievement and with motivational variables, as hypothesized. Although the composite variable Self-Efficacy had significant negative correlations with both the achievement and motivational variables tested, as explained with the results, these
correlations actually indicate that students with high self-efficacy (low anxiety, high performance expectancy) demonstrate higher motivation and achievement in L2 learning.

The results of the discriminant function analysis extended the results of the correlational analysis and the revised Socio-Educational Model. With all variables entered it could be seen which variables contributed to discriminating between high and low achievement. The variables Integrative Motivation, Interest in Foreign Languages and Motivational Intensity, Performance Expectancy and French Language Dominance and French Use Anxiety all discriminated in the analysis.

Also interesting were the results of the regression analysis. Anxiety, not motivation, explained the most variance for oral GPA, reading GPA and writing GPA. Again, the uniqueness of the FI setting, where the parents made the initial decision for L2 acquisition rather than the children themselves being motivated to learn the L2, separates the results of this study from previous research conducted in the field. In this study, the anxiety levels of the students consistently had the strongest relationships with achievement, compared to the other variables, which included motivation.

This study is different from the Tremblay and Gardner study (1995) as statistical analysis was completed with each achievement variable independently, rather than clustering the variables together. This yielded interesting results for each statistical procedure.

In correlational analysis, the achievement variable oral GPA had the most number of motivational variables significantly correlating with it (N=7.) Oral
communication could be considered the first step in language acquisition, followed by reading and then writing. As we move on to the reading GPA variable, the number of significant correlations with motivational variables decreases slightly (N=5.) Moving on to the most complicated language skill, writing, the number of significant correlations with motivational variables decreases again (N=4.) Consistently correlating significantly with all three of these achievement variables are the following motivational variables: Interest in Foreign Languages, Motivational Intensity, Performance Expectancy and French Use Anxiety.

When reviewing the discriminant function analysis, it is of interest to note that the same four variables that were significant in the correlational analyses discriminated in both the oral GPA and reading GPA discriminant function analyses: Interest in Foreign Languages, Motivational Intensity, Performance Expectancy and French Use Anxiety. The fact that these variables repeat throughout the statistical results suggests their possible significance in achievement in L2 learning.

There were some unpredictable results as well. Firstly, what was lacking in these results was a significant, positive correlation between integrative motivation and achievement. It is speculated that in the F1 situation, it is the parents' decision to enroll the students at young ages into the program of L2 acquisition. Thus, learning the L2 has been the initial goal of the parents, not the children. Expecting the children to possess integrative or instrumental motivation in this situation may not be logical.

This study has various implications for the classroom teacher. Motivational Intensity correlated with achievement consistently. This encourages teachers to
continue to foster classroom learning situations that stimulate and motivate students to learn. As motivation is internal to the student, the teacher cannot instill motivation into the students. Rather, the teacher can provide learning situations that students find interesting, and provide some external rewards (praise, treats) to help give students a boost to become motivated. It is often suggested that teachers gradually wean their students away from external rewards to allow the inherent intrinsic motivation to take over the students' drive to learn.

Other variables that correlated positively with achievement included Attitudes towards French, Desire to Learn French and Interest in Foreign Languages. Studies of French Immersion described earlier (MacFarlane and Wesche, 1995; Van der Keilen, 1995) indicated that former students felt that greater interaction with the francophone community would be beneficial to the program and L2 acquisition. The classroom teacher should provide opportunities for the students to interact with francophones outside the classroom to foster the students' positive attitudes towards learning French and desire to learn French. This could be done through field trips and speakers in the classroom. These events should be integrated into the curriculum regularly and not as "one-time" events. A good example was observed in one school, where the grade eight teacher took her students weekly to visit francophone senior citizens in a nursing home. Another teacher had her students correspond via the Internet with penpals in Quebec on a weekly basis. Occasionally interacting with students from French first language schools for French cultural events (sugaring-off for maple syrup, Carnaval, St-Jean Baptiste Day) would also provide opportunities for enrichment.
To encourage interest in foreign languages, multicultural studies should also be part of the curriculum. Again, guest speakers and field trips help to spark student interest. Special focus on countries and cultures that use French would help students realize the usefulness of bilingualism.

Lastly, the anxiety construct explained the most variance in achievement in the regression analysis (22.0% to 26.8%). These results indicate that teachers need to create an environment where students feel confident to use French, without stress or ridicule from their peers. Grade 6 students are very self-conscious, and need much praise and encouragement from their teachers while speaking French. A difficulty with the FI program is that as students approach a time in their lives of heightened self-consciousness (preteen years), the amount of French used in the classroom is reduced greatly. In the early years of schooling, when students are not as self-conscious, 80% of the program is conducted in French, 20% in English. From grades six to eight, French is used only 50% of the time. These two factors work together to undermine the student's achievement levels in French. While it may be speculated this is only at the oral level of communication, the more inhibited the students become, the less they use the L2. The less they use the L2 orally, the weaker their reading and writing skills become. While less oral communication may reduce anxiety, the results end up with both oral and written L2 language skills deteriorating. As these skills deteriorate, the anxiety only compounds as the L2 skills weaken. Again, the teacher needs to encourage the students' use of French in the classroom and create an environment conducive to the students' confidence in using French. Keeping the level of French at a higher percentage through adolescence would
maintain and likely improve L2 abilities, while reducing the anxiety that would arise from weakening language skills that would arise due to infrequent use of the L2.

The composite variable Valence was found to correlate with both achievement measures and motivational variables. Valence accounts for the value the student gives to a task. The greater the value, the greater effort extended to complete the activity. In order to help students see the value in learning an L2, which increases both motivation and achievement, teachers need to demonstrate to students the usefulness of L2 learning. This can be done by reiterating to students the benefits of bilingualism including both instrumental reasons, such as job opportunities and travel, and integrative reasons, such as expanding their circle of friends. Providing opportunities to use the L2 would also help students appreciate the skill of having an L2. This could be done through interactive and enjoyable field trips that place the students in situations where they would need to use the L2. In one school, a few years ago, the grade eight class of a Fl school completed fundraising to go on a field trip to Quebec City at the end of the year. The students thoroughly enjoyed this experience, and appreciated the opportunity to use the French they had been practicing all throughout grade school.

While providing valuable information, there were some limitations to this study. The small sample size (N=53) limited the type of statistical analysis that could be performed. Thus the LISREL, which was used in the Tremblay and Gardner (1995) study, could not be used. This sample size did allow statistical procedures to identify relationships between the variables, but causality and directionality of the relationships could not be determined due to the small sample size. Another
limitation was the fact that the study was limited to one geographical area. Southwestern Ontario. Including subjects from other geographical areas that have varying exposures to French language and culture (e.g. Sudbury, Ottawa, Montreal) would help to validate the model.

In conclusion, the purpose of this paper was to develop a greater understanding of the factors affecting achievement in L2 acquisition of FI students. It is hoped that further studies in French Immersion will be conducted to validate these results and examine this L2 acquisition program that so many parents continue to choose for their children today.
References


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Appendices

Appendix A
Letter to the Ethics Committee

Home Address

Chair. Graduate Ethics Committee
Faculty of Education, University of Windsor
Windsor. Ontario

Dear Sir.

I am writing to request permission to conduct a research study that will form the basis of my Masters of Education thesis at the University of Windsor.

The study will investigate the relationships between motivation, psychological motivational factors (self-efficacy, attribution, attention, persistence), French language dominance and French achievement of French Immersion students. Five classes of grade 6 French Immersion students will be tested. The students will be asked to complete three questionnaires (samples are enclosed) and a French proficiency test. Additional data will be collected for French achievement from report cards.

The purpose and procedures to be followed in carrying out this research are outlined in the attached research proposal. There are no known risks associated with this research and the subjects may withdraw from the study at any time.

Thank you for your consideration. If you have any questions, I can be reached at 727-3218. My advisor, Dr. X. can also be reached at 253-3000 extension 3800.

Sincerely.

Carolyn Marangelli
Teacher
Home Address
Superintendent
School Board
Address

Dear Sir or Madam,

I am writing to request board approval to conduct a research study that will form the basis of my Masters of Education thesis at the University of Windsor. Dr. Diffey and Dr. Morton from the Faculty of Education are serving as thesis advisors.

The study will investigate the relationships between motivation, psychological motivational factors (self-efficacy, attribution, attention, persistence), French language dominance and French achievement of French Immersion students. Five classes of grade 6 French Immersion students will be tested. The students will be asked to complete three questionnaires (samples are enclosed) and a French proficiency test. Additional data will be collected for French achievement from report cards.

Approval to conduct this research has been granted by the Research Ethics Committee of the Faculty of Education. There are no known risks associated with this research and the subjects may withdraw from the study at any time.

Thank you for your consideration. If you have any questions, I can be reached at xxx-xxxx. My advisor, Dr. Diffey, can also be reached at 253-3000 extension 3800.

Sincerely,

Carolyn Marangelli
Teacher
Appendix C
Letter to the Principal

Home Address

Principal, School
School Board
Address

Dear Sir or Madam,

I am writing to request your approval to conduct a research study in your school that will form the basis of my Masters of Education thesis at the University of Windsor. Dr. Diffey and Dr. Morton from the Faculty of Education are serving as thesis advisors.

The study will investigate the relationships between motivation, psychological motivational factors (self-efficacy, attribution, attention, persistence), French language dominance and French achievement of French Immersion students. Five classes of grade 6 French Immersion students will be tested. The students will be asked to complete three questionnaires (samples are enclosed) and a French proficiency test. Additional data will be collected for French achievement from report cards.

Approval to conduct this research has been granted by the Research Ethics Committee of the Faculty of Education and the School Board. There are no known risks associated with this research and the subjects may withdraw from the study at any time.

Thank you for your consideration. If you have any questions, I can be reached at xxx-xxxx. My advisor, Dr. Diffey, can also be reached at xxx-xxxx.

Sincerely,

Carolyn Marangelli
Teacher
Appendix D
Letter to the Classroom Teacher

Home Address

Teacher. School
School Board
Address

Dear Sir or Madam,

I am writing to request your participation in a research study that will form the basis of my Masters of Education thesis at the University of Windsor. Dr. Diffey and Dr. Morton from the Faculty of Education are serving as thesis advisors.

The study will investigate the relationships between motivation, psychological motivational factors (self-efficacy, attribution, attention, persistence), French language dominance and French achievement of French Immersion students. Five classes of grade 6 French Immersion students will be tested. The students will be asked to complete three questionnaires (samples are enclosed) and a French proficiency test. Additional data will be collected for French achievement from report cards.

Approval to conduct this research has been granted by the Research Ethics Committee of the Faculty of Education, the school board and Ms. Parkin, your principal. There are no known risks associated with this research and the subjects may withdraw from the study at any time.

Thank you for your consideration. If you have any questions, I can be reached at 727-3218. My advisor, Dr. Diffey, can also be reached at 253-3000 extension 3800.

Sincerely,

Carolyn Marangelli
Teacher
Appendix E
Letter to the Parents/Guardians

School address

April 10, 1999

Dear parent(s)/guardian(s).

Currently I am conducting a research study that will form the basis of my Masters of Education thesis at the University of Windsor. Dr. Diffey and Dr. Morton from the Faculty of Education are serving as thesis advisors. This letter serves to inform you as to the nature of my study and to request your permission so that your son/daughter may participate in the study.

The purpose of the study is to determine how different variables, such as self-efficacy and attitudes, relate to student motivation and achievement in French second language learning. This study is focusing upon grade 6 French Immersion students. The students will be asked to complete three questionnaires and a French proficiency test. Your child’s report card grade for French Language Arts will be retrieved from the Ontario Student Record (O.S.R.) to complete data necessary for the research.

Participation in this study is voluntary. Your child can refrain from answering any questions and may withdraw from the study at any time. Complete confidentiality and anonymity of your child’s results and involvement in the study is assured. Your child’s name will not appear on the tests or on any other information forwarded to myself by the school. Your child will be assigned a letter/number code which will be used for data collection.

There are no known risks associated with this research. The results of the study will be available at the Board of Education in September 1999.

Feel free to contact myself at 727-3218 or my advisor, Dr. Diffey, at 253-3000 extension 3800 at any time should you have any questions or concerns. You may also contact Dr. Morton (chair of the Research Ethics Committee) at 253-3000 extension 3800 to address any concerns or complaints you may have.
Thank you in advance for your co-operation.

Sincerely.

Carolyn Marangelli
Teacher

Please promptly return this letter to school to allow your child to participate in the study. Thank-you.

I understand the information provided regarding this study and grant permission for my child to participate in the study. I allow access to my child’s Ontario Student Record for retrieval of his/her report card grade.

Child’s name ____________________ Parent signature ____________________ Date ____________________
Appendix F

Attitudes/Motivation Questionnaire

Instructions

Following are a number of statements with which some people agree and others disagree. There are no right or wrong answers since many people have different opinions.

Please circle a number for each one of the statements according to the amount of your agreement or disagreement by using the following scale:

+1 slight agreement (support)  
+2 moderate agreement (support)  
+3 strong support

-1 slight disagreement (opposition)  
-2 moderate disagreement (opposition)  
-3 strong disagreement (opposition)

The following sample item will serve to illustrate the basic procedure.

a. Playing on school sports teams helps to make school fun.

-3 -2 -1 +1 +2 +3

STRONG MODERATE MILD MILD MODERATE STRONG

DISAGREEMENT DISAGREEMENT AGREEMENT AGREEMENT AGREEMENT

In answering this question, you should have circled the number corresponding to one of the alternatives above. Some people would have circled 3 (strong agreement), others would have circled -3 (strong disagreement), while others would have circle any of the alternatives in between. Which one you choose would indicate your own feelings based on everything you know and have heard. Note, there is no right or wrong answer.

1. I keep up to date with French by working on it almost every day.

-3 -2 -1 +1 +2 +3

2. I do not get anxious when I am asked for information in French during class.

-3 -2 -1 +1 +2 +3

3. I find the study of French very boring.

-3 -2 -1 +1 +2 +3

4. I wish I had learned some French before I started school.

-3 -2 -1 +1 +2 +3

5. I would rather spend more time learning French Language Arts and less time on other subjects.

-3 -2 -1 +1 +2 +3

6. It doesn’t bother me at all to speak French.

-3 -2 -1 +1 +2 +3
7. I often wish I could read newspapers and magazines in another language.

-3 -2 -1 +1 +2 +3

8. Studying French is important because it will enable me to better understand French Canadian life and culture.

-3 -2 -1 +1 +2 +3

9. I am sometimes afraid other students will laugh at me when I speak French.

-3 -2 -1 +1 +2 +3

10. Studying French is important because it will give me an edge in competing with others.

-3 -2 -1 +1 +2 +3

11. I enjoy the activities in our French Language Arts period much more than my other periods.

-3 -2 -1 +1 +2 +3

12. I tend to approach my French homework in a random and unplanned manner.

-3 -2 -1 +1 +2 +3

13. Knowing French isn't really an important goal in my life.

-3 -2 -1 +1 +2 +3

14. I think it is important to learn to speak and read French.

-3 -2 -1 +1 +2 +3

15. I feel confident when asked to participate in French at school.

-3 -2 -1 +1 +2 +3

16. I really have no interest in foreign languages.

-3 -2 -1 +1 +2 +3

17. Studying French can be important for me because it will allow me to meet and converse with more and varied people.

-3 -2 -1 +1 +2 +3

18. I feel anxious if someone asks me something in French.

-3 -2 -1 +1 +2 +3

19. I really work hard to learn French.

-3 -2 -1 +1 +2 +3

20. To be honest, I really have little desire to learn French.

-3 -2 -1 +1 +2 +3

21. I get nervous and confused when I am speaking French in class.

-3 -2 -1 +1 +2 +3
22. I wish I could speak another language perfectly.

23. French is really great.

24. Studying French can be important to me because I think it will someday be useful in getting a good job.

25. When called upon to use my French, I feel very much at ease.

26. My French Language Arts period is really a waste of time.

27. I can't be bothered trying to understand the more complex aspects of French.

28. I wish I were more fluent in French.

29. I would rather spend more time on subjects other than French.

30. Most foreign languages sound crude and harsh.

31. Studying French is important because it will allow me to participate more feely in the activities of French Canadians.

32. It would bother me if I had to speak French on the telephone.

33. I think French Language Arts is boring.

34. I don't usually get anxious when I have to respond to a question in French.

35. I make a point of trying to understand all the French I see and hear.

36. Speaking French bothers me.

37. I really enjoy learning French.
38. Students who claim they get nervous using French in class are just making excuses.

39. Studying a foreign language is not a pleasant experience.

40. I don't bother checking my corrected French assignments.

41. French Language Arts activities are a lot of fun.

42. I want to learn French well so that it will become second nature to me.

43. I hate French.

44. When I am studying French, I ignore distractions and stick to the job at hand.

45. Studying French is important for me because it will increase my ability to influence others.

46. I would feel calm and sure of myself if I had to order a meal in French.

47. It worries me that other students in my class seem to speak French better than I do.

48. I look forward to the time I spend learning French Language Arts.

49. I would really like to learn many foreign languages.

50. I sometimes daydream about dropping French.

51. If I planned to stay in another country, I would make a great effort to learn the language even though I could get along in English.

52. Studying French is important because it will allow me to gain good friends more easily among French Canadians.
53. I would feel uncomfortable speaking French under any circumstances.  
   -3 -2 -1 +1 +2 +3

54. Learning French is a waste of time.  
   -3 -2 -1 +1 +2 +3

55. I haven’t any great wish to learn more French than I already know.  
   -3 -2 -1 +1 +2 +3

56. When I have a problem understanding something we are learning in French, I always ask the teacher for help.  
   -3 -2 -1 +1 +2 +3

57. To be honest I really have little interest in French Language Arts.  
   -3 -2 -1 +1 +2 +3

58. I love learning French.  
   -3 -2 -1 +1 +2 +3

59. Learning foreign language is a waste of time and effort.  
   -3 -2 -1 +1 +2 +3

60. Studying French is important because it will make me more respected by others.  
   -3 -2 -1 +1 +2 +3

61. I would feel quite relaxed if I had to ask street directions in French.  
   -3 -2 -1 +1 +2 +3

62. It embarrasses me to volunteer answers in French in class.  
   -3 -2 -1 +1 +2 +3

63. I put off doing my French assignments as long as possible.  
   -3 -2 -1 +1 +2 +3

64. AS I grow older, I find I’m losing any desire I ever had in knowing French.  
   -3 -2 -1 +1 +2 +3

65. When I finish grade school, I shall give up the study of French entirely because I am not interested in it at all.  
   -3 -2 -1 +1 +2 +3

66. I enjoy meeting and listening to people who speak other languages.  
   -3 -2 -1 +1 +2 +3

67. I would get nervous if I had to speak French to someone in a store.  
   -3 -2 -1 +1 +2 +3

68. I don’t understand why other students feel nervous about using French in class.  
   -3 -2 -1 +1 +2 +3
<table>
<thead>
<tr>
<th></th>
<th>STRONG DISAGREEMENT</th>
<th>MODERATE DISAGREEMENT</th>
<th>MILD DISAGREEMENT</th>
<th>MILD AGREEMENT</th>
<th>MODERATE AGREEMENT</th>
<th>STRONG AGREEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>There is never anything fun to learn during French Language Arts.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>70</td>
<td>I don't pay too much attention to feedback I receive regarding French assignments.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>71</td>
<td>I would like to learn as much French as possible.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>Seeing that Canada is far away from countries speaking other languages, it is not important for Canadians to learn foreign languages.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>I would feel comfortable speaking French in an informal gathering where both English and French speaking persons were present.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>I never feel quite sure of myself when I am speaking French in class.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>French Language Arts is one of my favourite subjects.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>If it were up to me, I would spend all of my time learning French.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>I plan to learn as much French as possible.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>I have a hard time thinking of anything positive about my French class.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
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</tr>
<tr>
<td>79</td>
<td>I can concentrate very well when I study French.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
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<tr>
<td>80</td>
<td>I find it difficult to pay attention to my French homework.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
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</tr>
<tr>
<td>81</td>
<td>I often do not complete French assignments.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
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</tr>
<tr>
<td>82</td>
<td>I keep working at French assignments that demand a lot of effort.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>83</td>
<td>The most important ingredient in learning French is my general ability.</td>
<td>-3 -2 -1 +1 +2 +3</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
84. If I did not succeed in a French course it would probably be because I lacked the skill required to learn a language.
-3 -2 -1 +1 +2 +3
STONG MODERATE MILD MILD MODERATE STRONG DISAGREEMENT DISAGREEMENT AGREEMENT AGREEMENT AGREEMENT AGREEMENT

85. When I receive a poor grade in a French course, it is because I haven't studied enough for that course.
-3 -2 -1 +1 +2 +3

86. My success in French is due mostly to the help I have received from others.
-3 -2 -1 +1 +2 +3

87. The reason that my French marks are not higher is because French is a difficult subject.
-3 -2 -1 +1 +2 +3

88. My success in French depends on good breaks.
-3 -2 -1 +1 +2 +3

89. The reason my French grades are not higher is because I have no luck.
-3 -2 -1 +1 +2 +3

90. My French grade would be higher if I had been more luck during tests.
-3 -2 -1 +1 +2 +3

91. My success in French is due to good luck.
-3 -2 -1 +1 +2 +3

92. My accomplishments in French are due mainly to the quality of teaching.
-3 -2 -1 +1 +2 +3

93. Whenever I receive a high grade in a French, it is because I have studied a lot.
-3 -2 -1 +1 +2 +3

94. If I were to receive a low mark in a French course, it would cause me to question my French ability.
-3 -2 -1 +1 +2 +3

95. Often, if I speak to someone in French, I switch to English before the conversation is over.
-3 -2 -1 +1 +2 +3

96. I work on my French assignments very regularly.
-3 -2 -1 +1 +2 +3

97. It is easy for me to think when I work on a French task.
-3 -2 -1 +1 +2 +3

98. My French grade would be higher if I had received more inspiration during writing assignments.
3 -2 -1 +1 +2 +3
-3 -2 -1 +1 +2 +3
STRONG MODERATE MILD MILD MODERATE STRONG
DISAGREEMENT DISAGREEMENT AGREEMENT AGREEMENT AGREEMENT

99. If I did not get a passing grade in French Language Arts, the reason for this failure would be a lack of effort.
-3 -2 -1 +1 +2 +3

100. When I receive a high grade in French, I believe that I have been fortunate.
-3 -2 -1 +1 +2 +3

101. If I received an unsatisfactory grade on a French assignment, I would start working on French homework immediately.
-3 -2 -1 +1 +2 +3

102. When I receive a low grade in my French Language Arts, it is because the teacher has failed to make the material interesting.
-3 -2 -1 +1 +2 +3

103. I can go for long periods of time without practicing my French.
-3 -2 -1 +1 +2 +3

104. My success in learning French is a direct result of my effort.
-3 -2 -1 +1 +2 +3

105. I can overcome the obstacles of learning French if I work hard enough.
-3 -2 -1 +1 +2 +3

106. Many distractions bother me when I am studying French.
-3 -2 -1 +1 +2 +3

107. I am often curious about many things in French.
-3 -2 -1 +1 +2 +3

108. Sometimes I receive good grades in French because the teacher is not very demanding.
-3 -2 -1 +1 +2 +3

109. Nothing distracts me when I study French.
-3 -2 -1 +1 +2 +3

110. I often withdraw for long periods of time without working at learning French.
-3 -2 -1 +1 +2 +3

111. I feel that my progress in learning French is due mostly to my ability.
-3 -2 -1 +1 +2 +3

112. I forget everything around me when I study French.
-3 -2 -1 +1 +2 +3

113. When I am not satisfied with my results in French, I assume I lack the ability to succeed at that task.
-3 -2 -1 +1 +2 +3
<table>
<thead>
<tr>
<th></th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRONG DISAGREEMENT</td>
<td>MODERATE DISAGREEMENT</td>
<td>MILD DISAGREEMENT</td>
<td>MILD AGREEMENT</td>
<td>MODERATE AGREEMENT</td>
<td>STRONG AGREEMENT</td>
<td></td>
</tr>
</tbody>
</table>

114. At times when I don't succeed in French exercise as much as I want to, it is due to a lack of effort on my part.

115. I tend to give up at French tasks that demand a lot of time.

116. I can work for a long time on French assignments without a break.

117. Studying French doesn't really capture my attention.

118. I often find myself thinking about other school subjects when I study French.

119. I practice my French regularly.

120. I often find myself daydreaming in my French class.

121. When I get a poor grade in French it is because the teacher has presented difficult material.

122. When I get good grades in my French course it is because of my language ability.
Appendix G

Performance Expectancy Dominance

Performance Expectancy

The purpose of this questionnaire is to measure the level of French you think you are able to reach by the end of your schooling. NOTE that we DO NOT ask you what you HOPE to accomplish, but rather to express your level of EXPECTANCY with respect to a number of tasks in French. You will use the following scale:

<table>
<thead>
<tr>
<th>Definitely Yes</th>
<th>Probable</th>
<th>Unlikely</th>
<th>Definitely No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Consider the following example:

“Understand the meaning of most French proverbs.”

A student that is certain that s/he could, by the end of the French course, understand the proverbs would circle the “1”. A student might believe that s/he can understand the proverbs, but is not totally certain, and therefore would circle the “2” or “3.” A third student may believe that s/he will never be able to understand the proverbs, and therefore would circle the “7” possibly “6” or “5”. Another student believes that s/he may or may not understand the proverbs, and therefore would circle the “4.”

---Begin on the next page---
<table>
<thead>
<tr>
<th>Definitely Yes</th>
<th>Probable</th>
<th>Unlikely</th>
<th>Definitely No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Understand**

I could by the end of grade school:

1. Clearly understand the sense of an article in a French newspaper.
   - 1  2  3  4  5  6  7

2. Clearly understand the sense of a film produced in France.
   - 1  2  3  4  5  6  7

3. Clearly understand the sense of news on a French radio station.
   - 1  2  3  4  5  6  7

4. Understand the meaning of all the French signs in Quebec.
   - 1  2  3  4  5  6  7

5. Understand a discussion between two individuals from France.
   - 1  2  3  4  5  6  7

6. Understand and know how to correct "les anglicismes."
   - 1  2  3  4  5  6  7

7. Understand the meaning of many French expressions.
   - 1  2  3  4  5  6  7

8. Clearly understand the sense of dialogue on a French television talk show.
   - 1  2  3  4  5  6  7

9. Understand French well enough to teach a French lesson to grade 5 students.
   - 1  2  3  4  5  6  7

10. Understand French well enough to find proper meanings in a French dictionary and use the "Bescherelle" effectively.
    - 1  2  3  4  5  6  7
Definitely Yes Probable Unlikely Definitely No
1  2  3  4  5  6  7

Write

I could by the end of grade school:

1. Write a French mini novel.
   1  2  3  4  5  6  7

2. Be chosen as a contestant for a French spelling competition at the provincial level.
   1  2  3  4  5  6  7

3. Write a French essay within an hour without any mistakes (dictionary allowed.)
   1  2  3  4  5  6  7

4. Write a research report based on an unknown topic.
   1  2  3  4  5  6  7

5. Conjugate without any errors, and without any dictionary or other book, first group 1 French verbs in the present tense.
   1  2  3  4  5  6  7

6. Teach French grammar to grade four students.
   1  2  3  4  5  6  7

7. Write an article in French for the school newspaper.
   1  2  3  4  5  6  7

8. Win a French essay contest in my school.
   1  2  3  4  5  6  7

9. Write a French essay using a combination of the present, past and imperfect (imparfait) tenses.
   1  2  3  4  5  6  7

10. Write a complete sentence of 20 words in French without a dictionary.
    1  2  3  4  5  6  7
Definitely Yes  Probable  Unlikely  Definitely No
1  2  3  4  5  6  7

Speak

I could by the end of grade school:

1. Maintain a conversation in French with my friends.
   1  2  3  4  5  6  7

2. Recite a poem with perfection in front of the class.
   1  2  3  4  5  6  7

3. Use present and past tenses without difficulty during a French conversation.
   1  2  3  4  5  6  7

4. Speak French confidently with the public on a part-time job.
   1  2  3  4  5  6  7

5. Give a ten minute speech in French in front of a crowd of people.
   1  2  3  4  5  6  7

6. Play the lead role in French in a school production.
   1  2  3  4  5  6  7

7. Speak French well enough to be able to teach it at the grade 4 level.
   1  2  3  4  5  6  7

8. Speak French well enough to role play as an announcer of a French television national news program.
   1  2  3  4  5  6  7

9. Take part in a national debate with other French students from across Canada.
   1  2  3  4  5  6  7

10. Describe very well my favourite hobby to a group of students in French.
    1  2  3  4  5  6  7
Appendix H

French Language Dominance Questionnaire

The following items are multiple choice questions. For each question, choose the answer that best reflects your use of French. Answer as honestly as possible.

1. Choose between one of the following answers:
   a) I speak French much better than English
   b) I speak French slightly better than English
   c) I speak as well in French as in English
   d) I speak English slightly better than French
   e) I speak English much better than French

2. Choose between one of the following answers:
   a) I write much better in French than in English
   b) I write slightly better in French than English
   c) I write as well in French as in English
   d) I write slightly better in English than French
   e) I write much better in English than in French

3. Choose between one of the following answers:
   a) I understand French much better than English
   b) I understand French slightly better than English
   c) I understand as well in French as in English
   d) I understand English slightly better than French
   e) I understand English much better than French

4. At home, I
   a) always speak French
   b) speak French most of the time
   c) speak French half of the time
   d) almost never speak French
   e) never speak French

5. At school, outside of the classrooms, I
   a) always speak French
   b) speak French most of the time
   c) speak French half of the time
   d) almost never speak French
   e) never speak French

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6. If I had to count from 1 to 10 in my head, I would
   
   a) always count in French
   b) almost always count in French
   c) count in French about half the time
   d) almost never count in French
   e) never count in French

7. If I had to recite the months of the year in my head, I would
   
   a) always recite them in French
   b) almost always recite them in French
   c) recite them in French half the time
   d) almost never recite them in French
   e) never recite them in French
Vita Auctoris

Carolyn Marangelli was born in 1970 in Windsor, Ontario. She graduated from Assumption College School in 1989. She then completed a Bachelor in Education at McGill University in Montreal, Quebec. Carolyn is currently a candidate for the Master's degree in Education at the University of Windsor and hopes to graduate in the Fall 2001. She is married to William, has a daughter Camilla and another child on the way.