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A Social Psychological Approach to Preserving Heritage Languages:
The Survival of Gaelic in Nova Scotia

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A social psychological approach to preserving heritage languages:

The survival of Gaelic in Nova Scotia

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SUMMARY

Language has been seen as a central pillar to ethnic identity. When languages are at risk, therefore, the relationship between language and ethnic identity can become particularly salient (Edwards, 1991). Heritage languages, in particular, often face what has been called a language shift, where the heritage language is replaced by the dominant language. When the heritage language is threatened, what happens to the heritage identity? In an attempt to answer this question, this study investigated the relationship between language and ethnic identity among 75 Gaelic learners living in eastern Nova Scotia. In order to identify the specific processes of heritage language use, the Gaelic learners were compared to non-learners of Gaelic and French learners living in the same milieu. Path analyses indicated that, among Gaelic learners, there is an initial separation of language and ethnic identity, but that, over time, ethnic identity is a direct outcome of language use. This finding was unique to the heritage language learners. Further, desired language vitality was a direct precursor to contact, language confidence, Gaelic and Anglophone identity and willingness to communicate among Gaelic learners. Actual language vitality played no role in the language use process among Gaelic learners, suggesting that vitality perceptions that are egocentric are better predictors of language use than those that are exocentric. The implications of these findings are discussed not only in relation to the future of Gaelic in Nova Scotia, but also to the survival of heritage languages in general.

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CHAPTER 1

INTRODUCTION

Over the past few decades, social psychological researchers have been actively developing theories of language acquisition and ethnic identification. This is particularly true in Canada, where the promotion of bilingualism has traditionally been a priority. The focus has been, however, primarily on *second* official language acquisition, that is, French and English. The Royal Commission on Bilingualism and Biculturalism announced intentions to support the multicultural and multilingual nature of Canada nearly 40 years ago, but the focus of language research, to date, has not necessarily reflected this objective. According to Pendakur and Hennebry (1998), Canada is one of the most linguistically and culturally diverse countries in the world. In fact, the 2001 Canadian census reported that nearly half (44%) of the total population reported ethnic origins other than French, British or Canadian. Yet, according to Isajiw (1990), many groups fail to maintain their original language and ethnicity over time. Preserving heritage languages is a desirable aspect of Canada's multicultural character. More research, therefore, needs to include *heritage* languages as part of the investigation of language acquisition and ethnic identification.

Although heritage language (HL) research has demonstrated the importance of HL maintenance, it has failed to contribute to the understanding of HL development. Second language (L2) research, on the other hand, has been far more inclusive in its study of L2 learning. In an attempt to fill the void, this study applies concepts derived from theory and research on L2 use to the context of HL learning. The objective is to explore the relationship between language and identity among Gaelic language learners living in eastern Nova Scotia. To capture the unique processes pertaining to heritage language learning and identification, this

study places Gaelic learners against the backdrop of (1) second language learners; (2) non-learners of Gaelic with a Gaelic heritage; (3) non-learners of Gaelic without a Gaelic heritage. Specifically, the present study is a comparative and longitudinal investigation of Gaelic, French and non-Gaelic learners living in the same unilingual (English) context.

This first chapter is divided into five main sections. The first is a brief history of Gaelic in Nova Scotia. Second, an empirical and theoretical overview of the research findings and limitations is presented. Third, the limitations of previous heritage language research and suggestions for improvement are outlined. The model of L2 use and the proposed model of heritage language use are presented in the fourth section. Finally, in a chapter summary, the goals and hypotheses of the present study are delineated.

History of Scots Gaelic

Emigration to Eastern Nova Scotia

There is an old Gaelic proverb that says “a sharing of gold is but brief, but a sharing of song lasts long”. When Scottish emigrants ventured to Nova Scotia, they certainly did not bring a world of wealth with them, but they did bring their greatest asset---their Gaelic language. The Gaelic language has been an integral part of Nova Scotia’s and, in particular, Cape Breton’s culture for centuries. With its origins in Scotland, Gaelic was the mother tongue of most of the island’s population. Unfortunately changes have taken place over the years that have threatened the future of the Gaelic language. By the 18th century, English rule began to take control and the Gaelic stronghold was continuing to break down. The Gaels, once prominent landowners, became tenants who had no rights to land and were at the mercy of their new landlords. The

change in status of the Gaelic people caused a clearing of the Highlands, and eventually the emigration to Nova Scotia, and eventually Cape Breton, began.

Pictou was the first county of Nova Scotia to receive an influx of Scottish Gaels (Kennedy, 2002). The first settlers arriving aboard the *Hector*, faced a challenging year after having not received the winter supplies and land they were promised by the Philadelphia Company. Pictou, though, provided a good harbour and agricultural possibilities to its settlers. Thus, the Gaels eventually prospered and further settlements developed east in Antigonish and on Cape Breton Island.

The largest Gaelic settlement began in Cape Breton following the Jacobite Rising in 1745¹. Scottish Gaels began to experience political and religious hardships that lead them to seek out a better life for themselves (Dunn, 1953; Kennedy, 2002; MacDonald, 2000). They chose to leave Scotland, resulting in the massive emigration to Cape Breton that began in the late 18th century and continued into the late 19th century. In a span of just 20 years, the population of Cape Breton grew from 7,000 in 1817 to 38,000 in 1836 (MacDonald, 2000). Since there were few major settlements prior to the arrival of the Gaels, it was only natural that the region became predominantly Gaelic. Settlement would have been a much more difficult endeavour had it not been for the fact that, in addition to the poor, lower class, the leaders in society chose to emigrate as well. Having this educated middle class (called tacksmen) move to Cape Breton provided the resources necessary to properly begin the settlement process (Kennedy, 2002). Thus, although a large portion of those who came to Cape Breton were farmers and fishermen, there were doctors, teachers, writers, musicians and clerics among them to offer their expertise.

¹ Jacobite comes from the Latin for James, which refers to James VII of Scotland and James II of England. The risings refer to James' attempts to re-establish his power in Scotland. There were five risings in all starting in 1689, with the Jacobite rising of 1745 being the last.

This certainly is not the picture of the poor, disadvantaged underdog that has typically been associated with the Scottish Gaels who came to Cape Breton Island. By all accounts, they were a strong, enthusiastic group of people who were ready to re-establish themselves. This likely explains why, even after decades of attempting to abolish the Gaelic culture completely, it still remains an integral part of Nova Scotia's and, in particular, Cape Breton's social identity.

While there were a large number of Gaelic speakers inhabiting much of the island around the mid 1800s, the fibre of Cape Breton was nevertheless very multicultural. English speakers controlled much of the prime land across Nova Scotia, French speakers had substantial settlements primarily in western Nova Scotia, German speakers controlled much of Lunenburg and Mi'kmaq could be found in small rural parts throughout Nova Scotia (Kennedy, 2002). Given that few records were kept at the time, it is difficult to estimate the exact ratio of Gaelic to English speakers, but by the late 1890s, the Gaelic language began to dominate and even replace English as the majority language across the province (Dunn, 1953; Kennedy, 2002). Gaelic speakers were enjoying a time when they could take advantage of the opportunity to advance their language as the English speakers had before them. In fact, Gaelic's status was brought to the Senate and, in 1890, a bill was proposed that would make Gaelic Canada's third official language. The argument behind the bill was that the Scottish and Irish population outnumbered the French and English. Thus, the sheer number of Gaelic speakers was the rationale behind affording the Gaelic language official status. Unfortunately, opponents of the bill argued that the only way to move forward was to leave those weaker languages and cultures behind. In the end, the bill was not passed and Gaelic never received official language status.

Scottish Gaels now found themselves in the situation where English, a language they did not speak, was the dominant language and, Gaelic, their native tongue, had no chance for growth.

Having no official language and cultural rights meant that Gaels would not be given the opportunity to utilize their language at the institutional and professional levels (Kennedy, 2002). Gaels, therefore, were forced to assimilate quickly into a language and culture with which they had little to no daily contact. The Scottish settlements in Nova Scotia were so extensive and clustered that the English language represented the minority. Expecting the Gaels to acquire the English language and culture was, therefore, an unrealistic goal. By the 19th century, however, English had become so dominant and widespread that signs of Gaelic culture and language were disappearing. The literature, arts, and music of the Gaelic culture were but a distant memory. Even the well-educated Gaelic professionals could not find a venue in which to use their native tongue. Gaels were forced to seek literacy in their language outside of any formal education as the policies that were beginning to take shape in Nova Scotia and Cape Breton were most evident in the schools (Kennedy, 2002).

The intent of the early education system that was developing in Nova Scotia and Cape Breton was to eradicate the Gaelic language entirely. Gaels did not have the necessary resources (i.e. reading material, teachers) to implement their own educational system. Gaelic speakers, therefore, would not be able to receive any formal early education in their language or culture. While there were similar obstacles, more positive strides were made in higher education institutions. Pictou Academy and the College of Saint Francis Xavier (now called Saint Francis Xavier University) were established in the Gaelic districts of Nova Scotia. Neither college initially, however, had a Gaelic curriculum. Ironically, St. Francis Xavier was founded by Bishop Colin MacKinnon, who was a Gael himself. The students could enjoy *camanachd*, a traditional Gaelic sport, but the language itself was not taught (Kennedy, 2002). It was not that the higher education institutions were adverse to multicultural education. French, for example,

was taught very early on in the establishment of St. Francis Xavier. Rather, it was simply the attitudes toward the Gaelic language specifically, which may have been the reason for its exclusion from the curriculum. Due to the lack of status given to the Gaelic language in education, it would continue to weaken into the 20th century.

The Present State of Gaelic

There has been a drastic decline of the Gaelic language in eastern Nova Scotia during the last few decades. In 1971, the population of native Gaelic speakers in Nova Scotia and Cape Breton was 1420 and 965 respectively, whereas in 2001, those numbers decreased to 415 in Nova Scotia and 115 in Cape Breton (Vitale Cox, 1994; Statistics Canada, 2001). Due to the continued lack of support afforded the Gaelic language and culture over the years, it is not surprising that the Gaelic language in Nova Scotia is far less defined today. There has been, however, a resurgence of interest from new learners in the language in the past several years. This new generation of Gaelic language learners is, nevertheless, faced with the problem of a lack of resources to teach the language. The number of native speakers is dwindling, so there are few left who can actually teach the language.

Currently Saint Francis Xavier University and the University College of Cape Breton offer classes in both the history of Gaelic and the Gaelic language. Also, the Gaelic College of Celtic Arts and Crafts provides one-week summer courses in the Gaelic language to people from all over the world who want to re-introduce themselves to their cultural roots. Currently, though, there are no programs to teach Gaelic to younger children.

In addition to educational institutions, the number of social institutions using Gaelic has become fewer and fewer over the years. The situation is not entirely bleak, however, as there are still some activities through which the Gaelic culture can be transmitted. Cape Bretoners, for

example, can attend the occasional Ceilidh in the evenings. A Ceilidh is a gathering where people sing traditional songs and take part in storytelling. The Ceilidhs are not simply pure entertainment, they are educational as well. After the singing and dancing, people sit down for a discussion to talk about the history of the song or the story. It is a way for people to share their collective knowledge about their culture. In this way, the localized traditions are still being maintained on the island. It is, perhaps, the combination of the geographical isolation of Cape Breton Island in particular and the unwillingness to relinquish ties to old traditions that have helped the Gaelic culture survive even in the face of decades of oppression.

The Gaelic language resources for those who are showing an interest in learning the language are not, however, becoming more numerous as time goes on. They are sparse now and could continue to decline until there are none at all. As a result, it is reasonable to assume that Gaelic language learners have had to take the initiative to seek out Gaelic language learning opportunities. Further, promoting the Gaelic language at home becomes an essential asset to the maintenance and development of the language. Thus, it becomes necessary to identify heritage language learners, their agendas for learning the language and their sources of language learning in the absence of institutional support.

Empirical and theoretical background

Towards a Definition of Heritage Language/Learner

Kagan and Dillon (2001) argue that heritage language instruction is becoming an important part of language education. In the past few years, there has been a shift in interest toward those less commonly taught languages. Given this and the increased attention from applied linguistic research into heritage language instruction, there is a growing need to clarify what is meant by heritage language and heritage learner. According to Van Deusen-Scholl

(2003), ‘despite the fact that the terms heritage language, heritage language speaker, and heritage language learner are gaining currency (cf. Wiley, 2001a, p. 29), the concept remains ill defined and is sensitive to a variety of interpretations within social, political, regional, and national contexts’(pg. 212). Thus, terminology and definitions may be sensitive to the situation in question.

Indeed, Van Deusen-Scholl (2003) argues that the problem may be that the status of a language is socially determined and that a language is deemed a heritage language in relation to the context. He postulates that Spanish, for example, is considered a heritage language in the United States, although it is a majority language elsewhere. Therefore, using the term ‘heritage’ to describe some languages in particular contexts brings the risk of reducing its value at a global level². Despite its frequent use, the term heritage, itself, has been seen by many as having negative connotations (Van Deusen-Scholl, 2003; Baker & Jones, 1998) as, when compared to dominating languages like English, it makes reference to something belonging in the past. Thus, using the term heritage to denote a language raises the possibility that the value of such a language could be lost in contemporary society.

Given the diversified nature of heritage languages, the definitions tend to vary depending not only on the context, but on the perspective as well. For example, from the perspective of the learner, classification of a language as ‘heritage’ seems to depend on the degree to which the learner connects his/her personal identity with the language. To clarify, a language may be considered a heritage language even if the learner hardly speaks that language. Thus, under this definition the heritage learner may not necessarily have any proficiency in the language. The

² Some researchers have opted for alternatives to the term “heritage”. For example, Wharry (1993) uses ‘ancestral language’, whereas Clyne (1991) uses ‘community language’.

learners may simply be interested in the language because of its connection to their ancestral roots (Kondo-Brown, 2003). The second perspective is from that of the language educator, where proficiency appears to be a more determining factor in identifying heritage learners. From the pedagogical viewpoint, the heritage learner is one who is bilingual in their home language and in English. Specifically, Valdés (2001) proposed three criteria to identify heritage learners: they are raised in homes where a language other than English is spoken, speak the heritage language, and are bilingual in English and the heritage language. Thus, the definition of a heritage learner can range from the fluent speaker of the heritage language to the passive learner who is generations removed from the language, but nevertheless strongly connected to it.

Contrary to defining heritage learners in terms of proficiency, Van Deusen-Scholl (1998, 2003) distinguished between heritage learners and learners with a heritage motivation. Heritage learners are those who have a strong cultural connection to the language through interaction with family members. Learners with a heritage motivation also have a cultural connection to the language, but it is much more distant. For example, students in university may take a course in their heritage language in order to get back in touch with their cultural roots even though they may have lost the linguistic connection generations before. Generally, when it comes to heritage languages, less attention has been given to personal agendas behind ethnic identification and more on what gives learners the incentive to want to learn a particular language they believe has links to their cultural heritage.

Taken together, in the context of the present study, the heritage language is one that has a strong cultural identity in the community, but has undergone a language shift and, as a result, has very few speakers. Further, taking a cue from Van Deusen-Scholl (1998, 2003), the language learners in the present context are likely learners with a heritage motivation. It is reasonable to

assume they are not connected to Gaelic through daily interactions with family members due to the small number of native speakers that remains. Language proficiency may be relative to the goals of the language learners. Native-like fluency in Gaelic may not be as important to the learners as connecting with their culture. Thus, while objective measures of proficiency are useful, it may be more relevant to examine subjective beliefs of language ability and how they relate to the students' linguistic needs and desire to be a part of a cultural group.

Intergenerational Transmission of Heritage Languages

Ideally, heritage languages should be learned in school. It is often the case, however, that educational policies do not include the teaching of heritage languages in their curriculum. Those who are opposed to the schools providing heritage language education programs argue that such programs will inhibit children's functioning in an English-dominated society. However, even in those educational institutions where the demand is seemingly being met and heritage languages are used in classroom instruction, the intent of many programs is to use the heritage language to facilitate the transition into the dominant language and culture (DeVillar, 1994; McLaughlin, 1985; Romaine, 1995; Ruiz, 1988). Heritage language education, therefore, is a temporary transitional phase to assist the assimilation into the school and into the dominant language. In contrast, heritage languages tend to rely more on intergenerational transmission for their survival.

Campbell and Christian (2003) argue that the vitality of heritage languages and communities depend greatly on the intergenerational transmission of heritage languages. Heritage languages do not, however, always get transferred from one generation to the next, making it difficult for them to survive. Veltman (1983) described a three-generation shift to English that occurs. The first generation acquires some English while strongly maintaining the

native language, while the second generation becomes bilingual with stronger proficiency in English, as English is the dominant language. The third generation is more likely to speak only English with little to no proficiency in the heritage language. While this shift is not necessarily inevitable in all communities, it is nevertheless important to examine why some heritage languages do not get transferred across generations.

In a meeting of the Second National Conference on Heritage Languages (2002), some key factors emerged that are likely play a role in the intergenerational transfer of heritage languages. One factor is language ideologies. Language ideologies refer to the beliefs about a particular language or about languages in general (King, 2000). These language ideologies are related to the cultural ideologies and history of a given language and are crucial to the success of heritage language programs. Unfortunately individual beliefs towards heritage languages do not often coincide with language behaviour. For example, Lyon and Ellis (1991) surveyed Welsh parents and found that 86% of them believed that Welsh was important enough to be taught to their children, but very few use the language regularly with their children. Such inconsistencies may explain why heritage languages do not often get transferred from one generation to the next and speaks to the language ideologies of the parents and grandparents.

In addition to language ideologies, external pressures on families have been identified in influencing intergenerational transfer of the heritage language. In the past, the pressures to stop using the heritage language were internal ones. The belief was that the English language was more useful to academic and economic success and, especially among the young, there was a desire not to be different from peers. Recently, however, these internal pressures have been replaced by external ones in the form of governmental and educational policies. According to Campbell and Christian (2003), the heritage languages of immigrant groups were more often

given up than taken away. There was no policy in place stating that immigrants were forbidden to use their heritage language in the home. Giving up the heritage language was a matter of personal preference for many immigrants. The external pressures had an influence on the choices that were made for children. For example, if a child could not speak English properly, he or she was often put in special classes as though he/she had a learning disability. Fearing that this would happen to their child, parents were often reluctant to use the heritage language and, instead, opted to use English in the home in the hopes of improving their child's proficiency in English.

Given that the expectation for the younger generation is mostly to develop proficiency in English, the dominant language, in order to reach optimal academic success, it is not surprising that a shift to English occurs. The influence of this mainstream thinking is that interest in and the desire and motivation to learn the heritage language may become suppressed among the younger generation. It is important to determine and understand how heritage language loss influences the desire of the younger generation to learn the language and their identification to the culture. If this younger generation does not identify with the culture and has no interest in learning the language, the language will have no chance of survival.

The Language Shift

Some feel that the loss of heritage languages is a positive move toward societal unification. In fact, bilingualism has been seen by some as a threat to the health of nations. These viewpoints have had, however, no empirical support. Fishman (1990) found that multilingualism could not be blamed for divisiveness or political strife in countries. At the individual level, bilingualism does not have negative effects on the ability to function in society (Krashen, 1998). Bilingualism was also once thought to create academic difficulties for minority

children. Recent research has, however, found that bilingualism positively affects intellectual and linguistic progress. Studies have shown that as long as English development (or the dominant language) occurs, continuing to maintain the heritage language actually promotes scholastic achievement (Krashen, 1998). For example, Fernandez and Nielsen (1986) found that, among Hispanic high school seniors, bilinguals (those who could speak both Spanish and English) performed better than monolingual Hispanics on English reading. Heritage language education has also been found to have a positive effect on both personal and collective self-esteem. However, given that there is a strong correlation between self-esteem and academic success and that the causal direction has been debated, research on academic success and self-esteem tends to overlap, so it is unclear if academic success precedes self-esteem or if self-esteem leads to academic success. Causal direction aside, bilingualism has been found to benefit students both academically and personally. Studies have also shown that heritage language programs have a positive impact on ethnic group attitudes. Lambert, Giles and Picard (1975), for example, examined the ethnic group attitudes of two groups of French American students and found that the group who had the bilingual (English/French) education rated French over English, whereas those in the group with no formal French instruction rated English higher. These results suggest that exposing children to their own heritage language helps them develop more positive attitudes toward their own ethnic group and reduces their desire to join another group.

Researchers have blamed the unmistakable dominance of the English language for the challenge various cultural groups must endure to maintain their heritage languages (Fishman, 1991; Veltman, 1988). The conditions that contribute to what researchers have labelled the language shift have been studied far more extensively than those conditions that support the

retention and development of heritage languages. This language shift occurs when a minority group comes in contact with a more dominant cultural group (Fishman, 1991; Tse, 2001). The shift can occur at both the societal level (Fishman, 1991) and the individual level (Wong Fillmore, 1991). Research in the area of language shift has concentrated primarily on the plight of indigenous groups in the United States (McAlpine & Herodier, 1994; McCarty & Zependa, 1995). It was only recently that such groups have taken steps to slow down and possibly reverse the language shift through the development of educational programs, but the results are still unknown (Tse, 2001).

There have been a number of proposed causes of language shift. Shannon (1995), for example, points to the differential power that exists among ethnic and linguistic groups as a possible reason for a language shift to occur. Cultural groups lacking political, economic and social power are often not given the social services necessary to maintain and develop their languages. In the United States, Portes and Hao (1998) found that pressure to speak only English by native-born Americans is likely the primary reason for the shift to English. Further, when one group appears to have higher status than another, members of the lower status group have a tendency to want to disassociate themselves with the lower status group and become part of the higher status group (Tse, 2001). Tse (2001) has argued that the differential power among cultural groups is reflected in many of our language policies, particularly where education is concerned. However, Phinney (1989) and Tse (2001) have found that, later in life, minority group members develop more positive views of their culture. Thus, differential power among cultures may be a key factor in language shift among the younger generation, but not necessarily the older generation of minority group members. The research in language shift, therefore, has

focused on how to reduce the loss of the heritage language, particularly among the younger generation.

The second factor that researchers have identified in the process of language shift concerns parental heritage language use and attitudes (Tse, 2001). By speaking the heritage language at home, parents send a clear message to their children and to society regarding their attitudes toward heritage language maintenance. Research has shown that parents are the primary input of the heritage language for children. Those children who managed to maintain their heritage language grew up with the language being spoken in the home (Bayley, Schechter, & Torres-Alaya, 1996; Kondo, 1998; Portes & Hao, 1998). In fact, parents who favour heritage language maintenance go as far as banning English from even being spoken in the home (Tse, 2001). However, the parents' attitudes are not always in the direction of heritage language maintenance and development. There is so much pressure on children to speak the dominant language that it is difficult, and sometimes impossible, for parents to expect children to restrict their use of English to outside of the home.

Researchers interested in the barriers to heritage language development in children argue that, while parents and educational policy are key issues in maintaining heritage languages, parents often feel pressure to teach their children English in order to function in society and educational policies do not often reflect the multicultural backgrounds of its students. Thus, in order to bring attention to this problem, the research has highlighted the consequences of heritage language loss. One outcome that has received attention is the miscommunication between generations when the younger one does not maintain the heritage language.

Intergenerational Conflict

Should we be concerned that heritage languages are not being passed down through the generations? Research shows that immigrant parents generally favour heritage language development in children (Shin and Krashen, 1998). While parents are aware that children must have strong English skills to be academically successful, many also want them to retain full use of the heritage language as the language of social interaction in the ethnic home and community. However, a positive attitude toward the HL does not always translate to actual support for the heritage language. MacKinnon (1977) found that since the 1930s, there has been virtually no transmission of the language to the younger generation. For instance, Gaelic is still being used in Cape Breton, but studies by Kelly (1980), Mertz (1982) and Edwards, (1988) show that it is used primarily by people over sixty-five. The intergenerational transmission of heritage languages is crucial to the survival of heritage language communities, but as was seen earlier, language ideologies and external pressures on parents can influence the prospects of intergenerational transmission of heritage languages.

The older generation of Gaelic speakers holds the wealth of the traditional heritage (MacDonald, 2000). They are the source of the songs, stories, and most importantly, the language. Language is the most notable form of cultural transmission and, while cultural tradition is recorded and documented, its true authenticity lies in the spoken word. The older native speakers of Gaelic are dying, and are taking the language with them. Heritage language development can facilitate communication with elders and the heritage language community, allowing the heritage language speaker to profit from their wisdom and knowledge (Wong-Fillmore, 1991; Cho, Cho & Tse, 1997; Cho & Krashen, 1998). It may also help promote a healthy sense of multiculturalism, and an acceptance not only of both the majority and heritage culture, but a deeper understanding of the human condition.

Wong-Fillmore (1991) reported cases where heritage language loss has played a role in intergenerational conflict. For example, in one instance, a linguistic error was made by grandchildren to their grandfather who was visiting from Korea. The error was misinterpreted as disrespect. The incident occurred because the children had stopped speaking Korean at home and had, as a result, not developed adequate proficiency to communicate with their grandfather. In a qualitative study of Korean American university students, Cho and Krashen (1998) found that the loss of ability to use the heritage language interfered with the ability to communicate with parents. For example, one student said that she could not hold a normal conversation with her parents and finds herself having to repeat things over and over until they understand her. Another student said that her inability to communicate efficiently in Korean with her mother results in tension and fighting.

Loss of the heritage language also interferes with interactions with the heritage language community. The participants in Cho and Krashen's (1998) study indicated that their lack of proficiency in the heritage language affected their interactions with others outside of their immediate family. Specifically, the students reported that their inability to communicate in the heritage language left them feeling isolated and excluded from members of their own ethnic group. Given that the participants in Cho and Krashen's (1998) study were Korean students, the majority of the community experiences described situations going to Korean towns or Korean restaurants where they had difficulty speaking with merchants who believed they could speak Korean. Finally, those students who have very little proficiency in the heritage language confront special problems when visiting the country where the language is spoken, particularly when they look like members of the ethnic group.

While the public often has the impression that immigrants maintain and develop their heritage languages at the same time they are learning English, Krashen (1996) argues otherwise, stating that heritage languages are being lost and replaced rapidly by English. For the participants in the present study, it is unlikely that loss of the Gaelic language would lead to such family conflict given that there are no monolingual Gaelic speakers left in eastern Nova Scotia. It does, however, point to the importance of the social context in the decision to learn and use the heritage language. When influential others feel that learning Gaelic is important, students may place more value on the language. This is particularly true in contexts where there is not a great deal of opportunity for communication in the heritage language. Having significant others feel that learning the language is important may act as a source of support for those learning Gaelic.

Cultural Values

Taken together, language shift and the resulting intergenerational conflict bring the current review to the final issue discussed here; the issue of cultural values. When the possibility of heritage language loss becomes imminent, concern turns towards the consequences for feelings of ethnic group membership. Heritage language researchers have indicated that the heritage language is so strongly associated with the individual's cultural background that heritage language loss could have negative implications for the sense of identity to the ethnic group. Failure to acquire the heritage language has been equated with the failure to develop cultural values, which are essential to the maintenance of the heritage language. In other words, heritage language acquisition, or the act of making the language part of one's identity, has positive implications for the value that is placed on that language. Cho (2000) interviewed Korean Americans on their heritage language attitudes and experiences and found a link between acquisition of the heritage language and the value placed on the language. For example, one

participant said that he wanted to acquire the Korean language because it was simply a part of being Korean. He further stated that it was important to acquire the Korean language in order to benefit the Korean community. Another student indicated that acquiring Korean was important for the future of the culture. It has further been suggested that, as the heritage language takes on greater value, identification to the ethnic group increases and the individual will want to acquire the heritage language even more (Tse, 1998). Thus, heritage language communities depend on the acquisition of the heritage language among the younger generation in order to assure the survival of the language and culture.

Bridging the Gap

Heritage language research has aimed at providing definitions of heritage language learners, proposing both causes and consequences of heritage language loss, and emphasizing the importance of the home environment to the maintenance of heritage languages. This research has, however, been primarily concerned with the effects of heritage language loss on the academic performance of students trying to adapt to a predominantly English-speaking environment. Although this cognitive aspect is important, there are gaps in the heritage language research that warrant some attention. First, although heritage language research has recognized the language shift phenomenon, arguing that the shift occurs due to the dominance of the English language is not sufficient. We still do not know the individual processes that allow the shift away from the heritage language to transpire in the first place. Second, although intergenerational conflict is an outcome of heritage language loss, it is not clear what role parents and grandparents play in heritage language development. It may be that the value placed on the heritage language by parents in particular is instrumental in the younger generation's decision to maintain the heritage language. Heritage language research has not, however, examined whether

parents' desire for their children to learn the heritage language has any influence on their children's eventual choice to learn the heritage language. Finally, research has focused on the importance of heritage language acquisition to the development of cultural values and the maintenance of heritage languages. Acquiring the heritage language does not necessarily translate to actual heritage language use. Using the heritage language may actually play a larger role in the continuance of heritage languages, but this prospect has received little attention. In sum, heritage language research needs to address these issues in order to develop a more comprehensive understanding of the complex processes underlying its learning and development and maintenance.

The research area pertaining to heritage language development is relatively new. What would be a first step in complementing, yet furthering the current findings? In his review of the research, Lynch (2003) argues that theory building in heritage language research should begin by turning to what has been accomplished in second language research over the past four decades. That research had, initially, been primarily focused on Canada's two official languages, English and French, although extensions to other languages soon followed worldwide (Noels, 2003; Ono, 1999; Pfaff, 1992). The basic thesis promoted by that research and theoretical underpinnings is that, in contrast to the acquisition of other subject matters, the learning of a second language is related to social psychological factors linking it to the social context in which it takes place.

A Social Psychological Phenomenon

Lambert (1963) argued that success in learning another language is directly proportional to attitudes toward the target language community. It has further been maintained that those who are integratively motivated (learning for the sake of being closer to the other community) are expected to be more successful language learners than those who are only learning the language

to get a good job (instrumentally motivated). Even more than language aptitude, attitudes and motivation have been positively linked to language study perseverance. The explanation here is that the nature of attitudes and motivation likely influences students' interest in learning a second language.

As a continuation of Lambert's seminal contribution, Gardner's (1985; Gardner & Lambert, 1972) socio-educational model is probably the most recognized model of attitudes and motivation pertaining to L2 acquisition. It defines motivation as a composite of motivational intensity, desire to learn the language and an attitude toward the act of learning the language. According to Gardner, an individual who is truly motivated will possess all three components. In a subsequent elaboration, Gardner (1996) described two perspectives concerning motivation. First, motivation may be an external attribute that is derived from some sort of reward. Second, motivation can be an internal attribute, or a characteristic of the individual. He argues that motivation could be described as an internal attribute that can be enhanced by something external (Gardner, 1996). It can be said that motivation is what drives individuals to begin learning a second language in the first place and it is perhaps what sustains them when the learning process becomes difficult.

Gardner (1985) also introduced the role of parental encouragement in second language acquisition, specifically when it comes to attitude formation. Although he recognized the importance of other factors like mass media, peer groups, and community values, he argued that, at least initially, parents play a large part in their children's motivation to learn a second language, through two specific processes, which he referred to as active and passive. Parents play an active role when they express words of encouragement for learning the second language or they monitor their child's progress in learning the second language by helping with

homework. Parents play a passive role by expressing and modeling their attitudes toward the second language and the second language community. These can be either positive or negative beliefs that could ultimately impact the child's second language learning success.

In general, research has found that parental attitudes are not directly related to the child's performance in class, but more so to their desire to continue studying the second language (see Gardner, 1985 for review). Further, studies have shown that it is perhaps the passive role that is most effective because parents' general attitudes toward a language and culture are more easily retained by children (Gardner, 1985). Thus, a supportive environment appears to be the best course toward successful second language acquisition. Gardner's model, although comprehensive in terms of individual differences in second language learning in the classroom context, did not, however, take into account social contextual characteristics that dictate the second language learning process. In other words, in addition to individual characteristics that appear in the language classroom, the influence of the more general social context in which learning takes place must be considered.

The Social Context Model

As a follow-up to Gardner's (1985) emphasis on individual variables, Clément's social context model (1980; Clément & Kruidenier, 1985) is a hybrid of both individual characteristics and contextual factors. It conceptualizes cultural and social influences on the individual learner's second language acquisition. In his model, Clément (1980) presents interrelations among interethnic contact, L2 confidence, L2 competence and L2 identity.

At the onset of Clément's (1980) social context model, two opposing variables, integrativeness and fear of assimilation, are introduced as the primary motivations towards the desire to learn the second language and eventual second language competence. Integrativeness

refers to the affective orientation toward the language community, whereas fear of assimilation corresponds to the fear that learning the second language could result in loss of the first language identity. In unicultural settings, this primary motivational process is the most immediate determinant of motivation. However, when contact with the second language group is possible, the resulting tendency determines a secondary motivational process concerning second language confidence. Specifically, the model proposes that the tendency resulting from integrativeness and fear of assimilation will lead to different levels of contact with the members of the target language group. Frequent and pleasant contact (i.e. day-to-day communication/interaction) with the L2 group will then lead to variations in L2 confidence. L2 confidence, comprised of perceptions of communicative competence and low levels of L2 anxiety, is, in turn, implicated in increased communication competence in the L2, identification with the second language group and psychological adaptation (Noels & Clément, 1996; Noels, Pon & Clément, 1996).

Clément and Kruidenier (1985) tested the model using causal modeling techniques and found support for its generality. Additional paths were noted, however, leaving the possibility for refinement of the model in the future. For instance, when Noels and Clément (1996) applied the social context model to high and low vitality Anglophones and Francophones in the same milieu they found that the effects of contact actually by-passed second language confidence in predicting second language group identification among the low vitality groups. Such findings suggest that language confidence may not be the only mediator between contact and identity among low vitality groups.

Ethnolinguistic vitality. As a further characterization of context, Clément (1980) hypothesized that the initial step of the model, the balance between integrativeness and fear of

assimilation, is influenced by the relative importance of L1 and L2 in the community. He proposes that this aspect is best described by ethnolinguistic vitality, a concept introduced by Giles, Bourhis and Taylor (1977) corresponding to the likelihood that a group will behave distinctively and actively represent a collective entity in intergroup situations. In the original formulation (Giles et al., 1977), ethnolinguistic vitality was proposed to have three components: demographic representation (proportion of population), institutional support (schools, media) and status (socio-economic status of the speakers).

Cultural groups demonstrating low ethnolinguistic vitality through smaller populations, less institutional support or lower socio-economic status are proposed to exhibit behaviour that comes to resemble that of groups with high ethnolinguistic status. While these represent more objective measures, subjective ethnolinguistic vitality has been used to refer to an individual's perceptions of the presence of the target language in their environment. In Clément's (1980) model, subjective ethnolinguistic vitality is placed as an initiator of the primary motivational processes. This indicates that vitality perceptions have the potential to influence the desire to seek contact with the target language. Specifically, it is argued that lower vitality groups are likely to be more attracted to the higher vitality group, but that tendency and the impact on aspects of contact is likely moderated by fear of assimilation due to the potential loss of the L1 identity.

While previous studies (Clément, 1996; Harwood, Giles, & Bourhis, 1994) have found a close correspondence between objective and subjective vitality, none has investigated explicitly the outcomes of subjective vitality. It is assumed that the subjective feelings will reflect the actual societal state of affairs. It is likely that ethnolinguistic vitality beliefs are derived from attitudinal aspects and result in first hand contact with a language. In the case of Gaelic,

subjective vitality is, therefore, probably a precursor to frequency and quality of contact with speakers of the language. Thus, subjective vitality could be a direct determinant of contact and an indirect determinant of confidence and ethnic identification.

The social context model, thus, introduces the importance of contact with the target language group to L2 confidence and eventual identification with the target language group. In this way, it highlights the lack of attention given to both the learner (language confidence) and the learning situation (contact) in heritage language research.

The Willingness to Communicate Model

Complimentary to Clément's (1980) social context model and Gardner's (1985) socio-educational model that focus on L2 acquisition, the willingness to communicate (WTC) model introduced by MacIntyre, Clément, Dörnyei and Noels (1998) accounts for L2 use. It is based on Skehan's (1989) premise that second language use is a reliable determinant of second language achievement.

WTC was first introduced into the literature by McCroskey and Baer (1985) with reference to native language use and refers to the probability of initiating conversation when given the choice to do so (McCroskey & Baer, 1985). MacIntyre et al. (1998) adapted WTC to the L2 situation in a model encompassing individual and contextual variables implicated in the choice to initiate L2 communication.

Communication anxiety and perceived communication competence have been found to be two of the strongest predictors of WTC (McCroskey & Richmond, 1991; Baker & MacIntyre, 2000; MacIntyre, Clément, Baker, & Conrod, 2001). Communication anxiety refers to the level of fear associated with real or anticipated communication (McCroskey, 1977). Perceived communication competence is the subjective belief that one can communicate effectively in a

particular context (McCroskey & Richmond, 1990). While actual competence may influence communication, it is the perception of competence that will ultimately determine willingness to communicate. In the WTC model, these two variables are combined into the construct of L2 confidence borrowed from Clément (1980).

Given that WTC is a measure of the cognitive choice to use a language, it may be said that it demonstrates a motivation for learning that language. The WTC model is, therefore, introduced in the present research to address motivational and personality aspects missing from heritage language research. It also serves to stress the importance of L2 use, supplementing to heritage language research that focused on acquisition.

To summarize, the research on L2 learning has taught us that there are three important aspects of second language learning to consider---differences across individuals in L2 usage, the role of the language learning context, and parental influence. Unfortunately, such considerations have not been evident in past heritage language research. The context, in particular, should be of interest to those who are concerned with maintaining heritage languages because it speaks directly to the presence of the language.

A Model of L2 Use

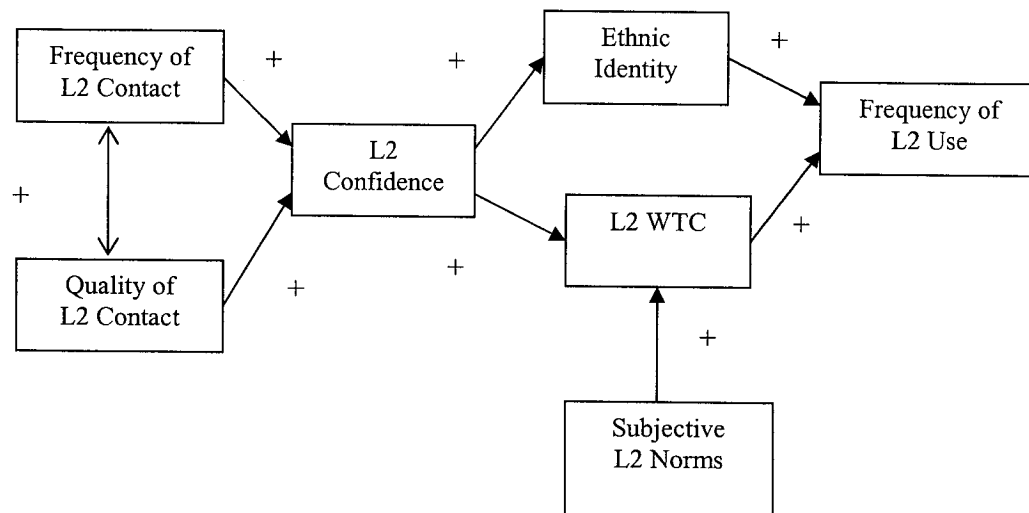
Taken separately, the WTC and social context models do not represent a cohesive understanding of how L2 research is applied to heritage language learning. Clément, Baker & MacIntyre (2003) combined the two models that encompass a number of individual and context variables to create one comprehensive model describing the second language learning process (Figure 1.1). The authors achieved this by using L2 confidence, a variable common to both models, as a juncture. The resulting model of L2 use served two main functions. The first was to address the lack of attention given to actual L2 usage in models of L2 acquisition. The WTC model (MacIntyre et al., 1998) included L2 use, but focused mainly on WTC and the social context model ignored L2 use entirely. As argued above, focusing on heritage language usage may allow insights into the learning process.

The second purpose of the model of L2 use was to introduce subjective L2 norms, a variable missing from both the WTC and social context models, but an important influence on L2 learning. Norms correspond to feeling that significant others want us to perform a particular behaviour. If we perceive that people who are important to us want us to learn and communicate in the L2, we are more likely to perform that particular behaviour. Gardner's (1985) socio-educational model had emphasized the importance of parental encouragement to the second language learning process. He argued that, especially passively, parents can influence the initial decision to learn the L2 and to continue learning the L2.

Similarly, the research emphasizing the importance of intergenerational transmission to the survival of heritage languages suggests that important others may play a significant role in the decision to learn and ultimately to succeed in learning Gaelic. Heritage language researchers had

Figure 1.1

Model of L2 Use (Clément, et al., 2003)



also alluded to the importance of the home environment and parental attitudes on heritage language maintenance. Given that formal heritage language instruction is most often introduced at the university level, heritage language learners tend to be adult-age. It is, therefore, unlikely that parents would be monitoring the heritage language learning progress or providing at-home heritage language activities. Introducing subjective norms to the heritage language learning situation would, instead, present a more general contextual influence and provide insight into how significant others influence the language learning process in a context where there are not many opportunities for communication in the heritage language.

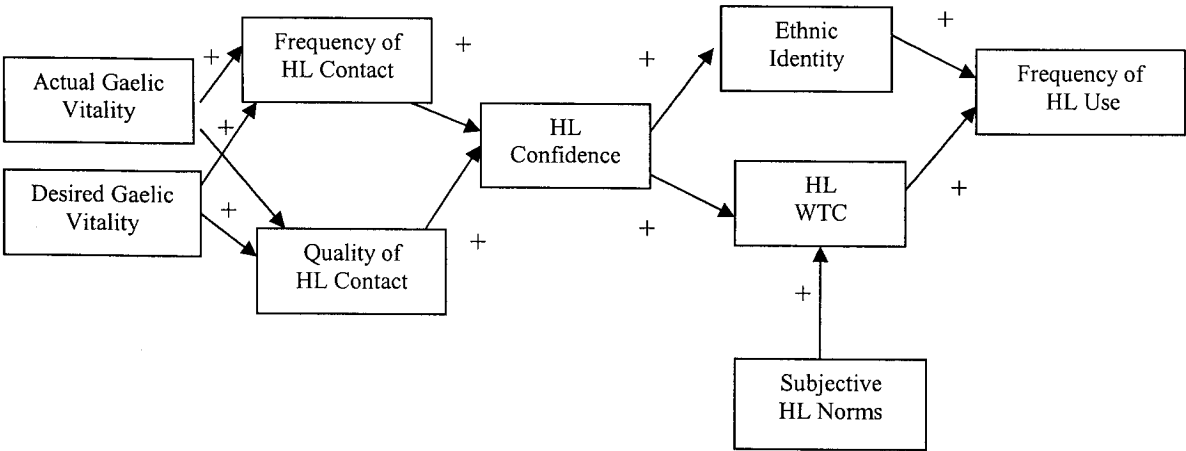
To summarize, the model of L2 use proposed that frequent and pleasant contact with members of the L2 group would entail greater L2 confidence. L2 confidence would promote a willingness to use the L2 and greater L2 group identification, which would ultimately determine the frequency of L2 use. Finally, the model introduced subjective norms, in addition to confidence, as a determinant of L2 WTC. The model of L2 use, therefore, addresses two of the three aspects missing in heritage language research—norms and usage.

A Model of Heritage Language Use

The issue of ethnolinguistic vitality is the one remaining aspect of the context pertaining to heritage language learning that has yet to be addressed. Subjective vitality may initially act as a precursor to actual contact with members of the target language group. Taking this argument one step further, Allard and Landry (1986, 1994) view vitality as a belief system whereby a person's general (factual) and goal (desires) beliefs determine language behaviour. The model of heritage language use proposed here (Figure 1.2) is a slight derivation of the model of L2 use, where contact is considered an outcome of vitality perceptions. If subjective ethnolinguistic

Figure 1.2

Proposed Model of Heritage Language Use



vitality is viewed as a belief system and beliefs influence behavioural intentions, then perceptions of vitality should lead to the seeking of opportunities for contact with the target language group (see Allard & Landry, 1986).

Specifically, the proposed model of heritage language learning introduces vitality perceptions as precursors to frequent and pleasant contact with the target language, which ultimately influence confidence in using the target language. Confidence, in turn, affects identification to the target language group and a willingness to use the language. Thus, it is proposed that WTC, a behavioural intention, is influenced by subjective vitality, but only through the development of language confidence. Finally, as identification to the target group and the willingness to communicate in the language increase, so, too, should the frequency of actual language use. In addition to language confidence, subjective social norms are proposed to be a precursor to WTC. In situations where the vitality of the target language is low, social norms may serve as an additional source of support to communicate in the target language.

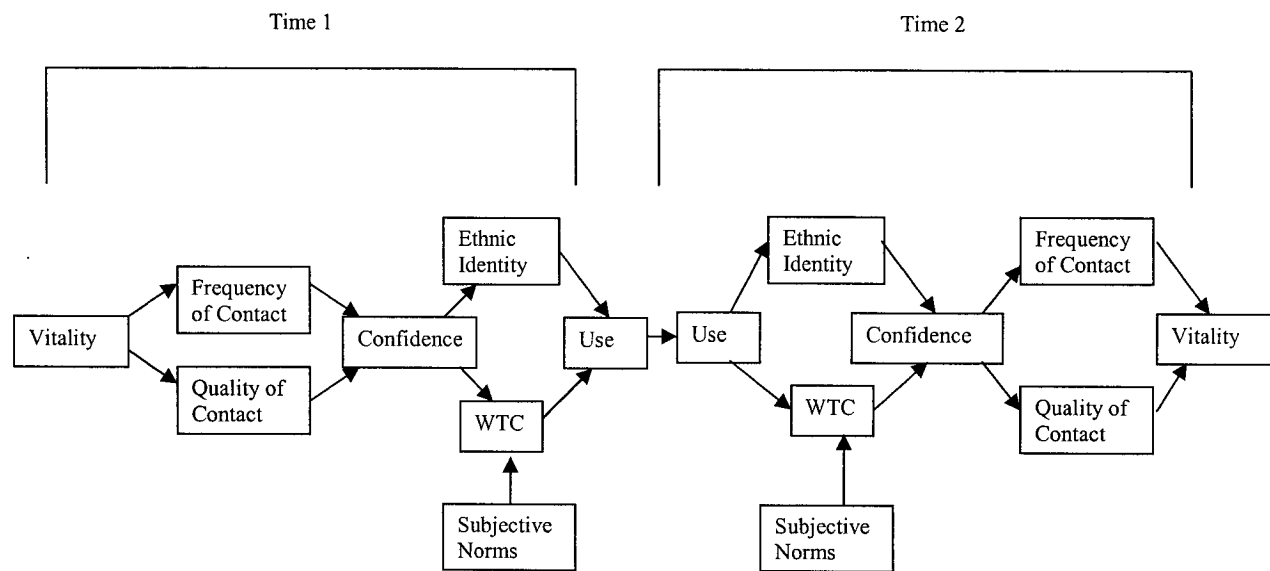
The Longitudinal Model

Clément's social context model, MacIntyre et al.'s (1998) WTC model and even the Model of L2 use (Clément et al., 2003) describe language learning processes at one point in time. The models do not go beyond initial language use to investigate the effects of language use over time. This would suggest that, once an individual begins to use the target language, the process ends. It is argued in the present study that this is not the case. Consequently, a longitudinal model of HL use (Figure 1.3) is presented whereby language use at time 1 has a direct influence on the mechanics relating to language learning at time 2.

In general, the proposed model of HL use (Figure 1.2) and other models of language learning as well present the context (i.e. vitality, contact and subjective norms) as a direct

Figure 1.3

A Proposed Longitudinal Model of HL use



influence on individual language learning processes (confidence, WTC, identity, use). What happens once an individual has developed confidence and WTC, identifies with the target language group and begins to use the target language? It is proposed here that these individual processes, in time, will influence how the learning context is perceived. Specifically, the initial language learning process is reversed, where contact and vitality are outcomes of language use, confidence, WTC and ethnic identity.

Some researchers have argued that ethnic identity is derived from internalized language (see Eastman & Reese, 1981 for review). Thus, initially, identification is important to language use, but, over time, language use may be a way to reflect ethnic identity to others. Language use may also influence further language behaviours. For instance, in second language studies comparing immersion and non-immersion students (e.g. Baker & MacIntyre, 2000), it was shown that immersion students, who use the second language more often, indicate higher WTC, language confidence and contact than non-immersion students. Thus, prolonged language use has been shown to influence both ethnic identity and language behaviour.

The longitudinal model of HL use proposes that language use at time 1 has a direct influence on language use at time 2. Greater language use at time 2 leads to greater identification to the target language and WTC. Both ethnic identity and WTC are proposed to lead directly to language confidence. Initially, it is argued that language confidence is necessary to the development of WTC and ethnic identity. However, once ethnic identity and WTC have developed, they will likely reduce the anxiety associated with language learning, thus increasing language confidence. As language confidence increases, so too should the desire to seek out contact with the target language group. Thus, the longitudinal model of HL use proposes that language confidence has a direct influence on the frequency and quality of contact with the target

language group. As vitality beliefs are derived from a subjective evaluation of the linguistic context, increased contact with the target language group will likely transform vitality beliefs over time. Specifically, frequent and pleasant contact influences perceptions of the actual vitality of the language as well as the desire for more target language resources. Finally, subjective norms are proposed to have a direct influence on WTC in time 2 as well. Although greater language use develops over time, the support of others is still necessary to determine language behaviour when the vitality of the target language is low.

The Present Study

Study Design

The present study is a comparative and longitudinal comparison of French and Gaelic learners and non-learners living in the same unilingual context. Specifically, the models of HL use (Time 1 and Longitudinal) are applied here in the context of learning a second and heritage language in a predominantly English-speaking milieu. The model is applied to both French and Gaelic learners in order to demonstrate that the language learning process likely varies as a function of the target language. In addition to a comparison to French learners, Gaelic learners are also compared to non-learners of Gaelic both with and without a Gaelic heritage. This allows for the demonstration of the differential effects of having a heritage background and learning the heritage language. In addition to the quantitative aspects, the present study applies a qualitative approach to exploring the language learning experience of Gaelic and French learners. Finally, given the tenuous state of Gaelic in Nova Scotia, Gaelic teachers are interviewed about their views on the past, present and future of Gaelic in the province.

Baseline comparisons

Testing the model of HL use. The time 1 model of HL use (Figure 1.2) is applied to Gaelic and French learners and non-learners of Gaelic with and without a Gaelic heritage. It is proposed that the relationships among the variables implicated in the language learning process will be the same for each group, but that the strength of these relationships will vary across groups. Specifically, due to the higher vitality of the French language, the relationships among actual target language vitality, contact, language confidence, identity, WTC and use will be stronger among French learners. For Gaelic learners, desired vitality will have a stronger influence on contact and subjective norms will serve as a more salient source of support in the decision to use the target language.

Means analysis. Means analyses are performed comparing Gaelic and French learners and non-learners of Gaelic with and without a Gaelic heritage. The purpose of the analyses is to determine whether there are differences among the groups on their language confidence, frequency and quality of contact, vitality perceptions, WTC, identification, subjective norms and language use of each group. It is hypothesized that there will be differences among Gaelic learners, French learners and the two groups of non-learners of Gaelic. Specifically, (1) given that the students are Anglophone, the identification to the Anglophone group will be higher than the identification to the target language groups; (2) given the proposed relationship between identity and language use, the students who are not learning Gaelic will indicate a significantly higher Anglophone identity and English vitality perceptions than Gaelic learners (3) the Gaelic learners, because they have chosen to learn Gaelic, will have a significantly higher Gaelic identity and perception of Gaelic vitality than the students with a Gaelic heritage who are not learning Gaelic; (4) given the higher status afforded to the French language, French learners will demonstrate significantly higher language confidence, frequency and quality of contact, WTC,

target language identification, subjective norms and language use than the other three groups.

Also, because they are learning French, they will have significantly higher perceptions of French vitality; (5) non-learners of Gaelic with a Gaelic heritage will indicate a higher Gaelic identity than those without a Gaelic heritage.

Longitudinal Aspect

Testing the longitudinal model of HL use. The longitudinal model of HL use (Figure 1.3) is applied to French and Gaelic learners to investigate the effects of target language on the learning process. It is proposed that the processes at time 1 will have a direct influence on those in time 2. It is further hypothesized that, although the relationships among the variables in the model will be the same for both Gaelic and French learners, the strength of these relationships will differ. Again, the relationship between desired vitality and contact and between subjective norms and WTC will be higher among Gaelic learners.

Means analyses of the effects of time. In addition to baseline comparisons at time 1, the French and Gaelic learners are compared over time to investigate if there are any differences in their language confidence, frequency and quality of contact, vitality perceptions, WTC, identification, subjective norms and language use. It is hypothesized that French and Gaelic learners will show a significant increase in language confidence, target language vitality perceptions, frequency and quality of contact, WTC, target language identity, subjective norms and language use from time 1 to time 2. Due to the higher vitality of French, French learners will show significantly higher language confidence, frequency and quality of contact, vitality perceptions, WTC, target language identification, subjective norms and language use than Gaelic learners in both time 1 and time 2. As both groups are Anglophone, there will be no significant differences in their Anglophone identity or perceptions of English vitality in time 1 or time 2.

Further, English vitality perceptions will be significantly higher than French vitality perceptions, which will be higher than Gaelic vitality perceptions.

Qualitative Aspects

The language learning experience. In addition to the quantitative differences proposed between Gaelic and French learners, it is hypothesized that they will differ qualitatively as well. In a series of open-ended questions, Gaelic and French learners are asked to describe their language learning strategies, their thoughts about the survival of the language in Nova Scotia, their reasons for studying the language and the role that their parents played in the decision to learn the language. Given that this approach is exploratory in nature and that the students' learning experiences will vary across individuals, no specific hypotheses are offered. However, it is expected that Gaelic and French learners will show variations in their reasons for learning the target language, the types of situations in which they get to speak the target language, the role of their parents, their perceptions of the prospects for the target language survival, and their strategies for learning the target language.

The Gaelic teacher perspective. In order to gain the perspective of native Gaelic speakers who are teaching Gaelic on the prospects for Gaelic survival in Nova Scotia, Gaelic teachers at both UCCB and St. FX will be interviewed. They will be asked questions concerning the previous state of Gaelic, the state of Gaelic today, and the prospects for Gaelic in the future. The teachers' responses will be compared to those of the students on similar questions. Again, the approach used here is exploratory, but it is expected that there will be some variations between the Gaelic learners and the teachers in terms of their perceptions of Gaelic survival in Nova Scotia.

Chapter Summary

The present study has four goals. First, to address the limitations of extant heritage language research, this study will apply aspects of L2 research and will introduce ethnolinguistic vitality as an important influence in the language learning process. Ethnolinguistic vitality has been seen as an important influence on language behaviour. Here, it is presented initially as a direct precursor to the frequency and quality of contact and eventually a final outcome of language use.

Second, the present study examines the unique underlying processes of heritage language learning by comparing Gaelic learners to French learners. Such a comparison will investigate variations in learning a second language, which is afforded greater status, and learning a heritage language. Gaelic learners will also be compared to non-learners of Gaelic both with and without a Gaelic heritage. This comparison will illustrate the language/identity relationship. Specifically, in the absence of Gaelic language skills, what role does identification to the Gaelic culture play?

The third goal of the present study is to take a qualitative approach to examining the language learning experiences of the Gaelic and French learners. Nova Scotia is a predominantly English-speaking province, so it is assumed that Gaelic and French learners have specific language learning goals and perceptions of their target languages. In affording the students the opportunity to express these goals and perceptions themselves, a broader view of the language learning experience will be obtained.

Fourth, and finally, the Gaelic teacher perspective will be obtained in an interview analysis examining the past, present and future of Gaelic in Nova Scotia. This will not only provide insight into the experiences and challenges of teaching a heritage language, but will also

allow for comparisons to those who are learning Gaelic. Specifically, it will determine whether Gaelic teachers and students have different points of view concerning the state of Gaelic in Nova Scotia.

CHAPTER 2

METHOD

Given the importance of the language learning context afforded by the present research, it is necessary to first discuss the linguistic make-up of the location in which the present research takes place. Nova Scotia consists mainly of English speakers (93.2%, Statistics Canada, 2001). While French is considered a second language in Canada, only 3.8% of the population in Nova Scotia has French as a mother tongue. The state of Gaelic is even worse with 0% of the population with Gaelic as a mother tongue. In terms of ethnic origin, 29% of the population of Nova Scotia is Scottish, 28% are English, and 17% are French. So, while the primary origin is Scottish, the majority language is English. The present research takes place in two different locations in Nova Scotia. The first is Antigonish. French is spoken by 3.9% of the population of Antigonish, Gaelic is spoken by .05% and English is spoken by 92.7%. The second location is Cape Breton. There are slightly more French speakers at 4.6%. Again the majority speaks English (91.7%) and very few speak Gaelic (.18%).

Participants

A total of 426 first year students studying at Saint Francis Xavier University (St. FX) and the University College of Cape Breton (UCCB) participated in time 1 of the present study. The students came from one of four groups³: (1) students who reported having a Gaelic heritage and who were learning Gaelic at the time of the study; (2) students who reported having a Gaelic heritage, but who were not learning Gaelic at the time of the study; (3) students who reported not having a Gaelic heritage and were not learning Gaelic at the time of the study; (4) French

³ There was no overlap between groups. At the time of the study, Gaelic learners were only learning Gaelic; French learners were only learning French; the non-learners were learning neither French nor Gaelic.

language learners. The first group, the Gaelic learners, was comprised of 75 students enrolled in introductory Gaelic language classes. The second group, the students with a Gaelic heritage who were not learning Gaelic consisted of 111 students enrolled in first year psychology courses. The third group, the students who did not have a Gaelic heritage and who were not learning Gaelic, consisted of 98 students enrolled in first year psychology courses. The fourth and final group, the French learners, consisted of 142 students enrolled in introductory French language classes.

Of the 217 Gaelic and French learners who participated in time 1 of the study, 50 Gaelic learners and 75 French learners participated in time 2 of the study. The decline in the number of participants in the second part of the study was due to a large number of the students opting out of the courses after the second class when the first testing session was held. While unfortunate, this is not unusual as Gaelic and French classes may tend to represent electives and not necessarily requirements in many programs.

Among the 75 (23 male, 51 female, 1 no indication) students learning Gaelic in time 1, 89.3% indicated English as their mother tongue. Although the students were recruited from first year Gaelic classes, 97.3% of them indicated that they have had some prior informal instruction in Gaelic. Only a small portion of these students indicated that their mother (12%) or father (13.3%) spoke Gaelic. More than half (57.3%) of these students, however, indicated that someone else in their family (uncle, aunt, cousin, grandparent) spoke Gaelic. A large portion (73.3%) of the students indicated they were born in Nova Scotia and had lived there all their lives. They were enrolled in a number of different programs, with Bachelor of Arts (37.3%), Celtic Studies (12%) and Bachelor of Science (10.7%) accounting for the majority of students. Finally, the mean age of these students was 20.6 years ($SD = 3.12$). The general make-up of the

students in time 2 of this study is comparable to that of time 1. The average age of the 50 participants (13 males, 31 females, 6 no indication) was the same as time 1 (20.6 years). A large portion of them (88%) indicated English as their mother tongue. The majority of them (84%) said that they would be taking Gaelic courses in the future.

Of the 111 (37 male, 65 female, 9 no indication) students who had a Gaelic heritage and who were not learning Gaelic, 87.4% indicated English as their mother tongue. A small portion (1.8%) of these students indicated having had some form of informal instruction in Gaelic in the past. None of them, however, were learning Gaelic at the time of the study. Also, none of the students indicated that their mother spoke Gaelic, but 1.8% said that their father spoke Gaelic. Less than half (35.1%) of these students indicated that someone else in their family (uncle, aunt, cousin, grandparent) spoke Gaelic. A large portion (82%) of the students indicated they were born in Nova Scotia and had lived there all their lives. They, too, were enrolled in a number of different programs, with Bachelor of Arts (35%), Bachelor of Arts Community Studies (18.9%) and Bachelor of Science (12.6%) accounting for the majority of students. Finally, the mean age of these students was 18.78 years ($SD = 3.49$).

Among the 98 (26 male, 72 female) students who did not have a Gaelic heritage and were not learning Gaelic, 94.9% indicated that English was their mother tongue. Only 2% indicated that they had some prior instruction in Gaelic. None of the students indicated that their mother or father spoke Gaelic. A small portion (4.1%) did indicate that someone else in their family spoke Gaelic. Many of the students (77.6%) indicated that they were born in Nova Scotia and had lived there all their lives. More than half of the students (52%) were enrolled in the Bachelor of Arts program, followed by the Bachelor of Arts Community Studies (11.2%) and Bachelor of Science (10.2%). The mean age of these students was 18.68 years ($SD=1.69$).

Finally, among the 142 (37 male, 94 female, 10 no indication) French language students in time 1, 85.9% indicated English as their mother tongue. Although the students were recruited from first year French classes, 93% of them indicated that they have had some prior informal instruction in French. A small portion of the students indicated that their mother (18.3%) or father (11.3%) spoke French. A little less than half (48.6%) of these students, however, indicated that someone else in their family (uncle, aunt, cousin, grandparent) spoke French. A little more than half of the students (59.2%) indicated they were born in Nova Scotia and had lived there all their lives. They were enrolled in a number of different programs, with Bachelor of Arts (29.6%), Bachelor of Business Administration (14.1%) and Bachelor of Science (9.2%) accounting for the majority of students. Finally, the mean age of these students was 20.3 years ($SD = 6.37$). The average age of the 75 students (19 males, 51 females, 5 no indication) who participated in time 2 was 20.1 years, which is comparable to time 1. A large portion of them (88%) indicated English as their mother tongue. The majority of the students (74.7%) said that they would be taking French courses in the future.

Materials

The data for the present study were collected using a 10-part questionnaire (Appendices A-D), which was presented in English to all three groups of students. The language in question was modified to reflect the target group. For instance, Gaelic learners and non-learners were presented with items that pertained to the learning of the Gaelic language. French learners, on the other hand, were presented with items concerning the learning of French. Following a consent form, students responded to items pertaining to the scales presented below. The model of internal consistency, or alpha, for time 1 is provided in parentheses. “Gaelic Learners” refers

to those students learning Gaelic and “Non-learners” refers to those who are not learning Gaelic.

Gaelic/French language confidence. This 9-item scale adapted from Gardner (1985) measured how relaxed or uneasy the student feels when communicating in Gaelic/French (Gaelic Learners $\alpha = .95$, Non-learners with Gaelic heritage $\alpha = .60$; Non-learners without Gaelic heritage $\alpha = .53$; French learners $\alpha = .91$). The students indicated their comfort level speaking Gaelic/French on a 5-point Likert scale (1=do not agree at all, 5=strongly agree). Two of the items were negatively-worded and had to be recoded prior to computing the total score. The possible range of scores on this measure was 9-45. A high score indicated high Gaelic/French language confidence.

Subjective Ethnolinguistic Vitality. This scale adapted from Allard and Landry (1986) assessed students’ perceptions of how many resources are available in English, French and Gaelic in their environment. This was the only measure in which the three groups of learners were asked about all three languages. Although they are not learning all three languages, they would be capable of commenting on the presence of the languages in their environment. Two sub-scales make up this measure⁴. The first is Actual Ethnolinguistic vitality, referring to the resources available in a particular language now (Gaelic Learners English $\alpha = .48$, French $\alpha = .84$, Gaelic $\alpha = .60$; Non-learners with Gaelic heritage English $\alpha = .65$, French $\alpha = .84$, Gaelic $\alpha = .80$; Non-learners without Gaelic heritage English $\alpha = .66$, French $\alpha = .78$, Gaelic $\alpha = .72$; French learners English $\alpha = .91$, French $\alpha = .92$, Gaelic $\alpha = .90$). There are 8 items for each of the three languages (English, French or Gaelic), which are measured on a 5-point Likert scale

⁴ Allard & Landry (1986) made the distinction between the two underlying subscales of the vitality scale. Confirmatory factor analyses were conducted among the four groups of students in the present study and the results all confirmed the presence of the two distinct subscales in this measure.

(1= None, 5= extremely numerous). The possible range of scores for this subscale is 8-40 for each of the languages. A high score indicates perceptions that there are many resources available in the particular language. The second sub-scale is Desired Ethnolinguistic vitality and refers to the students' goals or wishes with respect to the resources available in English, French and Gaelic in their environment (Gaelic Learners English $\alpha = .93$, French $\alpha = .92$, Gaelic $\alpha = .91$; Non-learners with Gaelic heritage English $\alpha = .80$, French $\alpha = .90$, Gaelic $\alpha = .83$; Non-learners without Gaelic heritage English $\alpha = .80$, French $\alpha = .94$, Gaelic $\alpha = .87$; French learners English $\alpha = .92$, French $\alpha = .81$, Gaelic $\alpha = .95$). There are 8 items that are measured on a 5-point Likert scale (1=Never, 5=Always). The possible range of scores for this subscale is 8-40 for each of the languages. A high score indicates a strong desire to have resources available in the particular language.

Frequency and quality of contact with Gaels/Francophones and or Gaelic/French. Eight items (see Labrie & Clément, 1986; Clément, 1986) assessed on a 7-point Likert scale (1=not at all frequent/not at all pleasant, 7=extremely frequent/extremely pleasant) the frequency and quality of contact the participants experience with Gaels/Francophones or Gaelic/French, including intimate relations, family and school. Each frequency scale was followed by a scale assessing the quality of contact in each of the six situations (Gaelic Learners Frequency of contact $\alpha = .89$, Quality of contact $\alpha = .92$; Non-learners with Gaelic heritage Frequency of contact $\alpha = .73$, Quality of contact $\alpha = .96$; Non-learners without Gaelic heritage Frequency of contact $\alpha = .81$, Quality of contact $\alpha = .96$; French learners Frequency of contact $\alpha = .84$, Quality of contact $\alpha = .97$). The possible range of scores was 8-56. High scores indicated frequent and pleasant contact with the target language group.

Willingness to communicate in Gaelic/French. Twelve items from McCroskey and Baer (1985) assessed the amount of time, ranging from 1 (never) to 5 (always) that a student would choose to communicate in a variety of contexts (public, dyads, meeting, and groups) and with a variety of receivers (friends, acquaintances, and strangers). The possible range of scores for this measure was 12-60. A high score was indicative of a high willingness to communicate (Gaelic Learners, $\alpha = .96$; Non-learners with Gaelic heritage $\alpha = .96$; Non-learners without Gaelic heritage $\alpha = .95$; French learners $\alpha = .98$).

Situated ethnic identity. Identification was assessed on a 5-point scale, which follows 8 items pertaining to everyday situations (Clément & Noels, 1992). The scale assesses the extent of identification with both the L1 group (Anglophone) and heritage language (HL/L2) group (Gael/Francophone) in each of these situations. The first response scale is anchored at one end by not at all Anglophone and at the other end by very Anglophone. The anchors for the second scale are not at all Gaelic/Francophone to very Gaelic/Francophone. The possible range of scores for this measure was 8-40 for each of the subscales. A high score indicates high identification with the target group (Gaelic Learners L1 $\alpha = .92$, HL $\alpha = .87$; Non-learners with Gaelic heritage L1 $\alpha = .96$, HL $\alpha = .90$; Non-learners without Gaelic heritage L1 $\alpha = .97$, HL $\alpha = .83$; French learners L1 $\alpha = .99$, L2 $\alpha = .98$).

Subjective heritage/second language norms. The 12 WTC scale items (McCroskey & Baer, 1985) were presented and the participants were asked to indicate on 5-point scale the degree to which they feel that communicating in Gaelic/French is important to significant others in their lives. The anchors were “not probable” and “very probable”. The scores on this measure could range from 12-60. High scores indicated that the students perceived normative pressure to

use Gaelic/French (Gaelic Learners $\alpha = .96$, Non-learners with Gaelic heritage $\alpha = .95$; Non-learners without Gaelic heritage $\alpha = .96$; French learners $\alpha = .99$).

Frequency of heritage/second language use. The 12 items from the WTC scale (McCroskey & Baer, 1985) were adapted to measure the frequency of communicating in Gaelic/French for each of the 12 situations, using a 7-point scale with the anchors “never” and “many, many times”. The expected range of scores for this measure would be 12-84. A high score indicated that the student communicated often in Gaelic (Gaelic Learners $\alpha = .96$, Non-learners with Gaelic heritage $\alpha = .85$; Non-learners without Gaelic heritage $\alpha = .92$; French learners $\alpha = .99$).

Gaelic/French learning experience. To address the three main issues of the present research (the social context, heritage language usage, and subjective norms), four open-ended questions were asked to the Gaelic/French learners at time 1. They were (1) What does it mean to you to be learning Gaelic/French in Nova Scotia? (2) In which situation(s) do you get to speak Gaelic/French most often? (3) Can you think about what has brought you to the decision to learn Gaelic/French and describe the role that your parents or other family members have played in that decision? (4) Think about all the different situations in which you have contact with Gaels/Francophones or the Gaelic/French language. Which one(s) do you feel were most beneficial to you? At time 2, the learners were asked a different set of questions taking into account the three months the students had spent learning Gaelic/French. The questions were (1) How important is Gaelic in your life? (2) Do you feel that the prospects for Gaelic/French survival are good in Nova Scotia? (3) Considering all options, both inside and outside the classroom, how do you intend to maintain your proficiency in Gaelic/French? (4) What was your best strategy for learning Gaelic/French in this class?

General information. This section provided background information on the students in relation to their age, gender, program of study, mother tongue, mother's/father's language, place of birth and their heritage background.

Gaelic teacher interviews. Danesi (1991) called for more qualitative analysis in heritage language learning. The purpose of interviewing the Gaelic language teachers is to provide insight into their goals for the language students and the potential obstacles of teaching a heritage language. Sample questions are: (1) how did you come to be teaching Gaelic? (2) what does it mean to you to be teaching Gaelic (3) what has been your biggest challenge in teaching Gaelic? (4) do you feel that you have adequate resources to teach Gaelic?

Procedure

The participants were recruited from introductory Gaelic, psychology and French classes. The time 1 testing session took place in September during the second class of the term. The time 2 testing session occurred in December during the last class of the term. Given the possibility that some students could be in both the Gaelic and psychology classes that were being tested, instructions to the students included asking them to refrain from completing the questionnaire twice. Participation was anonymous, voluntary and had no bearing on course grade. The participants were asked only to provide their initials and data of birth so that the time 1 and time 2 questionnaires could be paired. Those who did not wish to participate were permitted to leave the classroom. Once participants consented, they were given the class period to complete the questionnaires. Participation took approximately 30 minutes.

For the Gaelic teacher interview, the two Gaelic teachers⁵ from St. FX and UCCB were contacted by phone and asked if they would be interested in taking part in an interview

⁵ At the time of the study, there were only two teachers, one from each institution, who were teaching Gaelic.

pertaining to their Gaelic teaching experience. Both teachers agreed to the interview. They were informed through an information sheet and consent form that the interviews would be audio-taped for accuracy. They were identified as Professor A and Professor B to ensure their anonymity. One Gaelic professor was available for a sit-down interview, while another, due to scheduling difficulties, offered to respond to the interview questions and forward the responses to the researchers via mail. The sit-down interview lasted approximately 90 minutes.

Analytic Strategy

Preliminary data screening (Chapter 3). Frequency analyses and multiple regressions are employed to test for the assumptions concerning missing data, normality, multicollinearity, singularity, linearity and outliers. The analyses are performed separately for the four groups at time 1 and for the two groups at time 2.

Time 1 data: baseline comparisons (Chapter 4). Means analyses and structural equation modeling are employed to examine the differences among the four groups, Gaelic learners, French learners, non-learners of Gaelic who have a Gaelic heritage, non-learners of Gaelic who do not have a Gaelic heritage. Specifically, the goal is to examine any differences among the groups on the levels of and relationships among language confidence, ethnolinguistic vitality perceptions, frequency and quality of contact, ethnic identity, WTC, subjective norms and language use.

A longitudinal approach (Chapter 5). In order to emphasize the effects of the target language and linguistic context on language learning, Gaelic and French learners are compared over time to explore differences in language confidence, vitality perceptions, frequency and quality of language contact, WTC, L1 and target language identity, subjective norms and language use. This chapter also introduces a longitudinal model of HL use, whereby language

use at time 1 directly influences the language process at time 2. Structural equation modeling is employed to delineate the language learning process over time.

A qualitative approach (Chapter 6). Cluster analysis is employed to identify and classify language learners who tend to have similar language learning characteristics. The notion is to determine whether, for example, Gaelic and French learners tend to have different attitudes toward the target language or tend to use different strategies for learning the target language. The other goal of this chapter is to gain insight into the prospects for Gaelic survival from the point of view of native Gaelic speakers and teachers. Analysis of Gaelic teacher interviews are employed to explore the past, present and future of Gaelic in the province. The Gaelic teachers' and students' responses to the same set of questions are compared to determine if there is any overlap in their views on Gaelic in Nova Scotia.

CHAPTER 3

PRELIMINARY DATA SCREENING

Time 1 Data

A preliminary screening of the data was performed separately for each group, Gaelic learners, non-learners of Gaelic with a Gaelic heritage, non-learners of Gaelic with no Gaelic heritage and French learners. Since the groups would be compared in the subsequent analyses, it was deemed appropriate to conduct the preliminary analysis for each group separately. Also, performing the analyses separately would take into consideration the presence of two different target languages. The data in each group were checked for missing values, normality, linearity, multicollinearity, singularity and outliers in the data (see Tables 3.1 to 3.4 for summary).

Missing Values

Gaelic learners. The first step in the preliminary analysis concerns identifying the amount and nature of missing values. The variables actual English vitality, actual French vitality, actual Gaelic vitality, desired English vitality, desired French vitality, desired Gaelic vitality, and quality of contact with Gaels were identified as having more than 5% missing values. As such, these variables were dummy coded (0=missing, 1=non-missing) and separate t-tests⁶ were performed to determine whether the data were systematically or randomly missing. The results indicated that there were no significant differences between those with and those without missing values on any of the variables. The data, therefore, were missing at random (MAR).

The missing value analysis provided by SPSS 13.0 was performed to replace the missing values. Since there was only a small amount of missing data and it was determined that the data were MAR,

⁶ The family-wise error rates were adjusted accordingly for the number of t-tests conducted.

Table 3.1

Descriptive Statistics for Gaelic Learners

Variable	Mean	SD	Skew.	Kurt.
Confidence	19.87	10.39	1.29	.78
Actual Vitality				
English	37.37	1.80	-.13	-.83
French	27.37	4.37	.34	-.41
Gaelic	15.47	2.86	.41	.87
Desired Vitality				
English	34.27	4.76	-1.20	2.33
French	17.41	6.23	.59	-.08
Gaelic	24.68	6.42	-.06	-1.01
Freq. of contact	22.99	11.04	.79	-.155
Qual. of contact	35.57	13.03	-.07	-.92
WTC	26.42	11.66	.89	.46
L1 ID	26.19	7.61	-.47	-.78
L2/HL ID	21.82	9.05	1.42	5.68
Norms	23.10	10.82	1.08	1.13
Use	23.20	15.28	2.14	4.55

Note. N=75; SD=standard deviation; Skew.=skewness; Kurt.=kurtosis.

Table 3.2

Descriptive Statistics for French Learners

Variable	Mean	SD	Skew.	Kurt.
Confidence	24.60	8.85	.33	-.48
Actual Vitality				
English	37.24	2.40	-1.03	.81
French	23.96	4.23	.40	-.23
Gaelic	13.09	3.40	.49	.38
Desired Vitality				
English	37.12	2.75	-.65	-.77
French	23.66	7.18	1.32	7.45
Gaelic	11.04	4.35	2.40	6.30
Freq. of contact	17.54	8.44	.87	-.04
Qual. of contact	27.56	12.39	.34	-.65
WTC	25.40	12.00	.85	.20
L1 ID	35.89	6.36	-2.07	4.44
L2/HL ID	15.12	5.91	.78	-.06
Norms	26.42	12.68	.64	-.31
Use	30.72	15.45	1.16	1.46

Note. N=142; SD=standard deviation; Skew.=skewness; Kurt.=kurtosis.

Table 3.3

Descriptive Statistics for Non-learners of Gaelic with a Gaelic Heritage

Variable	Mean	SD	Skew.	Kurt.
Confidence	11.93	3.64	1.03	.15
Actual Vitality				
English	36.62	2.83	-1.11	1.09
French	25.84	4.73	-.13	-.28
Gaelic	14.74	3.91	1.52	4.19
Desired Vitality				
English	37.89	2.61	-1.41	1.49
French	17.76	6.26	.52	-.42
Gaelic	12.24	4.34	1.90	4.93
Freq. of contact	10.75	3.94	2.07	5.27
Qual. of contact	17.96	11.44	1.52	2.00
WTC	15.87	8.57	2.77	8.35
L1 ID	36.09	7.62	-2.68	6.72
L2/HL ID	10.62	4.72	3.44	15.09
Norms	14.41	6.21	2.94	7.93
Use	13.20	4.98	5.27	28.57

Note. N=111; SD=standard deviation; Skew.=skewness; Kurt.=kurtosis.

Table 3.4

Descriptive Statistics for Non-learners of Gaelic without a Gaelic Heritage

Variable	Mean	SD	Skew.	Kurt.
Confidence	12.51	3.63	.38	-1.64
Actual Vitality				
English	37.43	2.50	-2.16	7.15
French	25.09	4.32	.12	.58
Gaelic	14.04	3.82	.06	-.78
Desired Vitality				
English	38.87	1.93	-2.18	4.80
French	16.91	7.08	.56	-.77
Gaelic	10.23	3.24	2.01	4.01
Freq. of contact	9.40	3.16	3.52	16.00
Qual. of contact	12.46	6.56	2.14	4.47
WTC	14.38	6.12	2.68	6.04
L1 ID	37.32	6.92	-3.01	8.28
L2/HL ID	8.69	2.00	4.75	28.11
Norms	13.03	4.21	4.72	22.11
Use	12.23	0.94	4.23	17.37

Note. N=98; SD=standard deviation; Skew.=skewness; Kurt.=kurtosis.

Expectation Maximization (EM) was deemed a suitable strategy. EM estimates the means, the covariance matrix, and the correlation of quantitative variables with missing values, using an iterative process.

Non-learners of Gaelic with a Gaelic heritage. The variables Gaelic confidence, actual Gaelic vitality, quality of contact with Gaels, and Gaelic identity were identified as having more than 5% missing values. As such, these variables were dummy coded (0=missing, 1=non-missing) and separate t-tests were performed to determine whether the data were systematically or randomly missing. The results indicated that there were no significant differences between those with and those without missing values on any of the variables. The data, therefore, were considered MAR. The EM method was employed on these data as well to manage the missing values.

Non-learners of Gaelic without a Gaelic heritage. The variables Gaelic confidence, actual French vitality, actual Gaelic vitality and quality of contact with Gaels were identified as having more than 5% missing values. Again, separate t-tests were performed to determine whether the data were systematically or randomly missing. The results indicated that there were no significant differences between those with and those without missing values on any of the variables. The data were considered MAR and the EM method was employed on these data to replace the missing values.

French learners. The variables Gaelic confidence, actual Gaelic vitality, quality of contact with Gaels, and Gaelic identity were identified as having more than 5% missing values. As such, these variables were dummy coded (0=missing, 1=non-missing) and separate t-tests were performed to determine whether the data were systematically or randomly missing. The

results indicated that there were no significant differences between those with and those without missing values on any of the variables. The data, therefore, were considered MAR. As with the Gaelic learners and non-learners, the EM method was employed to replace the missing values.

Normality, Multicollinearity, Singularity and Linearity

Gaelic learners. To check for normality in the data, the frequencies analysis provided by SPSS 13.0 was employed. Generally, skewness values of 1.00 or less and kurtosis values around 2.00 or less are acceptable. It was determined that the distributions for Gaelic confidence, English desired ethnolinguistic vitality, Gaelic identity, and Gaelic use were slightly skewed and kurtotic. To deal with this potential problem, transformations of the data are generally employed. However, Tabachnick and Fidell (2001) caution against automatically transforming data. They argue that, in many cases, transformation of the data can lead to difficulty in interpretation. It was deemed inappropriate to transform these data for two reasons. First, because the present research is comparing the variables across different groups, transforming a variable in one group would make it difficult to perform comparisons to another group. Second, the scales employed in the present study are widely recognized and transformations of such scales, according to Tabachnick and Fidell (2001), may limit interpretation. The non-normality exhibited in some of the variables for this group is not surprising. The slight positive skewness of Gaelic language confidence, Gaelic identity and Gaelic use is not unexpected among the Gaelic learners at the beginning of the semester. Further, the negative skewness of the desired English vitality is not unusual given that the students are Anglophone. Therefore, it was deemed inappropriate to transform these data. Caution, however, will be taken when interpreting the results of subsequent analyses.

To test for multicollinearity and singularity in the data, separate regressions were performed with each variable taking turn as the criterion with all other variables entered as the independent variables. The regressions produce squared multiple correlations (SMC) for the variables. High SMCs indicate multicollinearity. Variables that produce SMCs of 1.00 are perfectly correlated with the others, indicating singularity. The SPSS 13.0 program provides tolerance levels (1-SMC) instead of SMCs. Therefore, multicollinearity would be demonstrated through tolerances that approach zero. Correlations close to 1.00 would indicate singularity. The results of the regression analyses for the present group showed that none of the tolerances approached zero and none of the zero-order correlations were above .80, indicating the absence of multicollinearity and singularity.

To test for linearity of the data, bivariate scatterplots were produced through SPSS 13.0. In general, scatterplots that are oval in shape are an indication of a linear relationship between variables. There was no indication of curvilinear relationships in any of the scatterplots.

Non-learners of Gaelic with a Gaelic heritage. For this group, the distributions for actual English vitality, actual Gaelic vitality, desired English vitality, desired Gaelic vitality, frequency of contact with Gaels, quality of contact with Gaels, WTC in Gaelic, Anglophone identity, Gaelic identity, subjective norms and Gaelic use were skewed and kurtotic. Again, transformations of the data are generally employed in this situation in an attempt to normalize the distributions. For the same reasons highlighted above, it was deemed inappropriate to transform these data. As was the case for the Gaelic learners, it is reasonable to assume that the data would be non-normal among this population. Specifically, it is not unusual that these non-learners would present positive skewness of actual and desired Gaelic vitality, frequency and quality of contact, WTC, Gaelic identity, subjective norms and Gaelic use. It was hypothesized

that, because these students are not learning Gaelic, they would score rather low on these variables. It is for this reason, as well, that actual and desired English vitality and Anglophone identity are negatively skewed. The non-learners score high on these variables possibly due to a lack of exposure to the Gaelic language. As with the Gaelic learners, caution will be taken when interpreting the results of subsequent analyses.

Again, to test for multicollinearity and singularity in the data, separate regressions were performed. The results showed that none of the tolerances approached zero and none of the zero-order correlations were above .58, indicating the absence of multicollinearity and singularity in the data.

Scatterplots of bivariate relationships were performed to check for linearity in the data. None of the scatterplots indicated a curvilinear relationship among the variables.

Non-learners of Gaelic without a Gaelic heritage. The distributions for actual English vitality, desired English vitality, desired Gaelic vitality, frequency of contact with Gaels, quality of contact with Gaels, WTC in Gaelic, Anglophone identity, Gaelic identity, subjective norms and Gaelic use were skewed and kurtotic. It was, again, deemed inappropriate to transform these data. These students have no Gaelic heritage and are not learning Gaelic. It is reasonable to assume that the data would also be non-normal among this population. Specifically, it is not unusual that these non-heritage and non-learners would present positive skewness of desired Gaelic vitality, frequency and quality of contact, WTC, Gaelic identity, subjective norms and Gaelic use. It was hypothesized that, because these students are not learning Gaelic, they would score rather low on these variables. It is for this reason, as well, that actual and desired English vitality and Anglophone identity are negatively skewed. The non-learners score high on these variables possibly due to a lack of exposure to the Gaelic language as well as the Gaelic culture.

The non-normality of the data will be taken into consideration when interpreting the results of subsequent analyses.

Separate regressions were performed to test for multicollinearity and singularity in the data. The results showed that none of the tolerances approached zero and none of the zero-order correlations were above .61, indicating the absence of multicollinearity and singularity in the data.

Scatterplots of bivariate relationships were performed to check for linearity in the data. None of the scatterplots indicated a curvilinear relationship among the variables.

French learners. The distributions for actual English and French vitality, for desired English vitality and for Anglophone identity were skewed and kurtotic. Again, for the reasons listed above, transformations of the data were not performed. As was the case for the Gaelic learners, it is reasonable to assume that the data would be skewed for this particular population. Specifically, it is not unusual that these French learners would exhibit negative skewness in their perceptions of actual English and French vitality, desired English vitality and Anglophone identity. As with the other groups, this will be taken into consideration when interpreting the results.

Separate regressions were performed on this group as well to test for multicollinearity and singularity. Again, none of the tolerances approached zero and none of the zero-order correlations were above .72, indicating the absence of multicollinearity and singularity in the data.

Examination of bivariate scatterplots was performed to test for linearity in this group as well. As with the other two groups, the bivariate scatterplots showed no indication of a curvilinear relationship among the variables.

Univariate and Multivariate Outliers

Gaelic learners. The third step was to check for the presence of univariate and multivariate outliers. To check for univariate outliers, the standardized scores for each of the variables were obtained to identify any scores greater than ± 3.29 (two-tailed, $p < 0.001$). Once the scores were identified, the histograms were examined to determine whether the scores were indeed outliers or simply represented a natural “tapering off” of the distribution. These scores were also checked to assure that they were valid and reasonable (i.e. they fall within the range of the scale). Only actual English vitality was free of potential outliers. As for the remaining variables, the scores that exceeded the ± 3.29 criterion were valid and represented the tails of the distributions. To check for multivariate outliers, the Mahalanobis distance measure was employed. This measure is obtained through the regression analysis procedure provided by SPSS 13.0. For this group, there were 12 outliers found to have Mahalanobis distances greater than the critical $\chi^2 (14) = 36.123$ at $p < .001$. Given the small sample size for this group, deleting the cases was not a desirable option. The recommendation of Tabachnick and Fidell (2001) in this case is to assign the outliers a raw score that is one unit larger or smaller than the next most extreme score. This was done to reduce the potential impact of the outliers.

Non-learners of Gaelic with a Gaelic heritage. Again, the standardized scores for each of the variables were obtained to identify any scores greater than ± 3.29 (two-tailed, $p < 0.001$). Once the scores were identified, the histograms were examined to determine whether the scores were indeed outliers or simply represented a natural “tapering off” of the distribution. These scores were also checked to ensure that they were valid and reasonable. All the variables showed some scores outside the criterion. However, as with the Gaelic learners, these scores were all valid and represented the tail-ends of the distributions. The Mahalanobis distance

measure was employed to check for multivariate outliers in this group as well. This time, 9 cases were identified as potential outliers. Again, the deviance of these scores was reduced by assigning a value that was one unit larger or smaller than the next extreme score.

Non-learners of Gaelic without a Gaelic heritage. The standardized scores for each of the variables revealed that actual and desired English vitality, desired Gaelic vitality, frequency and quality of contact with Gaels, WTC in Gaelic, Anglophone and Gaelic identity, subjective norms and Gaelic use had potential outliers. An examination of the histograms revealed that the scores represented the tail-ends of the distributions. These scores were also deemed valid and reasonable. The Mahalanobis distance measure, obtained through regression analysis, was employed to check for multivariate outliers in this group. Among the variables, 11 cases were greater than the critical chi-square value of 36.123 ($p=.001$). Rather than delete these cases, the deviance of these scores was reduced by assigning a value that was one unit larger or smaller than the next extreme score.

French learners. This group was checked for univariate and multivariate outliers as well. Again, the standardized scores for each of the variables were obtained to identify any scores greater than ± 3.29 (two-tailed, $p < 0.001$). Once the scores were identified, the histograms were examined to determine whether the scores were indeed outliers or simply represented a natural “tapering off” of the distribution. These scores were also checked to assure that they were valid and reasonable. Only quality of contact with Francophones was free of potential outliers. As for the remaining variables, the scores that exceeded the ± 3.29 criterion were valid and represented the tails of the distributions. Through obtaining the Mahalanobis distances for this group as well, it was determined that only 2 cases were slightly above the critical χ^2 value. These cases were allowed to remain in the analyses.

Time 2 Data

A preliminary data screening of the two groups, Gaelic learners and French learners, in the second testing session of the present study was performed. As with the time 1 data, the data in time 2 were checked for missing values, normality, linearity, multicollinearity, singularity and outliers in the data (see Tables 3.5 and 3.6 for descriptive summary). Again, the two groups were checked separately because they would be compared in subsequent analyses and to take into account the two different target languages.

Missing Values

Given the dramatic loss of participants in the time 2 testing session, it was necessary to find a procedure that would reduce the uncertainty due to missing data. Although there are many single imputation methods available (listwise deletion, mean substitution, regression), they tend to be invalid and biased (Sinharay, Stern, & Russell, 2001; Wothke, 1998). These single imputation procedures have been recently replaced by a multiple imputation of missing data. The present study employed NORM (Schafer, 1999), a program designed to perform multiple imputation, in order to estimate the missing data. In multiple imputation, complete data sets (anywhere from 5-10) containing different imputed values are generated. These data sets can be analyzed through most statistical software, such as SPSS or EQS. The results produced from each data set can then be combined by NORM to obtain an overall average.

Table 3.5

Descriptive Summary of Gaelic Learners at Time 2⁷

Variable	Mean	SD	Skew.	Kurt.
Confidence	18.72	9.53	.79	.06
Actual Vitality				
English	35.28	4.16	-.33	-1.70
French	22.05	7.60	.03	-1.24
Gaelic	13.20	4.91	.62	-.18
Desired Vitality				
English	29.57	7.80	-.13	-1.58
French	14.69	8.18	1.17	.71
Gaelic	20.87	8.69	.17	-1.38
Freq. of contact	17.84	10.61	1.15	1.20
Qual. of contact	27.44	14.51	.42	-1.08
WTC	23.79	12.32	.80	-.30
L1 ID	22.41	12.77	.04	-1.64
L2/HL ID	18.57	9.38	.47	-1.00
Norms	21.64	12.21	1.28	1.19
Use	23.05	16.06	2.00	3.84

Note. N=75; SD=standard deviation; Skew.=skewness; Kurt.=kurtosis.

⁷ The values presented represent the average across the 10 imputed data sets.

Table 3.6

Descriptive Summary of French Learners at Time 2⁸

Variable	Mean	SD	Skew.	Kurt.
Confidence	17.92	10.20	.73	-.67
Actual Vitality				
English	33.14	5.12	.12	-1.80
French	17.37	7.71	.41	-1.24
Gaelic	10.89	4.14	1.72	3.56
Desired Vitality				
English	32.15	5.37	.30	-1.64
French	15.96	8.69	.58	-.93
Gaelic	9.82	3.74	2.96	4.64
Freq. of contact	13.57	8.35	1.66	1.99
Qual. of contact	17.66	14.92	1.38	.58
WTC	19.42	10.83	1.40	1.20
L1 ID	25.76	11.96	.11	-1.90
L2/HL ID	11.55	5.49	1.69	2.36
Norms	20.19	12.62	1.54	1.55
Use	21.94	16.18	2.20	4.96

Note. N=142; SD=standard deviation; Skew.=skewness; Kurt.=kurtosis.

⁸ The values presented represent the average across the 10 imputed data sets.

In the present study, all the variables were entered in the imputation model. As mentioned, NORM can create any number of data sets, although 5-10 are recommended (Sinharay, Stern & Russell, 2001). In this case, 10 complete data sets were generated by NORM⁹. The main analyses concerning time 2 data were, therefore, conducted, not once, but ten times, with the results presented representing overall estimates. In contrast to time 1 preliminary analyses, the time 2 data underwent the following test for normality, multicollinearity, singularity, linearity and outliers prior to replacing missing values. This was to ensure that, because a large number of values had to be estimated from existing values, there were no severe deviations from the assumptions in the two groups. Also, the multiple imputation procedure requires that the data are close to normal. Thus, it was necessary to test this assumption prior to replacing the missing values.

Normality, Multicollinearity, Singularity and Linearity

Gaelic learners. To check for normality in the data, the frequencies analysis provided by SPSS 13.0 was employed. The only variable that demonstrated a deviation from normality was actual French vitality. Given that the skewness was only minor and in the expected direction (negative), this variable was not transformed.

To test for multicollinearity and singularity in the data, separate regressions were performed with each variable taking turn as the criterion with all other variables entered as the independent variables. The results of the regression analyses for the present group showed that none of the tolerances approached zero and none of the zero-order correlations were above .74, indicating the absence of multicollinearity and singularity.

⁹ Prior to conducting the imputation procedure, NORM provides the option of rounding the imputed values. This is to ensure that the generated values are not negative or out of range. For the purposes of the present study, the values were rounded to the observed variables. Prior to conducting the analyses, the values imputed by NORM were checked to ensure that they all fell within the acceptable range for each measure.

To test for linearity of the data, bivariate scatterplots were produced through SPSS

13.0. In general, scatterplots that are oval in shape are an indication of a linear relationship between variables. There was no indication of curvilinear relationships in any of the scatterplots.

French learners. The frequencies analysis indicated that, as with the Gaelic learners, the only variable that demonstrated a deviation from normality was actual French vitality. Again, the skewness was minor and in the expected direction (negative). This variable was, therefore, not transformed.

To test for multicollinearity and singularity in the data, separate regressions were performed with each variable taking turn as the criterion with all other variables entered as the independent variables. The results of the regression analyses for the present group showed that none of the tolerances approached zero and none of the zero-order correlations were above .78, indicating the absence of multicollinearity and singularity.

The bivariate scatterplots were produced through SPSS 13.0 to test for linearity. Among the French learners, there was no indication of curvilinear relationships in any of the scatterplots.

Univariate and Multivariate Outliers

Gaelic learners. The standardized scores for each of the variables were obtained to identify any scores greater than ± 3.29 (two-tailed, $p < 0.001$). There were no univariate outliers in this group. The Mahalanobis distance measure was employed to check for multivariate outliers in this group as well. There were no distances greater than the critical chi-square (36.123, $p < .001$), indicating the absence of multivariate outliers as well.

French learners. Again, the standardized scores for each of the variables were obtained to identify any scores greater than ± 3.29 (two-tailed, $p < 0.001$). Once the scores were identified, the histograms were examined to determine whether the scores were indeed outliers or

simply represented a natural “tapering off” of the distribution. These scores were also checked to assure that they were valid and reasonable. There were six scores that were slightly above the critical value that represented the tail-ends of the distributions. There were no multivariate outliers in this group as evidenced by the absence of any Mahalanobis distance greater than the critical value.

The data for the four groups in time 1 and the two groups in time 2, therefore, have been checked and prepared for subsequent analyses. Any violations of the assumptions (i.e. deviations from normality) are considered in the interpretation of the results.

CHAPTER 4

TIME 1 DATA: BASELINE COMPARISONS

The goal of this chapter is to determine if there are any differences among four groups of students, Gaelic learners, non-learners of Gaelic with a Gaelic heritage, non-learners of Gaelic without a Gaelic heritage and French learners in the first testing session¹⁰. Five sets of analyses are conducted on the data¹¹. The first is a path model of the variables proposed to be related to Gaelic/French identity and use. The second analysis is a multigroup test of invariance to determine if there are any significant differences in the parameter estimates in the final path models of the four groups. The last three are analyses of variance investigating (1) the effect of the target language on confidence, contact, WTC, subjective norms and use; (2) the relationship between the target language and vitality perceptions; (3) the relationship between the target language and identification to the first and target language groups.

Path Model

Structural equation modeling was chosen for its confirmatory, rather than exploratory, approach to data analysis. By specifying the relationships among the variables a priori, the hypotheses concerning the imposed causal relationships among the variables are more easily tested. The proposed model is presented in Figure 4.1¹². To test this hypothetical model,

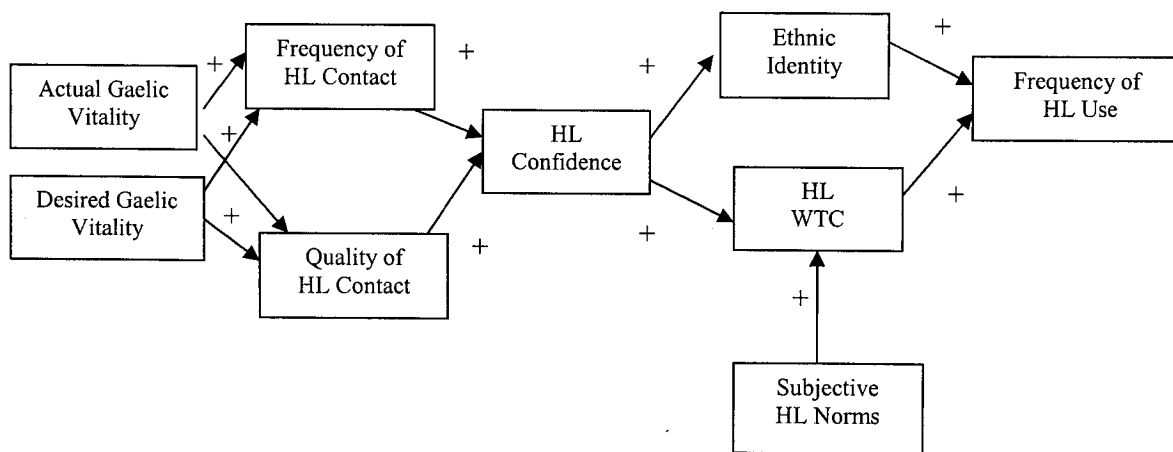
¹⁰ A MANOVA was performed to verify if there were any effects of the learning institution. Among Gaelic learners, students from UCCB and St. FX only differed in their language confidence, $F(1,30)=4.67, p<.05$; among French learners, they differed in relation to confidence, $F(1,135)=30.75, p<.05$ and use $F(1,135)=14.32, p<.05$; among the two groups of non-learners of Gaelic, there were no significant differences between the UCCB and St. FX students on any of the variables. The UCCB and St. FX students, therefore, were not treated separately for any of the four groups of learners/non-learners.

¹¹ Descriptive information indicated that there were 37 French learners with a French background. To determine if these students differed significantly from those who did not have a French background, the analyses were performed first with the two groups separated. The results indicated that there were no significant differences between the two groups. All subsequent analyses, therefore, were performed on the French learners as a whole.

¹² This is the same proposed model as Figure 1.2.

Figure 4.1

Proposed Model of Heritage Language Use



separate path analyses were performed on the four groups of students (Gaelic learners, French learners, with heritage non-learners, without heritage non-learners) using EQS 6.1 (Bentler, 2004). This program is one of the most accurate for data that may not be normally distributed at the multivariate level and provides robust statistics (Byrne, 1994) suitable for small sample sizes. Further, in addition to providing goodness of fit indices¹³, this software provides parameters directing the modification of the hypothesized model until it achieves the best possible fit to the data. Specifically, the Lagrange multiplier test reveals which paths should be added to the model while the Wald test identifies paths to be deleted.

Gaelic Learners

The proposed model did not initially produce an adequate goodness of fit to the data (see Table 4.1). This initial model was, therefore, rejected. In order to begin posthoc model testing, the Wald test for dropping parameters was used to determine which paths are not significantly contributing to the model fit. This test suggested dropping the paths from quality of contact to Gaelic confidence, from actual Gaelic vitality to frequency and quality of contact, and from Anglophone identity to Gaelic use. The Wald test also suggested removing the covariance between actual and desired Gaelic vitality. Since the parameter estimates for these paths were all non-significant, they were dropped from the initial model. The increase in the chi-square that resulted from removing these paths was non-significant, $\Delta\chi^2(6) = 6.069, p > .05$.

Examination of the modification indices, which were obtained using the Lagrange Multiplier (LM), test suggested that several paths, depicted by dotted lines in Figure 4.2, be added one by one to improve the model fit. Given the very poor fit of the initial model, all of the recommended paths were added to verify if there was a better model that would achieve a more

¹³ Comprehensive information regarding goodness of fit statistics provided by EQS can be found in Byrne (1994).

Table 4.1

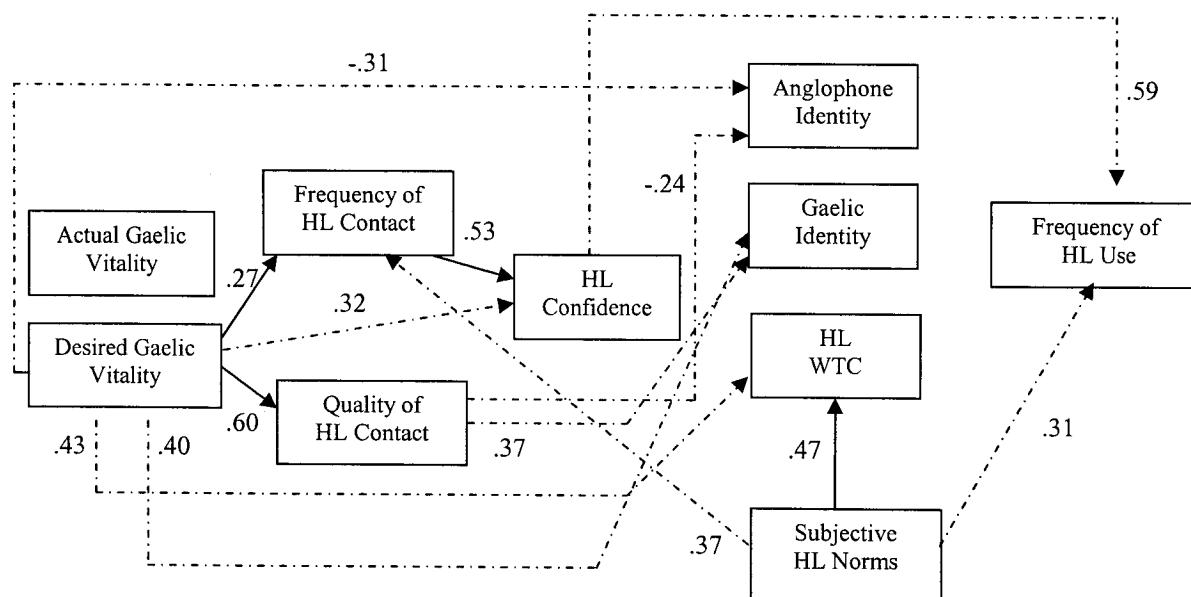
Goodness of Fit Statistics Related to HL Communication Models

Model	χ^2	df	$\Delta\chi^2$	Δdf	p	RMSEA	CFI
Gaelic learners							
Initial	192.691	29			.000	.28	.57
Final	44.027	25	148.664	4	.000	.10	.95
French learners							
Initial	172.095	29			.000	.19	.75
Final	58.031	28	114.064	1	.000	.08	.95
Heritage non-learners							
Initial	154.035	31			.000	.19	.37
Final	47.066	36	114.437	5	.000	.05	.94
No heritage non-learners							
Initial	177.440	31			.000	.22	.46
Final	48.379	31	141.495	0	.000	.08	.94

Note. χ^2 = chi-square, df = degrees of freedom, $\Delta\chi^2$ = change in chi-square, Δdf = change in degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index.

Figure 4.2

Final model of Gaelic use among Gaelic learners



acceptable fit to the data for this particular group. The first four paths were from desired Gaelic vitality to Gaelic confidence, Gaelic identity, Anglophone identity and WTC. The next two paths were from subjective norms to Gaelic use and frequency of contact. The last three paths were from Gaelic confidence to Gaelic use and from quality of contact to Anglophone and Gaelic identity. Three error covariances were also suggested between frequency of contact and Gaelic use, confidence and WTC and confidence and quality of contact. The addition of these paths resulted in a substantial improvement to the model fit and a significant decrease in chi-square. However, the paths from WTC and Gaelic identity to Gaelic use, and from language confidence to Anglophone and Gaelic identity and WTC were no longer significant and, therefore, deleted. The comparative fit index (CFI), which compares the hypothesized model to the null (independent) model¹⁴, was well above the acceptable value of .90. The root mean square error of approximation (RMSEA), which evaluates the practicality of the model, was just above the .08 cutoff value (Browne & Cudeck, 1992). This model is, therefore, accepted for comparisons with the models for the other three groups, but will be interpreted with caution.

French Learners

The proposed model did not initially produce an adequate goodness of fit to the data (refer to Table 4.1). This initial model was, therefore, rejected. The Wald test was used to determine if any of the proposed paths failed to contribute significantly to the model. The paths from Anglophone identity to French use, from quality of contact to French confidence, from French confidence to Anglophone identity, from desired French vitality to quality of contact, and from actual French vitality to quality of contact were non-significant and, therefore, dropped

¹⁴ The null model refers to the model in which all correlations among the variables are zero.

from the model. The subsequent increase in chi-square was non-significant, $\Delta\chi^2(5) = 6.07$, $p > .05$.

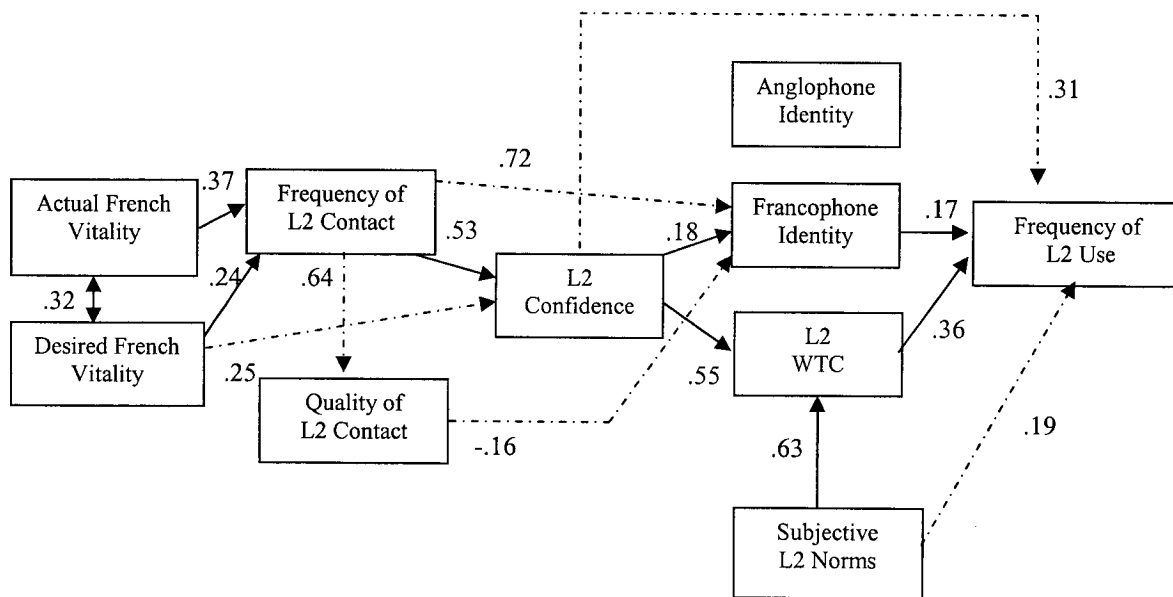
Examination of the modification indices obtained from the LM test suggested the addition of six paths and two correlated errors to the model. These paths are depicted by dotted lines in Figure 4.3. Three of these paths, from quality of contact to French identity, from confidence to French use and from subjective norms to use were present in the model for Gaelic learners as well. The fourth path was from frequency to quality of contact and the fifth path was from frequency of contact to French identity. Again, previous research has found a direct relationship between contact with the target language group and identification to that group (Clément et al., 2003). The final path was from desired French vitality to French confidence. The two correlated errors were between confidence and WTC and quality of contact and language use. These correlations were specified as finding correlations among errors from the same measurement is not uncommon. The addition of these correlations and the six paths resulted in a substantial improvement to the model fit. The chi-square was significantly reduced and the CFI was above the acceptable value. The RMSEA was .08, which is at the cutoff value. This post hoc model, therefore, fits well to the data.

Non-learners of Gaelic with a Gaelic heritage

The proposed model did not initially produce an adequate goodness of fit to the data (refer to Table 4.1). This initial model was, therefore, rejected. The Wald test was used to identify the paths that did not contribute significantly to the model. The paths from actual Gaelic vitality to frequency and quality of contact, from Gaelic confidence to Anglophone identity, Gaelic identity and WTC, from Anglophone and Gaelic identity to Gaelic use, from frequency of contact to Gaelic confidence, and from desire Gaelic vitality to quality of contact were non-

Figure 4.3

Final model of French use among French learners



significant and, therefore, dropped from the model. The subsequent increase in chi-square was non-significant, $\Delta\chi^2(9) = 7.468$, $p > .05$.

The LM test suggested the addition of five new paths to the model. These paths are depicted by dotted lines in Figure 4.4. Two of the paths, from frequency to quality of contact and from subjective norms to Gaelic use, were present among the Gaelic learners as well. The next two paths were from frequency of contact and desired Gaelic vitality to Gaelic identity. Given that this finding is consistent with previous research, the paths were added to the model. The final path was from Gaelic identity to Anglophone identity. This relationship between the different facets of identification is consistent with past research (Noels et al., 1996). The addition of the five paths resulted in a substantial improvement to the model fit. The chi-square was significantly reduced and the CFI was above the acceptable value. Further, the RMSEA was below the .08 cutoff. It is concluded that the final model fits well to these data.

Non-learners of Gaelic without a Gaelic heritage

The proposed model did not initially produce an adequate goodness of fit to the data (refer to Table 4.1). This initial model was, therefore, rejected. The Wald test was used to identify the paths that did not contribute significantly to the model. The paths from Gaelic confidence to Anglophone identity, Gaelic identity, and WTC, from Anglophone identity to Gaelic use, from actual Gaelic vitality to quality of contact, from frequency and quality of contact to Gaelic confidence were non-significant and, therefore, dropped from the model. The subsequent increase in chi-square was non-significant, $\Delta\chi^2(7) = 12.434$, $p > .05$.

Examination of the modification indices provided through the LM test suggested the addition of seven new paths to the model. These paths are depicted by dotted lines in Figure 4.5. Consistent with the group of non-learners with a Gaelic heritage, there was a path from

Figure 4.4

Final model of Gaelic use among non-learners with a Gaelic heritage

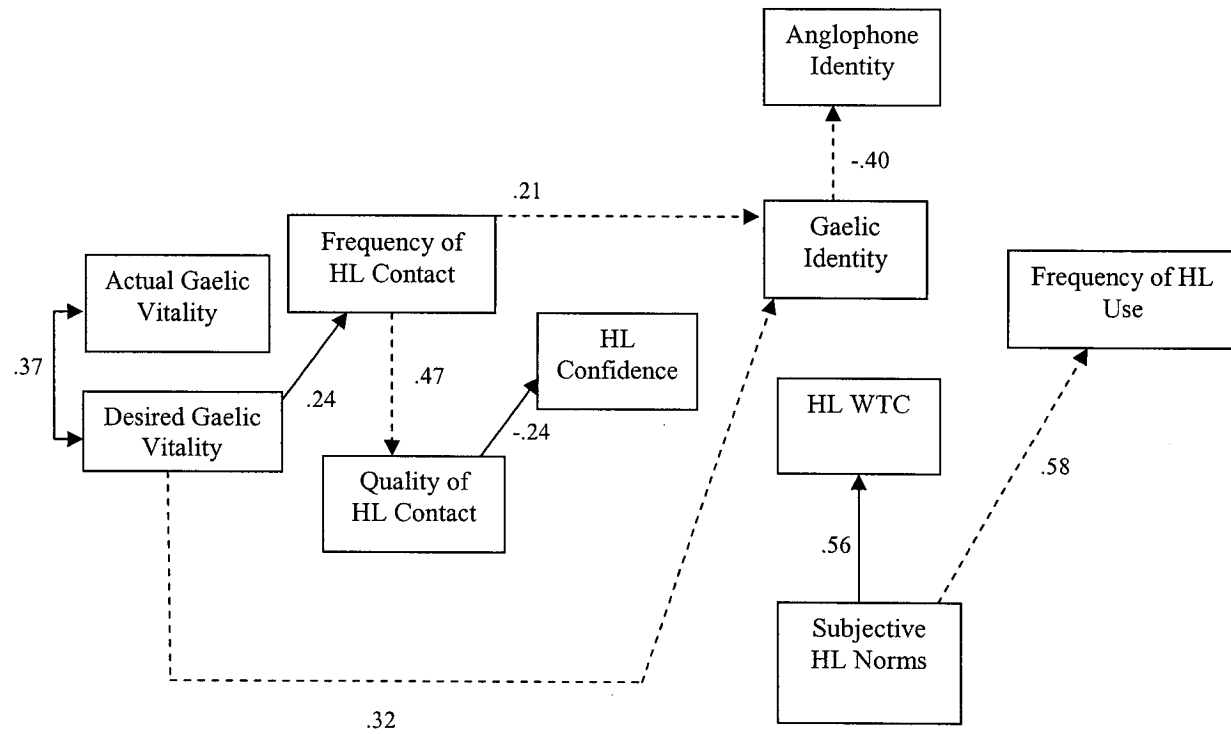
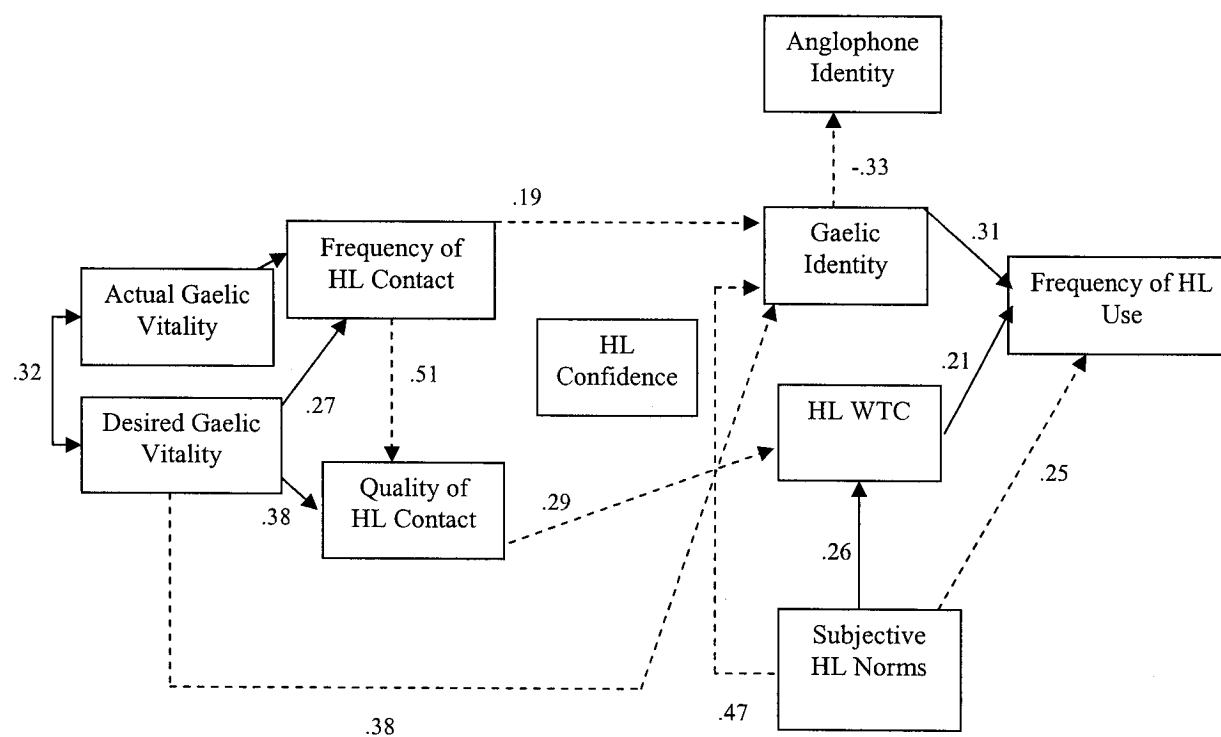


Figure 4.5

Final model of Gaelic use among non-learners without a Gaelic heritage



frequency of contact and from desired Gaelic vitality to Gaelic identity. There was also a path from Gaelic identity to Anglophone identity. The paths from frequency to quality of contact and from subjective norms to language use were consistent with the other three models as well. Unique to this group, however, is the suggestion of the paths from quality of contact to WTC and from subjective norms to Gaelic identity. Given that this group of students do not have a Gaelic heritage and are not learning Gaelic, they may rely on outside influences like contact and normative pressure to determine their language behaviour and identification processes. The paths were added to the model. The addition of the seven paths resulted in a substantial improvement to the model fit. The chi-square was significantly reduced and the CFI was above the acceptable value. The RMSEA was just at the .08 cutoff. It is, therefore, concluded that the final model fits well to these data.

In sum, the final models for all four groups, in general, were not consistent with the proposed model. In particular, for Gaelic learners and non-learners, there was no significant relationship among Gaelic language confidence, ethnic identity and WTC. Further, ethnic identity and WTC had no influence on Gaelic use. Among all four groups, subjective norms directly determined language use. Desired Gaelic vitality was important for Gaelic learners as it by-passed contact and directly determined language confidence, WTC and ethnic identity (both Anglophone and Gaelic).

Multigroup Invariance

The test of multigroup invariance evaluates the extent to which the solution obtained across groups is comparable. As seen above, the final models for all four groups were inconsistent with the proposed model of heritage/second language use and required post hoc fitting challenging their generalisability. In order to ascertain the reliability of the final solutions,

their systematic comparison was, therefore, undertaken. Demonstrating that these final solutions are equivalent across groups would support their generalisability. This was done using the multigroup invariance procedure. Thus, still using EQS 6.1 (Bentler, 2004), the procedure was applied comparing the final model of Gaelic learners to that of (1) those learning a different target language (French learners); (2) those who have a Gaelic heritage, but are not learning Gaelic (non-learners of Gaelic with a Gaelic heritage); (3) those who are not learning Gaelic and do not have a Gaelic heritage (non-learners of Gaelic without a Gaelic heritage).

Gaelic and French learners

There were five paths that were identical for these two groups. These paths were constrained and the results are presented in Table 4.2. The CFI and RMSEA values indicated that the goodness of fit was acceptable. The LM test, however, indicated that all but two constraints, depicted as broken arrows, were equal across both groups (see Figure 4.6). The paths between quality of contact and target language identity and language confidence and use were noninvariant across the two groups. In both cases, the path coefficients were significantly higher among the Gaelic learners. The other three constraints were freed and the results are provided in Table 4.2 (final model). There was a significant improvement to the goodness of fit.

Gaelic learners and non-learners of Gaelic with a Gaelic heritage

The four paths that were common to both groups were constrained and the results are presented in Table 4.2. The goodness of fit statistics revealed an acceptable fit. It was indicated through the LM test that one path, which is depicted as a broken arrow, was noninvariant for the two groups (see Figure 4.7). The path coefficient in the relationship between subjective norms and language use was significantly higher among non-learners of Gaelic. The other paths were

Table 4.2

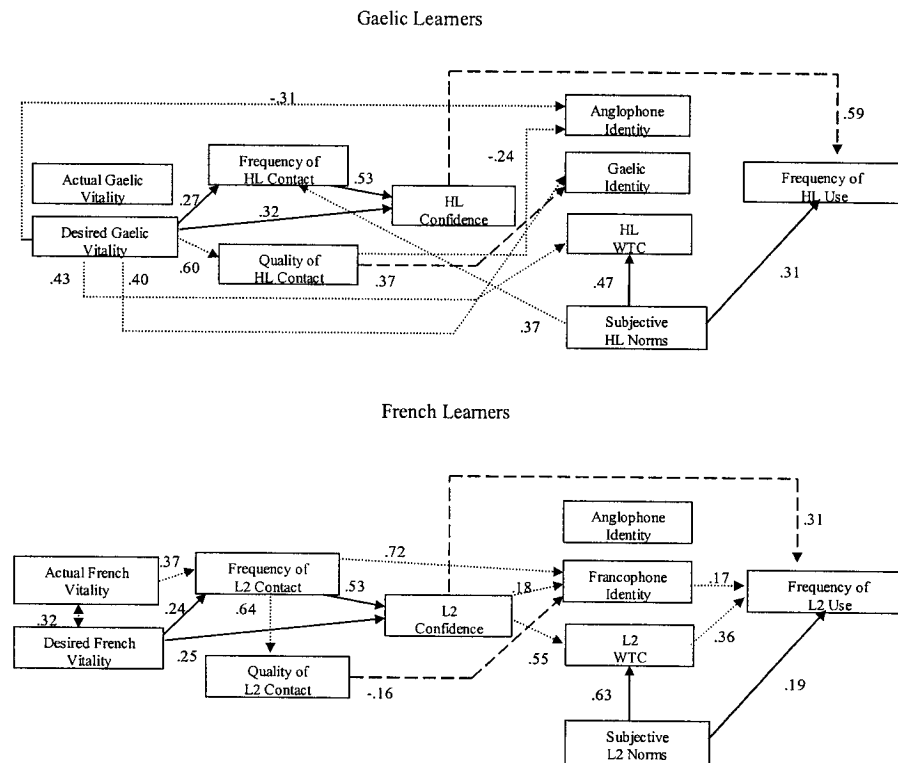
Goodness of Fit Statistics Related to Multigroup Invariance

Models	χ^2	df	$\Delta\chi^2$	Δ df	p	RMSEA	CFI
Gaelic/French							
Initial	132.329	58				.08	.92
Final	113.699	55	18.63	3	.000	.07	.94
Gaelic/HNL							
Initial	99.086	65				.05	.94
Final	97.782	62	1.30	3	ns	.06	.94
Gaelic/NHNL							
Initial	98.177	61				.06	.94
Final	95.831	57	2.35	4	ns	.06	.94

Note. χ^2 = chi-square, df = degrees of freedom, $\Delta\chi^2$ = change in chi-square, Δ df = change in degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index, HNL = non-learners with a Gaelic heritage, NHNL = non-learners without a Gaelic heritage.

Figure 4.6

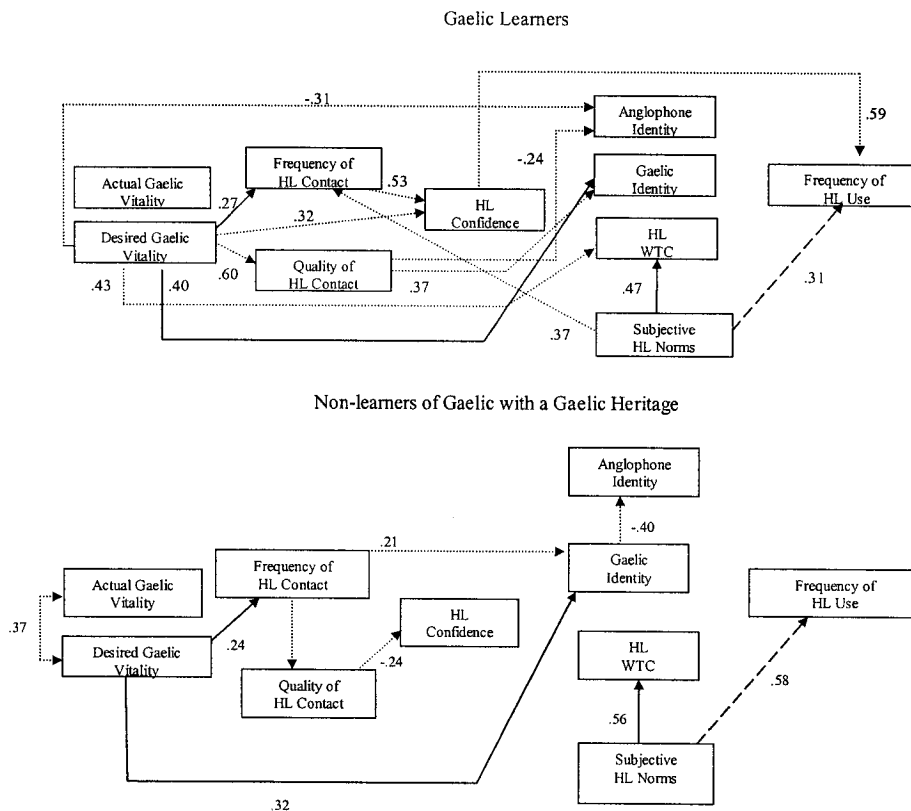
Multigroup Invariance of Gaelic and French learners



Note. The solid arrows in the model refer to common paths, while the shadowed arrows refer to uncommon paths between the two groups. The non-invariant paths are depicted by broken arrows.

Figure 4.7

Multigroup Invariance of Gaelic learners and non-learners of Gaelic with a Gaelic Heritage



Note. The solid arrows in the model refer to common paths, while the shadowed arrows refer to uncommon paths between the two groups. The non-invariant paths are depicted by broken arrows.

freed and the results presented in Table 4.2 demonstrate that there was no significant change to model fit.

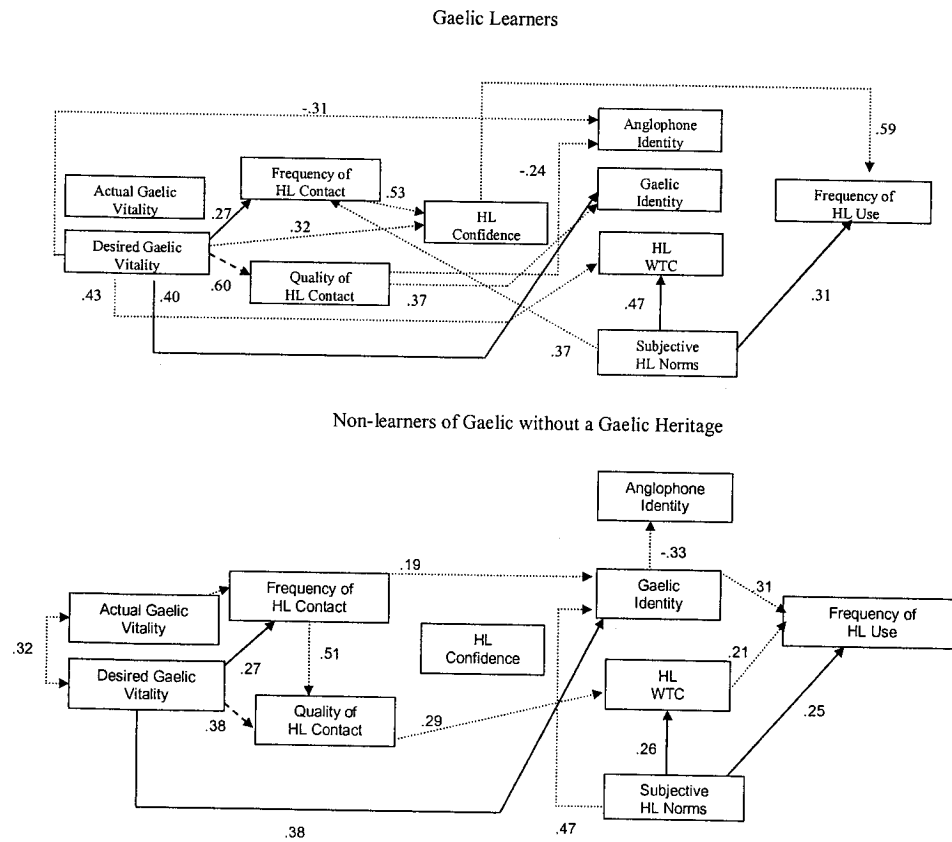
Gaelic learners and non-learners of Gaelic with no Gaelic heritage

There were five paths common to the final models of these two groups. After constraining these paths, the test of invariance produced an acceptable goodness of fit (Table 4.2). The LM test revealed that one path, depicted by a broken arrow, was not equal for both groups (see Figure 4.8). The path from desired Gaelic vitality to quality of contact was higher among Gaelic learners. This path was allowed to differ between the two groups. The results are presented in Table 4.2 (final model).

In sum, language confidence and aspects of contact were more important to identity and language use among Gaelic learners than French learners. The relationship between subjective norms and Gaelic use was stronger for non-learners of Gaelic than for Gaelic learners. Finally, the importance of desired vitality was, again, demonstrated in the significantly higher path to quality of contact among Gaelic learners when compared to non-learners with no Gaelic heritage.

Figure 4.8

Multigroup Invariance of Gaelic learners and Non-Learners of Gaelic without a Gaelic Heritage



Note. The solid arrows in the model refer to common paths, while the shadowed arrows refer to uncommon paths between the two groups. The non-invariant paths are depicted by broken arrows.

In order to determine any differences among the four distinct groups, three separate means analyses were performed. The first was a multivariate analysis of variance comparing Gaelic learners, French learners, non-learners of Gaelic with a Gaelic heritage, and non-learners of Gaelic without a Gaelic heritage (Table 4.3). The dependent variables were language confidence, frequency and quality of language contact, willingness to communicate, subjective norms and language usage. The results showed a significant difference among the groups at the multivariate and univariate levels. Tukey's HSD posthoc analysis was performed to determine where the groups differed (see Figure 4.9).

Target Language Confidence

The French learners indicated significantly higher language confidence than the other three groups¹⁵. This was followed by the Gaelic learners who indicated significantly higher language confidence than the groups of students not learning Gaelic, who did not differ between themselves¹⁶.

Frequency of Target Language Contact

Gaelic learners indicated significantly higher frequency of language contact than the other groups¹⁷. The French learners had a higher frequency of language contact than the two groups of non-learners of Gaelic, who did not differ between themselves¹⁸.

¹⁵ French vs. Gaelic learners, $q(2)=6.53, p<.05$; vs. non-learners of Gaelic with Gaelic heritage, $q(2)=18.13, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=19.69, p<.05$.

¹⁶ Gaelic learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=9.44, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=10.46, p<.05$; non-learners of Gaelic with Gaelic heritage vs. non-learners of Gaelic without Gaelic heritage, $q(2)=0.82, p>.05$.

¹⁷ Gaelic vs. French learners, $q(2)=7.53, p<.05$; vs. non-learners of Gaelic with Gaelic heritage, $q(2)=16.13, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=14.45, p<.05$.

¹⁸ French learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=10.55, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=12.20, p<.05$; non-learners of Gaelic with Gaelic heritage vs. non-learners of Gaelic without Gaelic heritage, $q(2)=1.92, p>.05$.

Table 4.3

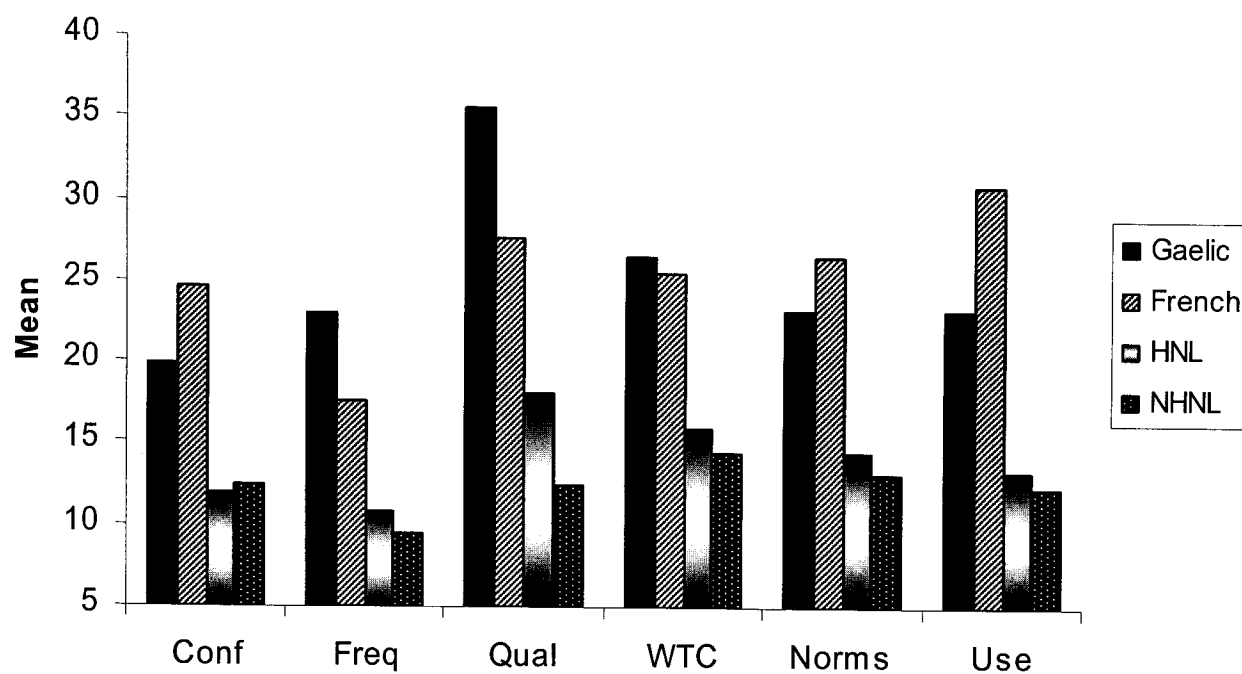
MANOVA Summary of the Effects of Learner Type

Main Effect of Learning	<i>F</i>	<i>df</i>	η	<i>p</i>
MANOVA	23.942**	18, 1257	.26	.000
Univariate				
Confidence	86.89**	3, 422	.38	.000
Frequency	69.70**	3, 422	.33	.000
Quality	76.28**	3, 422	.35	.000
WTC	40.43**	3, 422	.22	.000
Norms	55.62**	3, 422	.28	.000
Use	73.21**	3, 422	.34	.000

Note. ** $p < .001$. Confidence = language confidence; Frequency=frequency of contact; Quality=quality of contact; WTC=willingness to communicate; Norms=subjective norms; Use=frequency of target language use.

Figure 4.9

The Effects of Learner Type



Note. From Table: Conf=confidence; Freq=frequency of contact; Qual=quality of contact; WTC=willingness to communicate; Norms=subjective norms; Use=frequency of target language use. From Legend: HNL = non-learners of Gaelic with a Gaelic heritage; NHNL = non-learners of Gaelic without a Gaelic heritage.

Quality of Target Language Contact

This was the only variable on which all four groups differed significantly from one another. The Gaelic learners indicated significantly higher quality of contact than the other three groups¹⁹. The French learners indicated a significantly higher quality than the two groups of non-learners²⁰. Finally, the non-learners with a Gaelic heritage indicated significantly higher quality of language contact than those without a Gaelic heritage²¹.

WTC

The Gaelic and French learners indicated a significantly higher WTC than the two groups of non-learners of Gaelic, who did not differ between themselves²². There was also no significant difference between Gaelic and French learners²³.

Subjective Norms

French learners indicated significantly higher normative pressure than the other three groups²⁴. The Gaelic learners perceived significantly higher normative pressure than the two groups of non-learners of Gaelic, who did not significantly differ between themselves²⁵.

¹⁹ Gaelic vs. French learners, $q(2)=10.93, p<.05$; vs. non-learners of Gaelic with Gaelic heritage, $q(2)=23.20, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=29.67, p<.05$.

²⁰ French learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=15.06, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=22.78, p<.05$.

²¹ Non-learners of Gaelic with Gaelic heritage vs. non-learners of Gaelic without Gaelic heritage, $q(2)=7.82, p<.05$.

²² Gaelic learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=13.89, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=15.45, p<.05$; French learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=14.81, p<.05$; non-learners of Gaelic without Gaelic heritage, $q(2)=16.53, p<.05$. Non-learners of Gaelic with Gaelic heritage vs. non-learners of Gaelic without Gaelic heritage, $q(2)=2.12, p>.05$.

²³ Gaelic vs. French learners, $q(2)=1.40, p>.05$.

²⁴ French vs. Gaelic learners, $q(2)=4.58, p<.05$; vs. non-learners of Gaelic with Gaelic heritage, $q(2)=18.66, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=20.08, p<.05$.

²⁵ Gaelic learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=11.45, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=12.93, p<.05$; non-learners of Gaelic with Gaelic heritage vs. non-learners of Gaelic without Gaelic heritage, $q(2)=1.96, p>.05$.

Language Use

The French learners indicated significantly higher target language use than the other three groups²⁶. The Gaelic learners indicated significantly higher language use than the two groups of non-learners, who did not differ between themselves²⁷.

Summary of Posthoc Analysis

In sum, the French learners indicated significantly higher language confidence, subjective normative pressure and language use than the other three groups. The Gaelic learners, on the other hand, indicated significantly higher frequency and quality of contact with Gaelic/Gaels. WTC was significantly higher among French and Gaelic learners. The only significant difference between the non-learners of Gaelic was in the quality of contact with Gaels, where those with a Gaelic heritage experienced more pleasant contact than those without a Gaelic heritage.

The effects of target language and vitality perceptions

In order to assess the differences across Gaelic learners, French learners, non-learners of Gaelic with a Gaelic heritage, non-learners of Gaelic without a Gaelic heritage in their actual and desired perceptions of English, French and Gaelic vitality, a 2 x 2 x 3 repeated measures analysis of variance was performed (Table 4.4). The between-subjects factor was the type of learner. The within-subjects factors were the type of perceptions of vitality (actual or desired) and the target language (English, French or Gaelic). The results revealed a significant effect of

²⁶ French vs. Gaelic learners, $q(2)=10.37, p<.05$; vs. non-learners of Gaelic with Gaelic heritage, $q(2)=27.23, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=27.72, p<.05$.

²⁷ Gaelic learners vs. non-learners of Gaelic with Gaelic heritage, $q(2)=13.18, p<.05$; vs. non-learners of Gaelic without Gaelic heritage, $q(2)=14.08, p<.05$; non-learners of Gaelic with Gaelic heritage vs. non-learners of Gaelic without Gaelic heritage, $q(2)=1.37, p>.05$.

Table 4.4

ANOVA Summary of the Effects of Target Language and Vitality

Source	<i>F</i>	<i>df</i>	η	<i>p</i>
Between-subjects				
Type of Learner	18.73**	3, 422	.12	.000
Within-subjects				
Vitality type	209.31**	1, 422	.33	.000
Target Language	5043.65**	2, 844	.92	.000
Vitality Type x Type of Learner	21.45**	3, 422	.13	.000
Target Language x Type of Learner	56.94**	6, 844	.29	.000
Vitality Type x Target Language	199.75**	2, 844	.32	.000
Vitality Type x Target Language x Type of Learner	82.90**	6, 844	.37	.000

Note. ** $p < .001$

the type of vitality perception (actual and desired), of target language (English, French and Gaelic), and of the type of learner (Gaelic, French, non-learners of Gaelic with and without a Gaelic heritage). There were also significant two-way interactions between the type of learner and the type of vitality perception, the target language and the type of learner, and the target language and the type of vitality perception. Finally, there was a significant three-way interaction among the type of learner, the target language and the type of vitality perception (Figure 4.10).

Tukey's posthoc analysis of the effect of type of learner indicated that Gaelic learners ($M = 26.10$) have significantly higher language vitality perceptions than the other three groups (French $M = 24.35$; non-learners with Gaelic heritage $M = 24.18$; non-learners without Gaelic heritage $M = 23.76$)²⁸, who did not differ among themselves. The means of the type of vitality perception indicated that perceptions of actual language vitality ($M = 25.69$) were significantly higher than desired language vitality ($M = 23.51$). The posthoc analysis of the effects of target language revealed significant differences among all three languages. Specifically, perceptions of English vitality ($M = 37.10$) were significantly higher than French ($M = 22.25$) and Gaelic ($M = 14.44$)²⁹. Perceptions of French vitality were significantly higher than perceptions of Gaelic vitality³⁰.

The posthoc analysis of the three-way interaction among type of learner, type of vitality perception and target language (Figure 4.10) revealed that, for Gaelic learners, there was a significant difference between actual and desired English vitality, $q(2) = 6.92, p < .05$, actual and

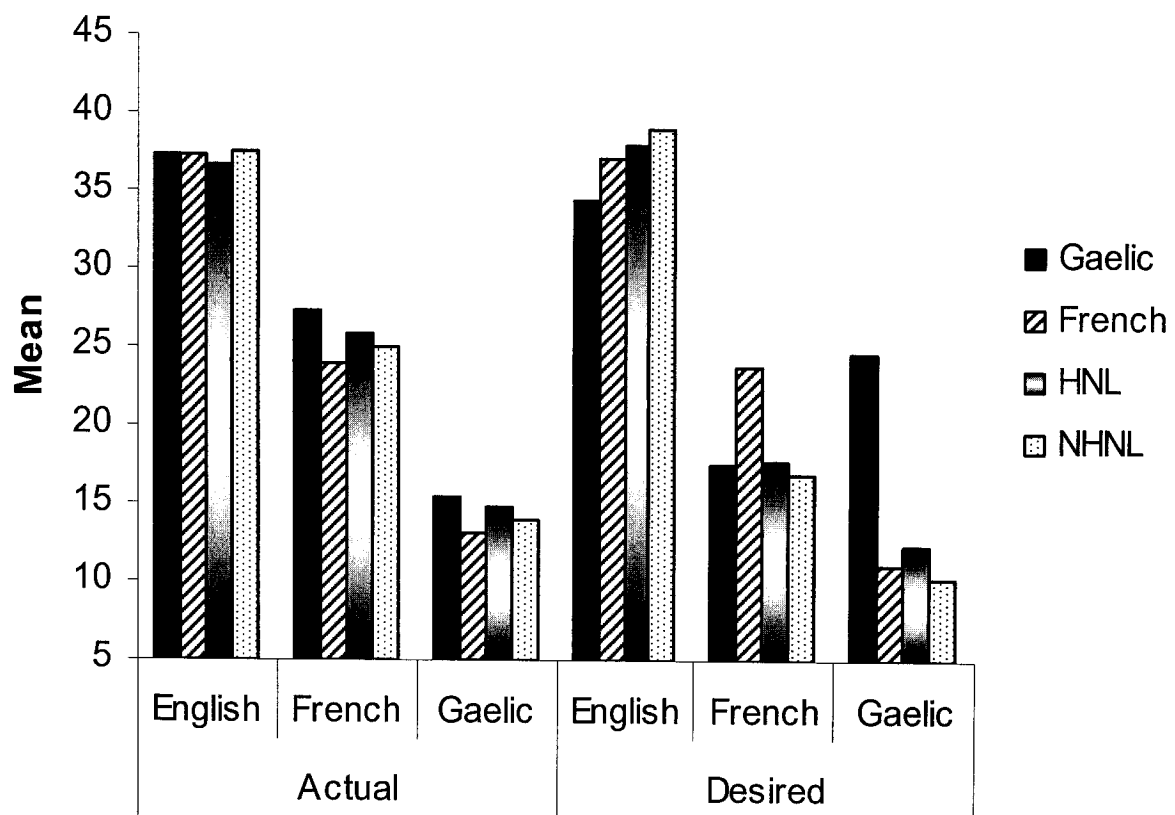
²⁸ Gaelic vs. French learners, $q(2) = 3.288, p < .05$; Gaelic vs. non-learners of Gaelic with a Gaelic heritage, $q(3) = 3.449, p < .05$; Gaelic vs. non-learners of Gaelic without a Gaelic heritage, $q(4) = 4.096, p < .05$.

²⁹ English vs. French, $q(2) = 66.516, p < .05$; English vs. Gaelic, $q(3) = 101.496, p < .05$.

³⁰ $q(2) = 34.98, p < .05$.

Figure 4.10

Effects of Learner, Target Language and Vitality



Note. HNL=non-learners of Gaelic with a Gaelic heritage; NHNL=non-learners of Gaelic without a Gaelic heritage.

desired French vitality, $q(2) = 22.24, p < .05$, and actual and desired Gaelic vitality, $q(2) = 20.56, p < .05$. Specifically, the actual perceptions of English and French vitality were higher than the desired perceptions, but the actual perception of Gaelic vitality was lower than the desired perception. For French learners, there was no significant difference between the actual and desired perceptions of English, $q(2) = .35, p > .05$ and French vitality, $q(2) = .92, p > .05$. Actual Gaelic vitality, however, was significantly higher than desired Gaelic vitality, $q(2) = 6.28, p < .05$.

Among non-learners of Gaelic with a Gaelic heritage, actual English vitality was significantly lower than desired English vitality, $q(2) = 3.45, p < .05$, actual French vitality was significantly higher than desired French vitality, $q(2) = 21.94, p < .05$ and actual Gaelic vitality was significantly higher than desired Gaelic vitality, $q(2) = 6.77, p < .05$. The pattern of results was the same for those without a Gaelic heritage³¹.

In sum, the Gaelic learners indicated the higher vitality perceptions than the other three groups who did not significantly differ among themselves. Desired Gaelic perceptions were significantly higher than actual Gaelic perceptions among Gaelic learners. The opposite is true for French learners where the desired perceptions of Gaelic vitality were significantly lower than the actual perceptions. The pattern of results was identical for the non-learners of Gaelic. Actual perceptions of French and Gaelic were significantly higher than desired perceptions. Desired perceptions of English, on the other hand, were significantly higher than actual perceptions. In general, desired vitality was more important than actual vitality for Gaelic learners compared to the other three groups who generally indicated higher actual language perceptions.

³¹ English actual vs. desired, $q(2) = 3.67, p < .05$; French actual vs. desired, $q(2) = 20.87, p < .05$; Gaelic actual vs. desired, $q(2) = 9.72, p < .05$.

The effects of target language and target identity

In order to determine if there are differences among the four groups of students (Gaelic learners, French learners, non-learners of Gaelic with a Gaelic heritage, non-learners of Gaelic without a Gaelic heritage) in their identification to the L1 (Anglophone) and target (French or Gaelic) language group, a 2 x2 repeated measures analysis of variance was performed (Table 4.5). The between-subjects factor was the type of learner. The within-subjects factor was the target identity. The results showed a significant effect of the type of learner and the target identity and a significant interaction between the type of learner and the target identity (Figure 4.11).

Tukey's posthoc analysis of the effect of the type of learner indicated that French learners show significantly higher identification than the two groups of non-learners³². There were no other significant differences among the groups. The effect of target identity showed that identification to the Anglophone group ($M=33.87$) was significantly higher than that to the target language group ($M=14.06$). The posthoc analysis of the interaction revealed that, among all four types of learners/non-learners, Anglophone identity was significantly higher than target language identity³³. In comparing the first and target language identities³⁴, the analyses indicated that non-

³² French vs. non-learners with a Gaelic heritage, $q(2)=4.35$, $p<.05$; French vs. non-learners without a Gaelic heritage, $q(2)=4.89$, $p<.05$.

³³ Gaelic-Anglophone vs. Gael, $q(2)=5.23$, $p<.05$; French-Anglophone vs. Francophone, $q(2)=34.25$, $p<.05$; Non-learners with a Gaelic heritage-Anglophone vs. Gael, $q(2)=37.15$, $p<.05$; Non-learners without a Gaelic heritage-Anglophone vs. Gael, $q(2)=39.22$, $p<.05$.

³⁴ *Anglophone identity*-Non-learners without Gaelic heritage vs. Non-learners with Gaelic heritage, $q(2)=3.49$, $p<.05$; Non-learners without Gaelic heritage vs. French learners, $q(2)=4.08$, $p<.05$; Non-learners without Gaelic heritage vs. Gaelic learners, $q(2)=31.79$, $p<.05$; Non-learners with Gaelic heritage vs. French learners, $q(2)=0.59$, $p>.05$; Non-learners with Gaelic heritage vs. Gaelic learners, $q(2)=28.31$, $p<.05$; French vs. Gaelic learners, $q(2)=27.72$, $p<.05$. *Target identity*-Gaelic vs. French learners, $q(2)=19.145$, $p<.05$; Gaelic vs. non-learners with Gaelic heritage, $q(2)=32.00$, $p<.05$; Gaelic vs. non-learners without Gaelic heritage, $q(2)=37.52$, $p<.05$; French learners vs. non-learners with Gaelic heritage, $q(2)=12.86$, $p<.05$; French learners vs. non-learners without Gaelic heritage, $q(2)=18.38$, $p<.05$; non-learners with Gaelic heritage vs. non-learners without Gaelic heritage, $q(2)=5.519$, $p<.05$.

Table 4.5

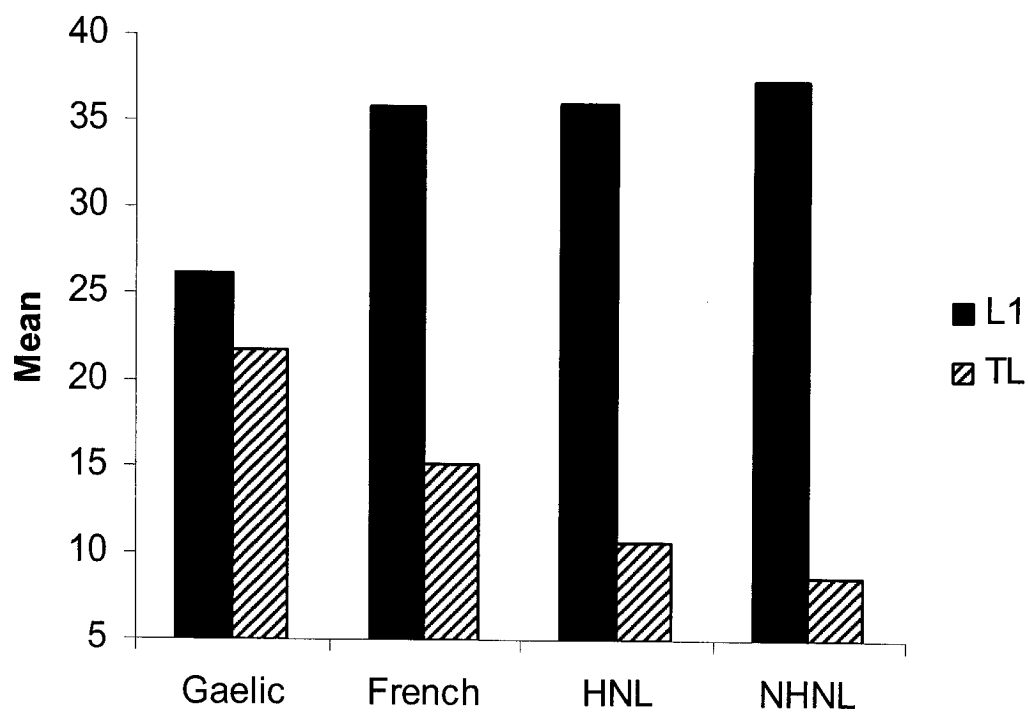
ANOVA Summary of the Effects of Target Language and Identity

Source	<i>F</i>	<i>df</i>	η	<i>p</i>
Between-subjects				
Type of Learner	10.10**	3, 422	.07	.000
Within-subjects				
Target Identity	1518.81**	1,422	.78	.000
Type of Learner x Target Identity	91.59**	3,422	.39	.000

Note. ** $p < .001$

Figure 4.11

The Effects of Learner and Identity



Note. L1=Anglophone Identity; TL=Target Language Identity; HNL=non-learners of Gaelic with a Gaelic heritage; NHNL=non-learners of Gaelic without a Gaelic heritage.

learners of Gaelic without a Gaelic heritage showed significantly higher Anglophone identity, but a significantly lower target language identity than the other three groups. The non-learners of Gaelic with a Gaelic heritage indicated significantly higher Anglophone identity than Gaelic and French learners. The Anglophone identity of Gaelic learners was significantly lower than that of the French learners. Gaelic learners indicated significantly higher target language identity, but significantly lower Anglophone identity than the other three groups. French learners showed significantly higher target language identity than the two groups of non-learners. Those without a Gaelic heritage indicated significantly lower target language identity than those with a Gaelic heritage.

In sum, the results of the interaction between target identity and type of learner demonstrate that those who are not learning a language (non-learners of Gaelic) indicate significantly higher identification to the first language (i.e. Anglophone) group and significantly lower identification to the target language group than those who are learning a language. Overall, Gaelic learners indicated the lowest Anglophone identity, but the highest target language (Gaelic) identity.

Chapter Summary

The first goal of this chapter was to examine the relationships among the variables and determine if there are any differences in the strength of these relationships across the groups. The final model for the French learners was somewhat consistent with the hypothesized model. Aspects of vitality directly influenced contact, which determined language confidence. Confidence, in turn, had a direct influence on identity and WTC, which determined language use. Also, subjective norms directly influenced WTC. Contrary to expectations, contact and vitality had a direct influence on identity and subjective norms and confidence had a direct influence on language use.

Contrary to the French learners, the final models for the Gaelic learners and both groups of non-learners of Gaelic are highly inconsistent with the proposed model. This is due to the several modifications to the models that were necessary in order to improve model fit. For Gaelic learners, there were significant paths from desired Gaelic vitality to frequency and quality of contact as proposed. Also consistent with hypotheses, subjective norms directly influenced WTC and frequency of contact directly determined language confidence. Contrary to hypotheses, however, desired Gaelic vitality directly influenced language confidence, Anglophone and Gaelic identity and WTC. Further, quality of contact directly determined Anglophone and Gaelic identity. Finally, language use was a direct outcome of both language confidence and subjective norms, which also determined frequency of contact.

Among non-learners of Gaelic with a Gaelic heritage, there were significant paths from desired Gaelic vitality to frequency of contact as proposed. Also, quality of contact determined language confidence and subjective norms determined WTC. Unexpectedly, however, frequency of contact directly influenced quality of contact and Gaelic identity. There was also a direct path

to Gaelic identity from desired vitality. Anglophone identity was only determined by Gaelic identity. Finally, language use was a direct outcome of only subjective norms.

Among non-learners of Gaelic without a Gaelic heritage, desired and actual Gaelic vitality directly influenced frequency of contact. Desired vitality determined quality of contact. Gaelic identity and WTC directly influenced language use and subjective norms determined WTC. Contrary to hypotheses, frequency of contact directly influenced quality of contact and Gaelic identity. WTC was a direct outcome of both quality of contact and desired vitality. Subjective norms directly determined Gaelic identity and language use. Finally, Anglophone identity was only influenced by Gaelic identity.

The second goal of this chapter was to determine if the strength of the relationships proposed model would differ across the groups. In a comparison of the common paths found across French and Gaelic learners, it was determined that the relationships between quality of contact and identity and language confidence and use were stronger among Gaelic learners. The results suggest first that pleasant contact with the target language group is more important to identification to that group for Gaelic learners, but not French learners. In fact, for the French learners, the relationship between quality of contact and Francophone identity was negative, suggesting that their Francophone identity decreases as pleasant contact increases. This result is contrary to hypotheses, but may imply that French learners, when put in pleasant French contact situations, are not satisfied with their ability to speak French, thus reducing their identification to that group. The higher path coefficient obtained in the relationship between confidence and use among Gaelic learners, which also runs contrary to hypotheses, suggests that this relationship is more important for that group. The path from WTC to use that was absent for the Gaelic

learners was present for the French learners, suggesting that WTC may be more important to their language use than confidence.

There was only one significantly different relationship in the models of the Gaelic learners and non-learners of Gaelic with a Gaelic heritage. It was determined that the relationship between subjective norms and use was higher among the non-learners of Gaelic. This relationship contradicts the hypothesis that argued that subjective norms would serve as a more salient source of support for those who are learning Gaelic. Although both groups have a Gaelic heritage, the non-learners are not learning the language and would, perhaps, rely more heavily on subjective norms to make the choice to communicate in Gaelic.

There was also only one significantly different path between Gaelic learners and non-learners of Gaelic without a Gaelic heritage. For Gaelic learners, the relationship between desired Gaelic vitality and quality of contact was stronger. This is consistent with hypotheses. Having a Gaelic heritage and learning Gaelic, therefore, appears to make the desire for more Gaelic resources a more important influence on the nature of contact with Gaels.

One noticeable finding is the presence of the direct path from subjective norms to language use in all four models. This would suggest that language identity and WTC are not necessarily the only precursors to language use. Further, normative pressure, in addition to influencing the choice to perform the behaviour (WTC), also influences the actual performance of the behaviour (language use).

The final models for the non-learners of Gaelic suggest that outside influences like contact, vitality and norms have the strongest relationships with aspects of the language learning process. This can be seen in the direct paths from vitality and contact to Gaelic identity and from subjective norms to language use. In the final model for those with no Gaelic heritage, there

were paths from Anglophone and Gaelic identity to language use that were not present among those with a Gaelic heritage. In the absence of the Gaelic heritage, therefore, identification to the Gaelic language and culture are necessary precursors to Gaelic language use. Those with a Gaelic heritage, on the other hand, only require frequent contact and a desire for more Gaelic resources in their environment to determine Gaelic use.

The final goal of this chapter was to determine if there were any differences among Gaelic learners, French learners, non-learners of Gaelic with a Gaelic heritage, non-learners of Gaelic without a Gaelic heritage on language confidence, vitality perceptions, frequency and quality of contact, L1 and target language identity, subjective norms and language use. Consistent with hypotheses, French learners indicated significantly higher language confidence, subjective norms and language use than the other three groups. Also somewhat consistent with hypotheses was the finding that French learners indicated significantly higher WTC than the non-learners of Gaelic. Finally, non-learners of Gaelic indicated significantly higher Anglophone identity, but significantly lower target language (Gaelic) identity than Gaelic and French learners.

In addition to the consistencies, there were also some results that ran contrary to the hypotheses. First, it was expected that French learners, given the higher status of French compared to Gaelic, would experience more frequent and pleasant contact with Francophones. Gaelic learners, however, indicated significantly higher frequency and quality of contact with Gaels than the other three groups. This result may be a function of the linguistic make-up of the present context. Although French is an official language of Canada, the cultural atmosphere of eastern Nova Scotia favours the Gaelic language. Thus, although there are few Gaelic speakers left in Nova Scotia, Gaelic learners may be afforded greater Gaelic language contact through

other cultural representations, such as music or Ceilidhs. This may also explain why Gaelic learners indicated significantly higher Gaelic identity, but lower Anglophone identity than the other three groups, which also contradicted hypotheses.

Finally, it was expected that the two groups of non-learners of Gaelic would only significantly differ in terms of contact and Gaelic identity. The results were consistent in that the groups differed in their Gaelic identity and quality of language contact (with the group with a Gaelic heritage being higher), but were inconsistent in that there were no differences in their frequency of Gaelic contact. It would seem, therefore, that having a Gaelic heritage influences the nature of contact, but not the quantity. The linguistic context, therefore, appears to afford both groups equal contact to Gaels and the Gaelic language. Given that the two groups of non-learners of Gaelic were very similar overall, having a Gaelic heritage appears to have no influence on Gaelic language confidence, WTC, subjective norms or Gaelic language use.

In sum, this chapter has shown the importance of comparing different groups learning different target languages when introducing issues of vitality. Specifically, among Gaelic learners and non-learners, there is no relationship among language confidence, ethnic identity and WTC. For French learners, on the other hand, language confidence directly influences identity and WTC, which determine language use. The results of both the path analysis and the means analysis demonstrate the importance of desired Gaelic vitality to Gaelic learners. In the path model, desired Gaelic vitality directly determined language confidence, Anglophone and Gaelic identity and WTC. Further, in the means analysis, their desired perception of Gaelic vitality was significantly higher than their actual perception. These results, combined with the finding that Gaelic learners indicated a significantly higher Gaelic identity, but lower Anglophone identity than the other groups, suggest that Gaelic learners are favouring their

heritage language culture. Specifically, their sense of belonging seems to lie in the Gaelic culture rather than in the English culture.

Finally, this chapter has also shown the effects of subjective norms on language behaviour. First, in all four groups, normative pressure to use the language had a direct influence on language use. Second, norms were more important to WTC and use among those with a Gaelic heritage compared to those with no Gaelic heritage. In the present context, where the vitality of both the Gaelic and French languages is relatively low, identity and WTC are not the only influences on language behaviour.

CHAPTER 5

A LONGITUDINAL APPROACH

Considering the argument that context variables, like vitality and subjective norms, will influence language behaviour differently as a function of the target language, the goal of this chapter is to compare the learning of a heritage language (i.e. Gaelic) to the learning of a second language (i.e. French) in the same linguistic milieu. Since the Gaelic and French learners were tested at the beginning and end of the courses, it is possible to examine the effects of the milieu over time. There were five sets of analyses conducted on the data. The first is a longitudinal path analysis depicting the influence of vitality, language confidence, contact, willingness to communicate and subjective norms on Gaelic/French identity and use over time. The second is a multigroup invariance test to determine if there are significant differences in the strength of the relationships among the variables for French and Gaelic learners. The last three are analyses of variance investigating (1) the effect of the target language on language confidence, contact, WTC, subjective norms and language use over time; (2) the effects of learner, target language and vitality perceptions over time; (3) the effects of learner and target identity over time.

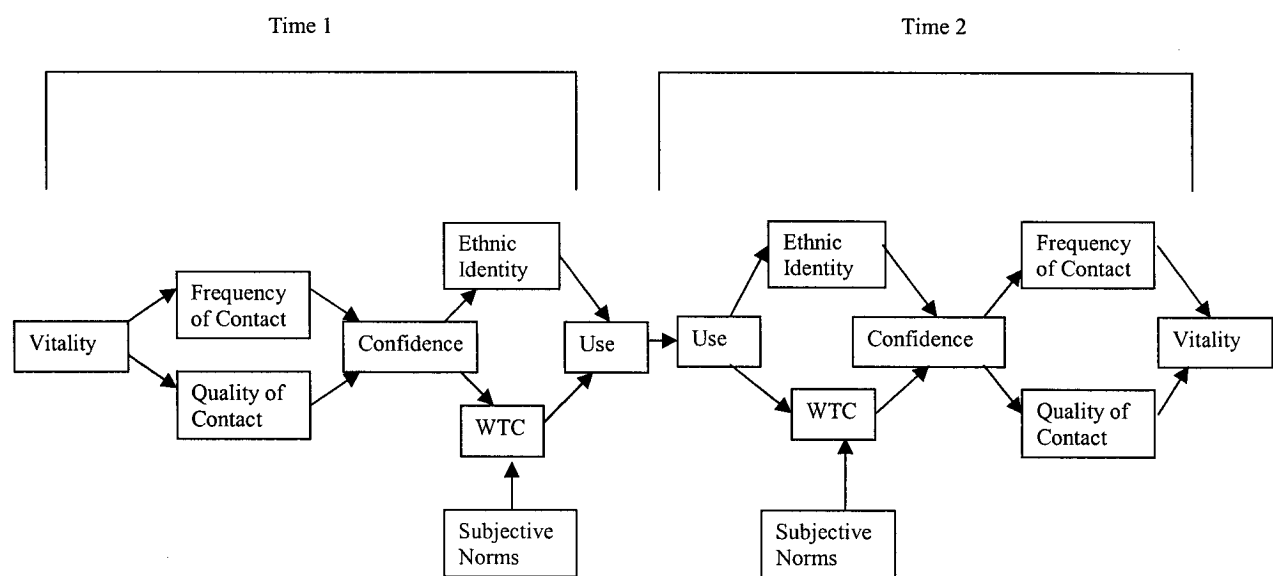
A Longitudinal Model of Language Use

The proposed model, tested separately for Gaelic learners and French learners, is presented in Figure 5.1³⁵. To test this hypothetical model, separate path analyses were performed using EQS 6.1 (Bentler, 2004). Again, the program is one of the most accurate for data that may not be normally distributed at the multivariate level and provides robust statistics (Byrne, 1994) suitable for small sample sizes. The Lagrange multiplier test was employed to reveal which paths should be added to the model while the Wald test was used to identify paths

³⁵ This is the same longitudinal model that is presented in Figure 1.3.

Figure 5.1

Proposed Longitudinal Model of Language Use



to be deleted. The maximum likelihood estimation method was used and the analyses were conducted on the covariance matrix.

At the onset of the time 1 portion of the model are the subjective perceptions of vitality, which are proposed to initially have a direct effect on the frequency and quality of contact with the target language group. Frequency and quality of contact, in turn, influence language confidence, which has a direct impact on ethnic identity and WTC. Finally WTC determines language use. It is proposed that language use at time 1 has a direct influence on language use at time 2. This, in turn, has an effect on the extent of identification with the first and target language groups and WTC. The extent of identification and WTC determine language confidence, which influences the extent of contact with the target language group and eventually perceptions of actual and desired language vitality. The measurement errors associated with the measures at time 1 and time 2 were allowed to correlate a priori. According to Anderson & Gerbing (1988), correlated errors may be expected when the same measures are used at different points in time, as is the case with the present longitudinal design.

Gaelic Learners

The proposed model did not initially produce an adequate goodness of fit to the data (see Table 5.1). This initial model was, therefore, rejected and posthoc model fitting was employed. Prior to examining the modification indices, the Wald test was used to identify non-significant parameters. Consistent with the time 1 only model, the test suggested dropping the paths from quality of contact to Gaelic confidence, from actual Gaelic vitality to frequency and quality of contact, and from Anglophone identity to Gaelic use. The Wald test also suggested removing the covariance between actual and desired Gaelic vitality. At time 2, the paths from Anglophone identity to language confidence and from frequency of contact to actual and desired vitality were

Table 5.1

Goodness of Fit Statistics Related to Longitudinal Models

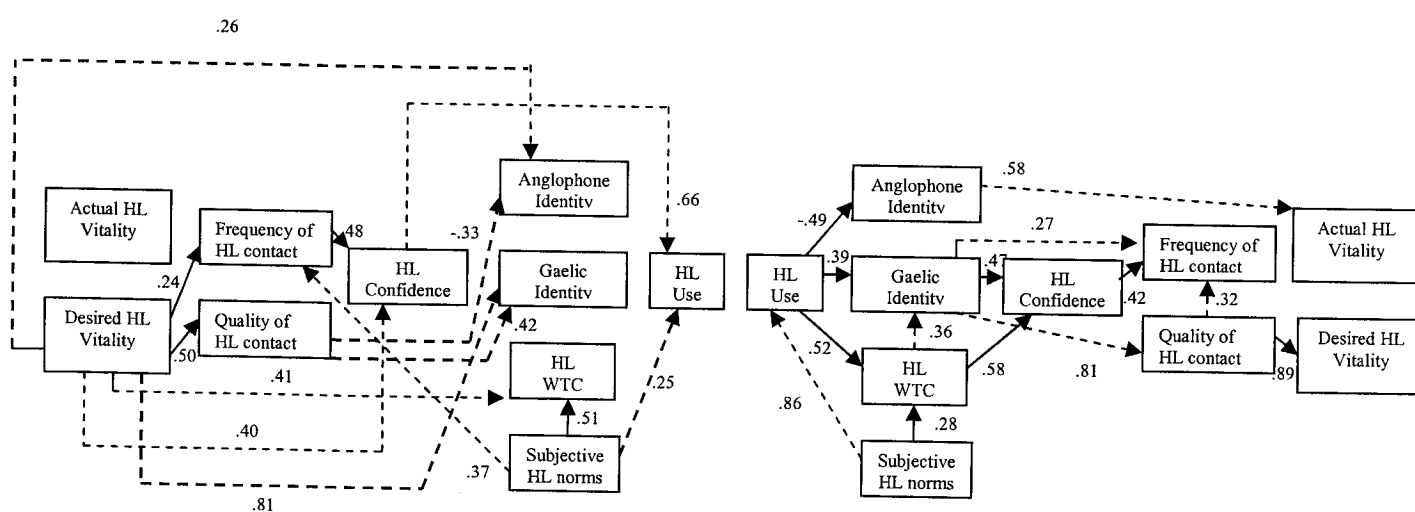
Model	χ^2	df	$\Delta\chi^2$	Δdf	p	RMSEA	CFI
Gaelic learners							
Initial	530.299	153			.000	.18	.67
Final	192.875	140	337.424	13	.000	.07	.95
French learners							
Initial	800.547	155			.000	.17	.71
Final	282.869	148	517.678	7	.000	.08	.94

Note. χ^2 = chi-square, df = degrees of freedom, $\Delta\chi^2$ = change in chi-square, Δdf = change in degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index.

non-significant. The path from Gaelic use at time 1 to Gaelic use at time 2 was also non-significant. These paths were dropped from the model. There was no significant change to the model fit, $\Delta\chi^2(10) = 16.439, p > .05$.

Examination of the modification indices provided by the LM test revealed that there were several paths suggested to improve the model fit. These are depicted by dotted lines in Figure 5.2. At time 1, paths from quality of contact to Gaelic and Anglophone identity, desired vitality to language confidence, Gaelic identity and WTC, subjective norms to frequency of contact and language use, and language confidence to language use were added. Again, this is consistent with the modification of the time 1 only model. At time 2, paths from subjective norms to language use, and quality of contact to frequency of contact were added. When these paths were added, the paths from quality of contact to actual vitality and confidence to quality of contact were no longer significant. Once these paths were dropped, there was a significant improvement to the model fit, although the RMSEA was not acceptable. A re-examination of the modification indices led to the addition of paths from Anglophone identity to actual vitality, Gaelic identity to frequency and quality of contact, and WTC to Gaelic identity. There were also several significant error covariances that were added to the model. In addition to the hypothesized error covariances, the errors between frequency of contact and use and between use and WTC were significant. This is not unusual as the measures were all designed to capture the extent of language communication. The addition of the paths and the error covariances led to a significant improvement to the model fit. The CFI was above the acceptable value and the RMSEA was .07.

Figure 5.2

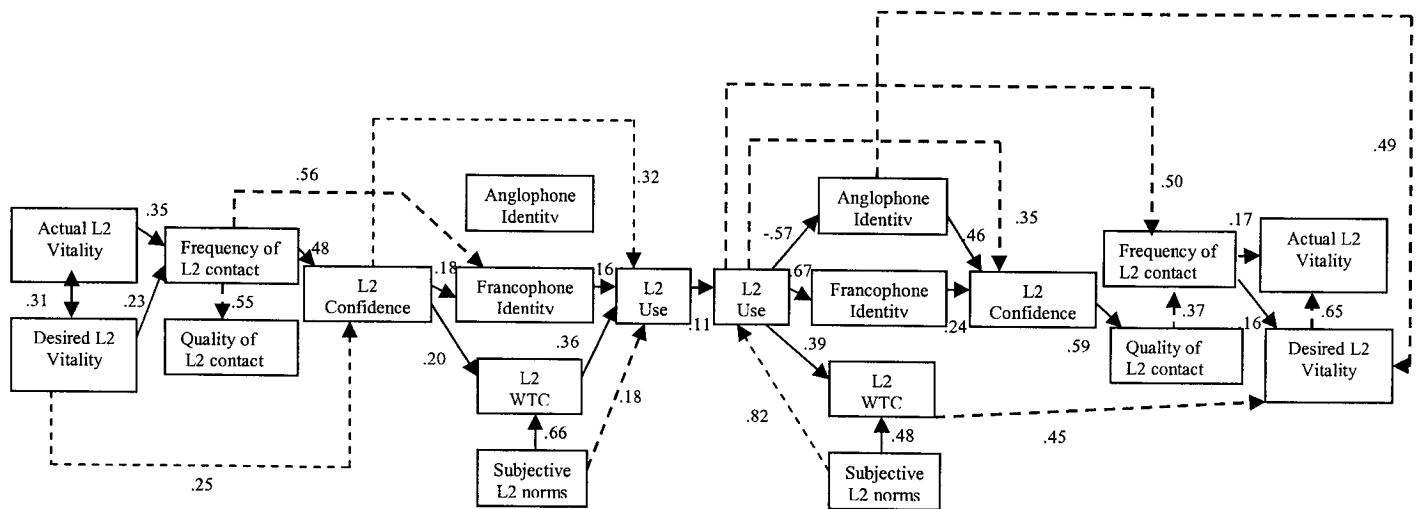
Final Longitudinal Model of Gaelic Use³⁶

³⁶ Error covariances that are included in the model are not shown for presentation purposes.

The proposed model did not initially produce an adequate goodness of fit to the data (see Table 5.1). This initial model was, therefore, rejected and post-hoc model fitting was again employed. The Wald test identified several parameters that should be dropped from the model. At time 1, the paths from actual and desired vitality to quality of contact, quality of contact to confidence, confidence to Anglophone identity and Anglophone identity to French use were all non-significant. At time 2, the paths from WTC to French confidence, French confidence to frequency of contact, and quality of contact to actual and desired vitality were non-significant. Removing these paths from the model did not significantly change the model fit, $\Delta\chi^2(3) = 4.706$, $p > .05$.

Examination of the modification indices obtained from the LM test revealed several paths that would improve the fit of the model to these data. These are depicted by dotted lines in Figure 5.3. At time 1, paths from desired vitality to confidence, frequency to quality of contact and Francophone identity, confidence to French use, and subjective norms to French use were added. At time 2, the paths from subjective norms to French use, French use to frequency of contact and confidence, WTC to desired vitality, desired vitality to actual vitality, quality of contact to frequency of contact, and from Anglophone identity to desired vitality were added. In addition to the hypothesized error covariances, there were significant correlations between the errors associated with frequency of contact and WTC at both time 1 and time 2 and language use and frequency of contact at time 2. Again, because these variables are all designed to measure language communication, it is not unusual that error correlations exist among them. The addition of the paths and error covariances significantly improved the fit of the model to the data. The CFI and RMSEA were both acceptable (see Table 5.1).

Figure 5.3

Final Longitudinal Model of French Use³⁷

³⁷ Error covariances that are included in the model are not shown for presentation purposes.

In sum, the longitudinal path models were generally inconsistent with the proposed model. The time 1 portions of the model for both French and Gaelic learners were consistent with the earlier baseline comparison. Language use at time 1 significantly determined language use at time 2 for French learners, but not Gaelic learners. Finally, the relationship between aspects of language (confidence and WTC) and identity that were absent for the time 1 portion of the model among Gaelic learners was observed in the time 2 portion of the model. Specifically, language use had a direct influence on ethnic identity and WTC, which determined language confidence. The importance of Gaelic identity to Gaelic learners was again evident in the direct paths to frequency and quality of contact in time 2.

Multigroup Invariance

The eleven paths that were identical for the French and Gaelic learners were constrained to be equal across both groups. The initial results are summarized in Table 5.2. The goodness of fit was acceptable. The LM test for releasing constraints, however, revealed that all but three constraints, depicted by broken arrows, were equal across groups (see Figure 5.4). The paths between language confidence and language use at time 1, language use and target language identity and target language identity and language confidence at time 2 were noninvariant across the two groups. Contrary to hypotheses, the path coefficients for the relationship between language confidence and language use and target language identity and language confidence were significantly higher among the Gaelic learners. Consistent with hypotheses, the path coefficient in the relationship between language use and target language identity was significantly higher among French learners. The three constraints were allowed to differ between the two models and the results are provided in Table 5.2 (final model).

Table 5.2

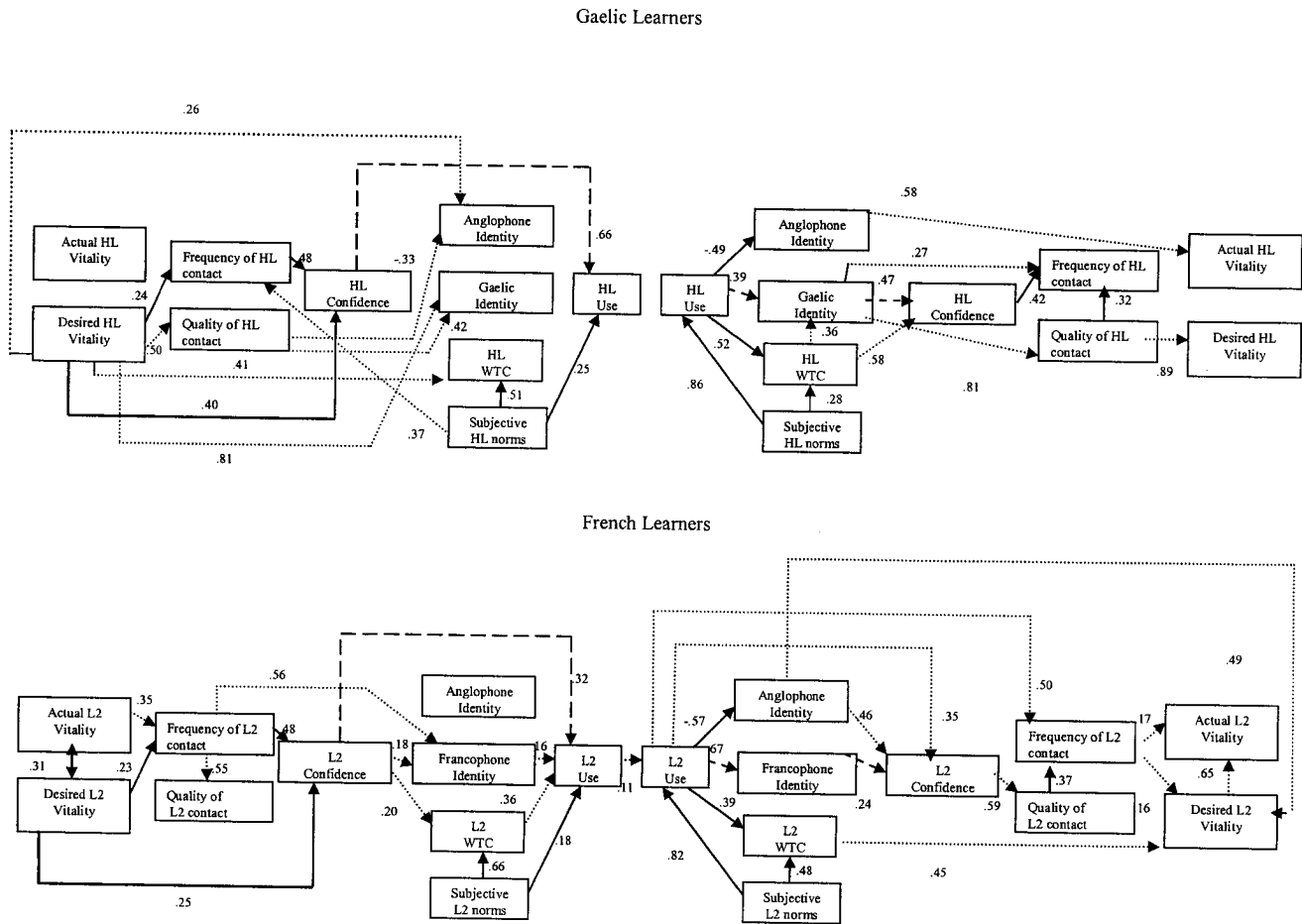
Goodness of Fit Statistics Related to Longitudinal Multigroup Invariance

Model	χ^2	df	$\Delta\chi^2$	Δdf	p	RMSEA	CFI
Invariance							
Initial	506.123	299				.06	.94
Final	498.720	291	7.403	8	ns	.06	.94

Note. χ^2 = chi-square, df = degrees of freedom, $\Delta\chi^2$ = change in chi-square, Δdf = change in degrees of freedom, RMSEA = root mean square error of approximation, CFI = comparative fit index.

Figure 5.4

Multigroup Invariance of Gaelic and French Learners over Time



Note. Common paths are depicted by solid arrows, while uncommon paths are depicted by shaded arrows. The broken arrows depict the non-invariant paths.

In sum, contrary to hypotheses, there was no significant difference in the paths from desired vitality to contact and from subjective norms to WTC between Gaelic and French learners. Instead, the significant differences were only among issues of confidence, identity and language use. Specifically, French learners rely on their use at time 2 to determine their Francophone identity. Among Gaelic learners, identity was a stronger influence on language confidence and language confidence was a more salient indicator of language use. Thus, although Gaelic learners did not evidence an identity/language relationship in time 1, the relationship between identity and language confidence is actually stronger than for French learners in time 2.

Multivariate Analysis of Variance³⁸

In order to test for the differences between Gaelic and French learners over time, three analyses were undertaken. First, a 2 x 2 repeated measures multivariate analysis of variance was performed (see Table 5.3). The between subjects factor was the type of learner (Gaelic vs. French). The repeated factor was the time of the testing (time 1 vs. time 2). The dependent variables were language confidence, frequency and quality of contact, WTC, subjective norms, and language use. At the multivariate and univariate levels there were significant effects of time of testing. The analysis also revealed a significant effect of the type of learner on the frequency and quality of contact with the target language. There was also a significant interaction between the type of learner and the time of testing for language confidence, subjective norms and language use.

³⁸ An analysis of covariance was not performed here due to the violation of the assumption of homogeneity of regression (slopes), $F(196, 1771) = 1.595, p < .001$.

Table 5.3

Effects of Target Language over Time

Source	<i>F</i>	<i>df</i>	η	<i>p</i>
Multivariate				
Time	9.83**	6,210	.22	.000
Time x Learner	4.83**	6,210	.12	.000
Univariate				
Learner				
Conf	3.28	1,215		.071
Freq	19.05**	1,215	.08	.000
Qual	36.68**	1,215	.15	.000
WTC	3.562	1,215		.060
Norms	0.39	1,215		.532
Use	3.281	1,215		.071
Time				
Conf	21.15**	1,215	.09	.000
Freq	36.49**	1,215	.15	.000
Qual	51.23**	1,215	.19	.000
WTC	19.92**	1,215	.09	.000
Norms	15.61**	1,215	.07	.000
Use	10.38**	1,215	.05	.000
Time x Learner				
Conf	10.83**	1,215	.05	.001
Freq	0.54	1,215		.465
Qual	0.18	1,215		.673
WTC	3.54	1,215		.061
Norms	6.08*	1,215	.03	.014
Use	10.32**	1,215	.05	.002

Note. * $p < .05$, ** $p < .001$. Conf=language confidence; Freq=frequency of language contact; Qual=quality of language contact; WTC=willingness to communicate; Norms=subjective norms; Use=language use.

The effects of the time of testing indicated that language confidence, frequency and quality of contact, WTC, subjective norms and use were significantly lower at time 2 than at time 1³⁹. Previous studies have also shown a decline in language learning variables over time (e.g. Cziko & Lambert, 1976; Desrochers & Gardner, 1981). The deterioration is generally attributed to the effect of completing the same measures a second time. The effect of the type of learner showed that Gaelic learners, contrary to hypotheses, experience significantly higher frequency (M=20.36) and pleasantness (M=31.98) of contact with the target group than French learners (Frequency M=15.55; Quality M=22.77). Finally, posthoc analyses of the effects of the interaction (Figure 5.5) reveal that, at time 1, French learners indicate significantly higher language confidence, subjective norms and language use than Gaelic learners⁴⁰. Contrary to hypotheses, at time 2, there are no significant differences between Gaelic and French learners.

In sum, the results suggest that, although there are substantive differences between Gaelic and French learners at time 1, the resemblance between Gaelic and French learners is stronger at time 2. Specifically, learning a heritage language is comparable to learning a second language over time in a unilingual (English) context.

The effects of learner, target language and vitality perceptions

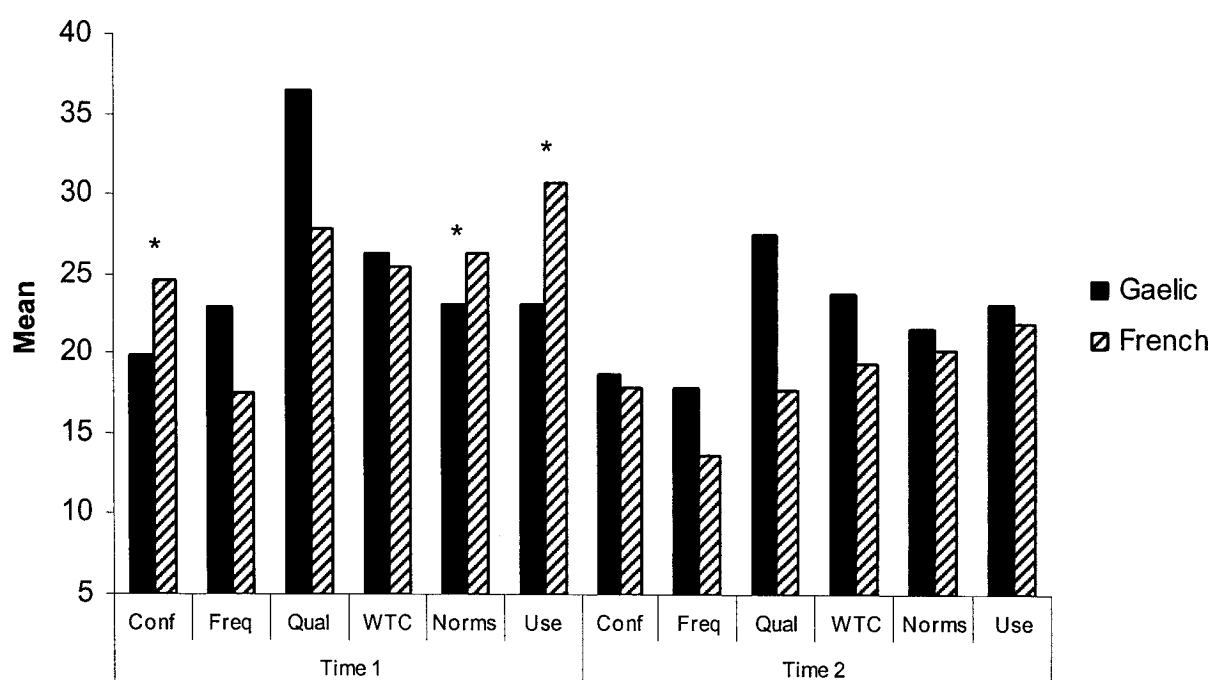
The purpose of the second analysis of means was to assess the effects of the type of learner, the target language and the type of vitality perception over time, a 2 x 2 x 2 x 3 repeated analysis of variance was performed (Table 5.4). The between-subjects factor was the type of learner (Gaelic vs. French) and the within-subjects factors were time (time 1 vs. time 2), the type of vitality perception (actual vs. desired) and the target language (English, French or Gaelic).

³⁹ Time 1-Confidence (M=22.21), Frequency of contact (M=20.20), Quality of contact (M=32.20), WTC (M=25.82), Norms (M=24.71), Use (M=26.89). Time 2- Confidence (M=18.32), Frequency of contact (M=15.70), Quality of contact (M=22.55), WTC (M=21.60), Norms (M=20.92), Use (M=22.50).

⁴⁰ Time 1-Confidence, $q(2)=5.64, p<.05$; Norms, $q(2)=3.42, p<.05$; Use, $q(2)=5.61, p<.05$.

Figure 5.5

The Effects of Learner and Time



Note. * $p < .001$.

Table 5.4

ANOVA Summary of the effects of Learner, Target Language and Vitality

Source	<i>F</i>	<i>df</i>	η	<i>p</i>
Between-Subjects				
Type of Learner	24.61**	1,215	.10	.000
Within-Subjects				
Time	107.08**	1,215	.33	.000
Vitality Type	77.13**	1,215	.26	.000
Target Language	2824.62**	2,430	.93	.000
Time x Learner	1.79	1,215		.182
Language x Learner	145.20**	2,430	.40	.000
Vitality x Learner	4.63*	1,215	.02	.033
Time x Language	22.16**	2,430	.09	.000
Time x Vitality	1.16	1,215		.283
Vitality x Language	203.28**	2,430	.49	.000
Time x Language x Learner	15.16**	2,430	.07	.000
Time x Language x Vitality	7.28**	2,430	.03	.001
Language x Vitality x Learner	245.80**	2,430	.53	.000
Time x Vitality x Learner	0.00	1,215		.987
Time x Language x Learner x Vitality	14.49**	2,430	.06	.000

Note.* $p < .05$, ** $p < .001$.

The analysis revealed a significant effect of time, target language, type of vitality perception and type of learner. The two-way interactions between target language and type of learner, between vitality and type of learner and between time and language were significant. Only the three-way interaction among time, vitality and type of learner was non-significant. Superseding these, there was a four-way interaction among time, target language, type of vitality perception and type of learner, which will be used here for interpretative purposes (Figure 5.6).

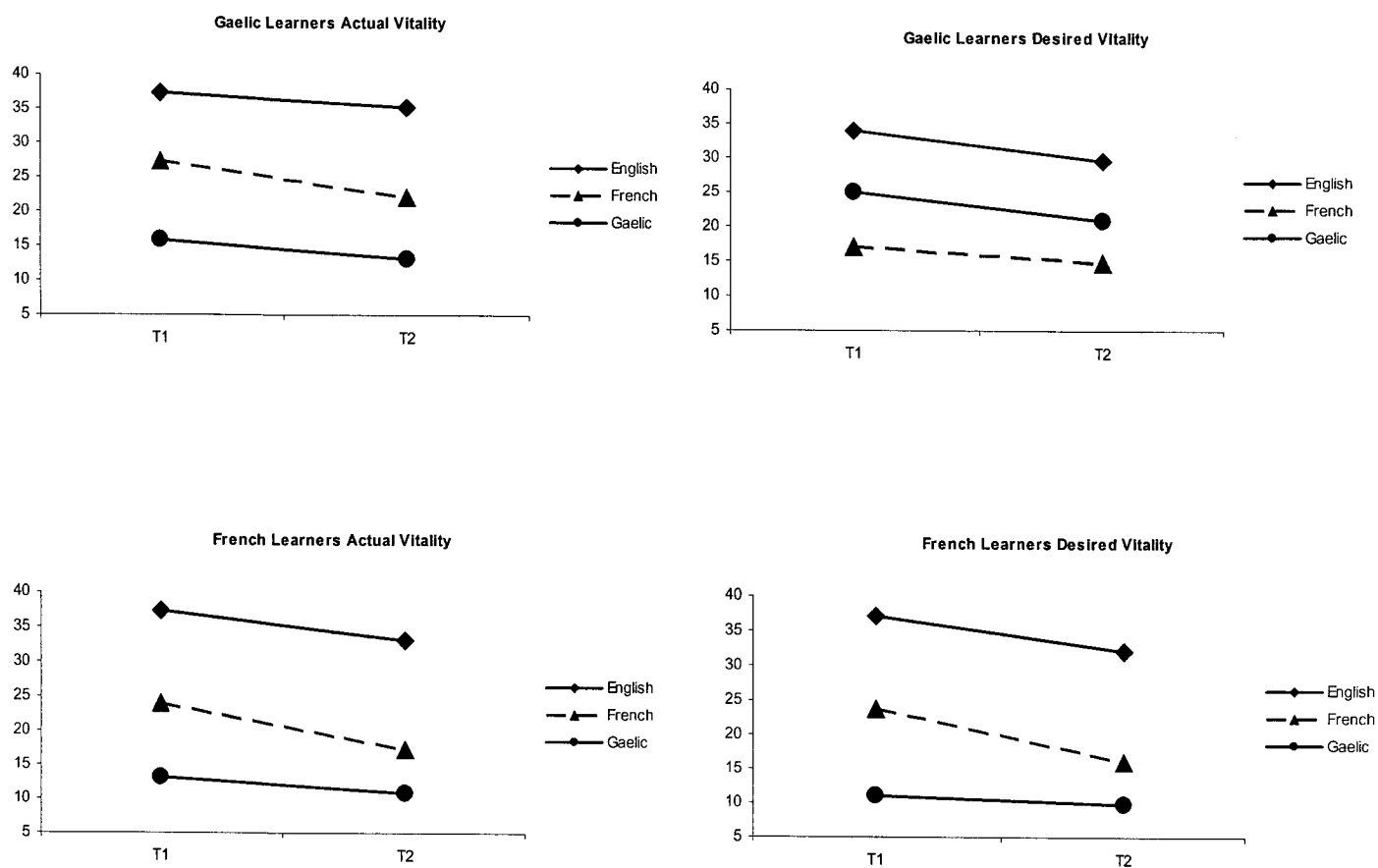
An examination of the means revealed that Gaelic learners ($M=24.34$) indicated significantly higher vitality perceptions than French learners ($M=22.14$). Over time, there was a significant decrease in vitality perceptions (Time 1 $M=25.23$, Time 2 $M=21.25$). Again, this is consistent with previous findings (Cziko & Lambert, 1976; Desrochers & Gardner, 1981). Consistent with hypotheses, actual vitality perceptions ($M=23.91$) were significantly higher than desired perceptions ($M=22.57$). Finally, also consistent with hypotheses, posthoc analysis indicated that vitality perceptions were significantly higher for English ($M=34.47$) than for French ($M=20.27$), which were significantly higher than for Gaelic ($M=14.98$).

A posthoc analysis of the effects of the four-way interaction revealed that, at time 1, there was no significant difference between the actual English vitality perceptions of Gaelic and French learners. Gaelic learners indicated significantly higher actual French and Gaelic vitality as well as desired Gaelic vitality perceptions, but significantly lower desired English and French vitality perceptions.

At time 2, Gaelic learners showed significantly higher perceptions of actual English, French and Gaelic vitality as well as desired Gaelic vitality. French learners, on the other hand, indicated significantly higher desired English and French vitality.

Figure 5.6

The Effects of Time, Target Language, Vitality and Learner



In sum, the results were generally consistent with hypotheses. Actual vitality perceptions were significantly higher than desired perceptions. Gaelic learners indicated significantly higher actual and desired Gaelic vitality. Also, French learners showed significantly higher desired French vitality. Contrary to hypotheses, there were significant differences in desired English vitality between the two groups. Also, Gaelic learners indicated significantly higher actual French vitality than French learners. The Gaelic learners may perceive French (in addition to English) as a threat to the Gaelic vitality. This may explain why they have higher actual English and French vitality perceptions. Finally, as argued earlier, the Gaelic learners appear to favour the Gaelic identity over the Anglophone identity. Perhaps this explains why Gaelic learners have a significantly lower desired English vitality than French learners.

The effects of learner and target identity

The third means analysis examined the effects of the type of learner and the target identity over time, a 2x2x2 repeated measures analysis of variance was performed (Table 5.5). The between-subjects factor was the type of learner (Gaelic vs. French) and the within-subjects factors were time (time 1 vs. time 2) and the target identity (Anglophone vs. Target language). The results indicated a significant effect of time and type of learner. The interaction between time and type of learner was not significant.

A posthoc analysis of the mean differences revealed that Anglophone and target language identity was significantly higher at time 1 (Anglophone M=33.00, Target M=24.09) than at time 2 (Anglophone M=18.62, Target M=15.06)⁴¹. French learners indicated significantly higher

⁴¹ Anglophone, Time 1 vs. Time 2, $q(2)=13.13, p<.05$. Target, Time 1 vs. Time 2, $q(2)=8.50, p<.05$.

Table 5.5

ANOVA Summary of the Effects of Learner and Target Identity

Source	<i>F</i>	<i>df</i>	η	<i>p</i>
Between-Subjects				
Type of Learner				
L1	20.24**	1,215	.09	.000
TL	74.46**	1,215	.26	.000
Within-Subjects				
Time				
L1	78.00**	1,215	.27	.000
TL	32.64**	1,215	.13	.000
Time x Target Identity				
L1	1.55	1,215		.215
TL	0.02	1,215		.889

Note. ** $p < .001$.

Anglophone identity ($M=30.84$), but significantly lower target language identity ($M=13.37$) than Gaelic learners (Anglophone $M=26.24$, Target $M=20.31$)⁴².

In sum, the results are entirely contrary to hypotheses. First, no change in Anglophone identity over time was proposed. Also, target language identity was proposed to increase in time 2. It was expected that there would be no difference in Anglophone identity between Gaelic and French learners. French learners, however, indicated higher Anglophone identity. It was also expected that French learners would have a higher target language identity. The Francophone identity of French learners, however, was significantly lower than the Gaelic identity of Gaelic learners. Again, this points to the importance of the Gaelic identity in relation to the Anglophone identity among Gaelic learners.

Chapter Summary

The goal of this chapter was to examine whether the language learning process and the influence of vitality and subjective norms vary as a function of the target language over time. The results of the three analyses show that, indeed, there are significant differences in the language learning process of French and Gaelic learners from the initial to the later stages of learning.

Among Gaelic learners, the introduction of the time 2 processes did not significantly alter the relationships previously obtained for time 1. At time 1, consistent with hypotheses, desired Gaelic vitality directly influenced frequency and quality of contact. Language confidence was determined by frequency of contact and subjective norms determined WTC. Contrary to hypotheses, desired vitality directly influenced Anglophone and Gaelic identity, language confidence and WTC. Language use was determined by language confidence and subjective

⁴² Anglophone, French vs. Gaelic, $q(2)=4.50, p<.05$, Target, French vs. Gaelic, $q(2)=8.63, p<.05$.

norms and quality of contact directly influenced Anglophone identity. At time 2, consistent with hypotheses, language use directly determined identity and WTC, which both determined language confidence. Confidence, in turn, influenced frequency of contact. The quality of contact was a precursor to desired Gaelic vitality and subjective norms directly influenced WTC. Unexpectedly, subjective norms had a direct influence on language use. Also, Gaelic identity by-passed language confidence and was a direct precursor to frequency and quality of contact. In addition to language use, WTC determined Gaelic identity. Finally, desired Gaelic vitality directly influenced actual Gaelic vitality.

Among French learners, the proposed paths from vitality to frequency of contact, frequency of contact to confidence, confidence to identity and WTC, identity and WTC to language use and from subjective norms to WTC were present in the final model at time 1. Contrary to hypotheses, desired French vitality directly influenced French confidence. Frequency of contact was a precursor to both quality of contact and Francophone identity. Language confidence and subjective norms directly influenced French use. At time 2, French language use was directly influenced by language use at time 1 as proposed. At time 2, identity and WTC were directly influenced by language use. There was also a significant path from subjective norms to WTC. Language confidence was determined by identity. Language confidence influenced quality of contact and the frequency of contact influenced both actual and desired vitality. Contrary to hypotheses, subjective norms directly influenced language use. Language use was a precursor to confidence and frequency of contact. WTC directly determined desired French vitality, which determined actual vitality. Finally, quality of contact directly influenced the frequency of contact. This path was actually reversed in time 1.

In comparing differences in the strength of the relationships common to both Gaelic and French learners, it was first determined that the paths from confidence to use at time 1 and from target language identity to confidence at time 2 were stronger among Gaelic learners. This is contrary to hypotheses and suggests that the development of confidence is initially more important to language use among Gaelic learners. Further, over time, identification to the target language group becomes more important to the development of language confidence among Gaelic learners. Consistent with hypotheses, the path coefficient for the relationship between language use and target language identity was higher among French learners at time 2, suggesting that actual use of the language is more important to the development of the target language identity for French learners than for Gaelic learners.

The results of the analyses examining differences in Gaelic and French learners over time indicate that Gaelic and French learners show an overall decrease in their confidence, vitality perceptions, contact, WTC, identity, subjective norms and language use. This is consistent with previous research and may be due to the effects of experience in completing the same measures twice (see Gardner, 1985). Consistent with hypotheses, at time 1, French learners indicated significantly higher language confidence, subjective norms and language use than Gaelic learners. Contrary to hypotheses, Gaelic learners indicated significantly higher frequency and quality of contact. At time 2, there are no significant differences between Gaelic and French learners, which also contradict expectations.

In terms of vitality perceptions, Gaelic learners indicated higher vitality perceptions than French learners, which is the opposite of the hypotheses. Inconsistent with hypotheses, but consistent with previous research is the finding that vitality perceptions decreased over time. Actual vitality perceptions were significantly higher than desired perceptions, which is what was

proposed. Further, English vitality perceptions were higher than French, which were higher than Gaelic. At time 1, there was no significant difference in the actual English vitality perceptions of Gaelic and French learners. However, desired English vitality perceptions were higher among French learners. Consistent with hypotheses, French learners indicated higher actual French vitality. Contrary to hypotheses, however, their desired French vitality was lower. The Gaelic learners did indicate significantly higher actual and desired perceptions of Gaelic vitality. At time 2, Gaelic learners indicated higher actual English, French and Gaelic vitality as well as desired Gaelic vitality perceptions. Their perceptions of desired English and French vitality, however, were lower than for French learners.

With regards to identity, Anglophone and target language identity was higher at time 1. This is contrary to expectations that there would be no change in Anglophone identity over time and that target language identity would increase. French learners indicated significantly higher Anglophone identity than Gaelic learners. It was proposed that there would be no difference in the two groups. Also contrary to hypotheses was the finding that the Francophone identity of French learners was lower than the Gaelic identity of Gaelic learners.

In sum, the results obtained in this chapter suggest that language learning is a process that varies over time and across target languages. The importance of subjective norms emerged again in both groups and this effect carries over from time 1 to time 2. There was no relationship between the time 1 and time 2 processes among Gaelic learners. It would appear, then, that earlier processes of language learning do not determine the relationships among the variables in later processes. In fact, the two processes for Gaelic learners are very different. At time 1, there is no relationship between identity and language. At time 2, however, language use is an important determinant of identity (both Anglophone and Gaelic). This resemblance to the

French learners at time 2 is reflected in the analysis of mean difference which found no significant differences in French and Gaelic learners at time 2. Finally, the results reiterate the importance of the Gaelic culture as opposed to the Anglophone culture to Gaelic learners. Desired Gaelic vitality directly influenced confidence, Anglophone and Gaelic identity and WTC at time 1 and actual vitality at time 2. Further, the Gaelic learners indicated a lower Anglophone identity, but higher target (Gaelic) identity than French learners. Taken together, these results, again, suggest that Gaelic learners forgo their Anglophone identity in favour of the Gaelic identity.

CHAPTER 6

A QUALITATIVE APPROACH

In order to classify the students into groups based on a set of specified characteristics, a K-means cluster analysis (Appendix E) available in SPSS 13.0 was performed. The goal of this analysis was to group students based on their responses to the open-ended questions. The K-means cluster analysis is useful to find a subset of 'similar' people. Prior to conducting the analysis, it was necessary to assign codes to each of the responses to the questions⁴³. For instance, when the students were asked to list the situations in which they got to speak Gaelic/French most often, their responses ranged from "in class" to "when I travel". Categorical variables, therefore, were created for each question. While there were no significant differences obtained between St. FX and UCCB students in the means analyses, the two groups were separated in this analysis to verify whether the groups differ at the qualitative level.

Cluster Analysis

The K-means cluster analysis works by constructing initial cluster centers. The analysis then puts cases into certain clusters based on distance from these cluster centers. Since K-means analysis is an iterative process, it is important to choose a number of iterations that will allow the solution to converge. The norm is about 20 iterations, which is what was chosen for these data. The researcher decides on the number of clusters that the analysis will produce. While it is important to have a sufficient number of clusters to account for all types of subjects, too many clusters could result in having only two or three subjects in a cluster. The analyses were performed for Time 1 and Time 2 separately to facilitate interpretation.

⁴³ Two judges placed the students' responses into categories for this analysis and the inter-rater reliability (kappa) was computed for each question in time 1 and time 2. The range of reliability was from 59.34% to 94%.

Time 1. The categories for Time 1 were the type of learner, school, the meaning of learning Gaelic/French in Nova Scotia, the situations in which Gaelic/French was spoken most often, the impetus behind the decision to learn Gaelic/French, the role of parents, and the Gael/Francophone contact situations that were most beneficial. Five clusters were initially chosen. The results of the analysis for Time 1 (N=217) showed that convergence was achieved after 6 iterations. Examination of the ANOVA results indicates that all the categories contributed significantly to the cluster solutions. Those variables with the largest F-values provide the greatest separation between clusters. In this case, the most beneficial contact situations and the type of learner had the highest F-values. The final cluster centers provide a summary of the characteristics of the typical case for each cluster. An examination of the final five cluster solution revealed that none of the students from UCCB had been placed into any of the clusters. The five cluster solution, therefore, was not sufficient to account for their characteristics. The analysis was conducted again with an 8 cluster solution, which appeared to be more efficient in describing the different groups of students (Appendix E). The 8 cluster solution converged after 5 iterations. There was no change in the categories that contributed the most to the distance between clusters. The cluster analysis indicated that clusters 3 and 6 were the most different, while clusters 1 and 6 were the most similar. A summary of the clusters for time 1 is provided in Table 6.1.

In order to facilitate the interpretation of the results, certain clusters were joined according to the orientations, or reasons, for language learning. In this case, four distinct orientations emerged: Job orientation, Travel orientation, Heritage orientation and Culture orientation. The job oriented students are those who are learning the language (French or Gaelic)

Table 6.1

Summary of Time 1 Cluster Analysis

Target Language	Origin	Description	% of Students
French	UCCB & St. FX	Job oriented; speak French most often in class; parents play supportive role; experience most beneficial contact at work.	36%
Gaelic & French	St. FX	Heritage oriented; speak language most often in class; parents play supportive role; experience most beneficial contact in the community.	30%
French	St. FX	Travel oriented; speak French most often with family; parents play a supportive role; experience most beneficial French contact when traveling.	20%
Gaelic	UCCB	Culturally oriented; speak Gaelic most often in class; parents play a supportive role; believe that any Gaelic contact is beneficial.	13%

in order to obtain a specific job (i.e. language teacher) or to broaden their career opportunities in general. Students who are travel oriented are learning the language in order to facilitate travel to where the language is spoken. The heritage orientation refers to the desire to learn the language in order to connect with the heritage. For example, “I wish to learn about my past, my blood, my roots”. Finally, culture orientation describes students whose desire to learn the language stems from an interest in the culture. For example, “I just thought Gaelic would be interesting”

Time 2. The categories for Time 2 were the type of learner, school, the importance of Gaelic French to the students, the students’ perceptions of the chances for the survival of Gaelic/French in Nova Scotia, the methods by which the students were going to maintain their proficiency in Gaelic/French, the strategies they employed in the class to learn Gaelic/French. Given the exploratory nature of K-means cluster analysis, eight clusters were initially chosen as this number appeared to account for all the categories in the analysis. The results of the analysis for Time 2 (N=123) showed that convergence was achieved after 4 iterations. Examination of the ANOVA results indicates that all the categories contributed significantly to the cluster solutions. The importance of Gaelic/French to the students and their perceptions of Gaelic/French survival in Nova Scotia provided the greatest separation between clusters. The final eight cluster solution appeared to be sufficient to account for all the characteristics of the students. The cluster analysis indicated that clusters 3 and 8 were the most different, while clusters 1 and 3 were the most similar. A summary of the results is presented in Table 6.2.

Four distinct orientations were evident in the clusters. As with time 1, there were the job, travel and heritage orientations. The fourth was a Friendship orientation that described students who were learning the language in order to interact with its speakers.

Table 6.2

Summary of Time 2 Cluster Analysis

Target Language	Origin	Description	% of Students
French & Gaelic	St. FX	Job oriented; believe target language will survive in NS; use studying at home as their learning strategy; intend to use the language often and take more classes to maintain proficiency.	50%
Gaelic	St. FX & UCCB	Heritage oriented; believe Gaelic will survive in NS; use listening in class as a learning strategy; use Gaelic often in order to maintain proficiency.	26%
French	St. FX	Travel oriented; believe French will not survive in NS; chose studying at home as their learning strategy; and intend to travel to maintain proficiency.	13%
French	UCCB	Friendship oriented; believe French will survive in NS; use French often as a learning strategy; and intend to speak French often to maintain proficiency.	11%

Gaelic teacher interviews⁴⁴

The primary purpose of the Gaelic teacher interviews was to gain perspective on what it is like to teach Gaelic in Nova Scotia, a place where certain aspects of the Gaelic heritage like the music and Ceilidhs are strong, but where the Gaelic language itself receives little to no recognition or support. The two teachers who participated in the interview are from different teaching environments (one from St. FX, the other from UCCB). In order to maintain the anonymity of the teachers, they will not be identified by their affiliation. It is simply important to keep in mind that the teachers are teaching in differing locations.

Given the different structure of the ‘interviews’, the analysis employed here is simply an overall comparison, first between the Gaelic teachers and then between the teachers and the students. The questions that were asked to the Gaelic teachers are listed below with the main points being pulled from their responses.

Examination of the teachers’ responses points to both similarities and differences in their perceptions of the past, present and future of Gaelic in Nova Scotia. First, when asked about the past prejudices surrounding the Gaelic language, both teachers acknowledged that Gaelic was not a popular language among the majority, even back when the majority spoke the language. The teachers also indicated that the primary threat to the Gaelic language years ago was the lack of young speakers. As for the present state of the language, the teachers admit that the lack of status of the language poses different challenges in teaching Gaelic. From one perspective, it is the lack of contact time with the students in class, which, for most learners, is the only Gaelic contact available. From the other perspective, it is the lack of students from Cape Breton, where presumably students would have a stronger Gaelic heritage. As a result, the teachers indicated

⁴⁴ In order to comply with ethical regulations concerning the anonymity of the participants, the interview transcripts will not be provided. Instead, a summary of the interviews is presented.

that the goals they set out for their students, one of which is to help them become fluent speakers, is not being met. The teachers also differed in what they perceived to be the source of their challenges. While one teacher believes the challenges are due to a lack of a good Gaelic language program, the other feels that there is a lack of urgency to save the Gaelic language. As for the future of Gaelic, the teachers both indicated that if Gaelic survives, it will greatly change. One of the teachers suggests that Gaelic will only survive if there are people to teach it.

Four questions were asked to both the Gaelic teachers and the students. The first concerned what it means for the students to be learning Gaelic in Nova Scotia. The Gaelic teachers felt that the students consider the culture important because of their ancestry and want to be attached to it and know more about it. This generally overlaps well with the students responses. Of the 61 students who answered this question, 40% said that it connects them with the culture and heritage. The second question concerning why the students are learning Gaelic generated slightly less consistency between the teachers and the students. The Gaelic teachers felt the students were learning Gaelic in Nova Scotia because they had the opportunity and the desire to converse with family and carry on the heritage, 49 students who answered this question 33.3% said that they decided to learn the language to connect with their heritage. The students, in general, said they were interested in the culture, would like to teach Gaelic, are just interested in language learning or would like to travel to Scotland. The third question that was asked to both the Gaelic teachers and the students concerned the situations in which the students speak Gaelic most often. The teachers felt that either the students did not get much opportunity for contact, or that the students spoke most often with family and friends or at festivals. Of the 64 students who responded to this question, only 2.7% of them said they spoke Gaelic at festivals. Slightly more students (4%) said they do not really get to speak Gaelic at all and a small

percentage (28%) said they spoke Gaelic most often with friends and family. Half of the students (50.7%) actually said that they only get to speak Gaelic in the classroom. Finally, the teachers were also asked to name the Gaelic speaking situations that they feel benefit the students the most. One teacher felt that the classroom situations were most beneficial, while the other felt that any opportunity to speak Gaelic is valuable. The larger portion (34%) of the 58 students who answered this question indicated that the classroom was their most beneficial Gaelic contact situation. Only 5.3% indicated that any Gaelic contact would be beneficial.

Chapter Summary

The first goal of this chapter was to explore the learning experiences of French and Gaelic learners over time. The results of the cluster analysis suggest that French learners were learning French primarily for the purpose of obtaining a job and traveling. Gaelic learners, on the other hand were more culture and heritage oriented. Overall, the students spoke the target language most often in class. The role of parents was more supportive in nature. The students chose to learn the language for their own reasons and not because of parental pressure. There were no concrete strategies for learning the language. The students indicated that they listened in class, used the language as often as possible and studied the language at home. Finally, most of the students indicated that they will either continue taking language classes or try to use the language often in order to maintain their proficiency.

The Gaelic teacher interviews revealed a less than promising outlook for Gaelic in Nova Scotia. Their comments imply that the future of Gaelic lies with the younger generation, who are not becoming fluent speakers. In essence they believe that great changes, especially to language programs, would have to take place in order for Gaelic to survive in Nova Scotia. This is inconsistent with the students' beliefs concerning the future of the Gaelic language. In general, the students believed that the status of Gaelic in Nova Scotia and the interest generated by the younger generation will help Gaelic survive.

The students and the teachers generally agreed on what learning Gaelic meant to the students and why the students were learning Gaelic. The students indicated that learning Gaelic would bring them closer to their Gaelic heritage and that they were learning Gaelic because they were interested in the culture. The teachers suggested the same reasons when asked about what learning Gaelic meant to the students. The greatest difference between students and teachers lies

in the question concerning contact with the Gaelic language. The teachers felt that the students did not get much contact with Gaelic and if they did, it was at festivals or concerts. Only a small portion of the students said they did not have much contact with Gaelic. The majority of them said they get most of their contact in class. Finally, the students agreed with one of the teachers who believed that the Gaelic contact students have in class is the most beneficial.

CHAPTER 7

SUMMARY AND DISCUSSION

The relationship between language and ethnic identity comes to the forefront, particularly when a language is at risk (Edwards, 1991). This is not unusual given that language is still considered the central channel of identity. What happens, then, to ethnic identity when a language disappears? Cummins (1989, 1991, 1993, 1998; Cummins & Danesi, 1990) has been an advocate of heritage language promotion in Canada. He argues that learning heritage languages cultivates an understanding and appreciation of one's language and cultural roots (see Cummins, 1993), but that teaching heritage languages remains a low priority compared to teaching official languages in Canada. In light of Canada's vision of multiculturalism there is, therefore, a greater need for emphasis on learning and maintaining heritage languages (Cummins, 1984).

The focus of the present study is on the learning of Gaelic, a heritage language for many in eastern Nova Scotia. At the onset of Scottish immigration to Nova Scotia the number of Gaelic speakers was estimated to be 60, 000. Today that number has dwindled to less than 500. The present state of Gaelic in Nova Scotia, therefore, is precarious and, despite a resurgence of interest among young people, its future remains tenuous. Because educational policies in Nova Scotia have not recognized Gaelic as a priority in the curriculum, young children are not taught the language in school. Otherwise, Gaelic, like other heritage languages, depends on intergenerational transmission for survival. Given that there are no monolingual Gaelic speakers left in Nova Scotia that, too, is in jeopardy. The absence of Gaelic in schools and the lack of intergenerational transmission, combined, explain why Gaelic, like many heritage languages, has undergone a shift toward, English, the dominant language. What does this mean for the Gaelic

language and identity in Nova Scotia? More generally, what are the implications for learning and maintaining a heritage language?

The purpose of the present study was to address those issues that have been largely ignored in previous heritage language research by introducing concepts and theories developed in second language research. Specifically, the present research sought to delineate the process of heritage language use, a subject that had previously received little attention. Actual language use is not only the ultimate goal of any language learner, but also a key component in the maintenance of heritage languages. The primary goal, here, was to determine how individual and context variables influence Gaelic use in Nova Scotia and heritage language use in general. To accomplish this goal, heritage language learning, like second language learning, was treated as a social psychological phenomenon that links individual differences to the social context in which learning takes place.

In order to bring to focus the fundamental processes related to heritage language use, the following discussion is divided into four sections. In the first section, using a comparative approach, the process of heritage language use is described. The second section discusses the relationship between language identity and how it relates to language shift. The third section presents the limitations of the present study and suggestions for future research. The final section contains the conclusions of the present research.

Heritage Language Use: A Comparative Perspective

Subjective ethnolinguistic vitality. In early studies, subjective ethnolinguistic vitality, as it pertains to status, demography and institutional support characteristics of a language, has been found to influence not only the decision to learn a language, but also patterns of language behaviour (Bourhis, Giles & Rosenthal, 1981; Clément, 1980; deVries, 1980). In more recent

research, Allard and Landry (1986, 1994) proposed that subjective vitality should be viewed as a belief system, whereby the general or actual beliefs about vitality, which were proposed in the early studies, constitute just one set of beliefs about the vitality of a language. They argued that another set of beliefs, those concerning goals or desires, also predict language behaviour. Specifically, Allard and Landry (1986, 1994) contended that the actual and desired beliefs about vitality, combined, are better predictors of vitality than actual beliefs alone.

In the proposed model of HL use, both actual and desired ethnolinguistic vitality were proposed as the most immediate determinants of frequency and quality of contact with the target language group. The present study, therefore, argued that ethnolinguistic vitality, viewed as a belief system, would have a direct influence on initial language behaviour. In this case, language behaviour refers to the act of seeking contact with the target language and its speakers. In the longitudinal model of HL use applied to Gaelic and French learners, on the other hand, actual and desired vitality are proposed to be outcomes of contact with the target language.

The results of the present study indicate differential effects, not only across the actual and desired facets of ethnolinguistic vitality, but, more importantly, across the four types of learners/non-learners. Among French learners and non-learners of Gaelic without a Gaelic heritage, actual and desired vitality influenced, as hypothesized, frequency of contact. Among Gaelic learners and non-learners of Gaelic with a Gaelic heritage, however, only desired vitality influenced contact. In fact, among Gaelic learners, desired vitality not only had an effect on contact, but also on language confidence, Gaelic and Anglophone identity, and WTC. The implication of these findings could be that, in a unilingual setting, where opportunity for language contact is low, desired vitality beliefs may affect these more deep-rooted aspects of the language use process. Further, in the longitudinal model, only desired vitality was an outcome of

quality of contact among Gaelic learners. Thus, although perceptions of actual vitality were significantly higher across all four types of learners/non-learners, desired vitality seemed to play a more important role in the heritage language use process. What, then, does this mean for heritage language use?

In their study of the predictive validity of the actual and desired beliefs about language vitality, Allard and Landry (1994) found that desired beliefs, which they labelled *egocentric* (referring to the self), were better predictors of language behaviour than actual beliefs, which they labelled *exocentric* (referring to non-self aspects of the environment) beliefs. The present study found a similar pattern of results. Among Gaelic learners and non-learners of Gaelic with a Gaelic heritage, language behaviour (i.e. seeking contact) seemed to be determined by egocentric beliefs and not by exocentric beliefs about language vitality. It could be argued that, when language vitality is low, beliefs that have the 'self' as subject (goals, desires, wishes) are more important than those that do not (actual/general facts). More specifically, desire beliefs need to be activated before the behaviour will emerge. The implications of this finding are positive, particularly for Gaelic learners. In the absence of high actual vitality, which is the case for Gaelic in Nova Scotia, the desires or goals concerning language vitality may compensate for negative effects brought on by the actual state of the language. Thus, it appears that actual beliefs, which do not refer to the self, may not be as important to the heritage language use process as desire beliefs, which spotlight the self. Nurturing the desire for heritage languages resources, which is clearly important to other language behaviours, could, therefore, lessen the threat to heritage languages.

Language confidence. The discussion now turns to one of the proposed language-related outcomes of vitality—language confidence. Language confidence was introduced as the central

construct in the model of L2 use (Clément et al., 2003). It was also the common element of the two models, the Social Context (Clément, 1980) and the WTC models (MacIntyre, et al., 1998) that were combined to create the model of L2 use. In the present study as well, language confidence is placed at the juncture of the model of HL use, where contact is a precursor to language confidence and WTC and identity are direct outcomes of language confidence. In the longitudinal model applied to Gaelic and French learners, language confidence is proposed to be an outcome of WTC and identity and a direct precursor of contact with the language. Thus, in both the model of HL use and the longitudinal model of HL use proposed in the present study, language confidence is presented as the mediating variable between contact and identity.

In the present results, language confidence was, as predicted, an outcome of contact and a precursor to WTC and identity among French learners. Also, as predicted, French learners indicated significantly higher language confidence than the other three groups. Among Gaelic learners and non-learners of Gaelic with a Gaelic heritage, language confidence was an outcome of contact but appeared to have no relationship to WTC or ethnic identity. For non-learners of Gaelic without a Gaelic heritage, language confidence was neither an outcome of contact nor a determinant of WTC or identity. Thus, for those who are not learning the language and have no heritage connection to it, language confidence seemed to play no role in the language use process.

The role of language confidence among the other two groups, however, is not as simple. Given that language confidence mediated the relationship between contact and WTC and identity among French learners, but not among Gaelic learners or non-learners with a Gaelic heritage, the target language may be a key predictor in the role of language confidence. Specifically, the low

vitality of the Gaelic language appeared to result in language confidence playing a lesser role in the development of identity and WTC.

These results, although tenuous, echo earlier results obtained in the context of second language use research. In their study of Anglophones and Francophones living in the same bilingual (English/French) milieu, Noels and Clément (1996) found that the vitality of the group had a direct influence on the pattern of the relationships among contact, language confidence and identity. Although the present study did not involve *groups* of differing vitalities, it did concern *languages* of differing vitalities. These results were consistent with Noels and Clément's (1996) findings that language confidence may not always be the sole precursor to ethnic identity. Together with those discussed above, they point to the importance of considering vitality in the language use process. Specifically, when language vitality is low, language confidence may not mediate the relationship between contact and ethnic identity.

Among those who are learning French, the higher vitality language, frequency of contact indirectly influenced Francophone identity through confidence. Contact, however, also bypassed language confidence and had a direct influence on Francophone identity. This finding is consistent with Kim (1988) who argued that communication variables, like language confidence, are important mediators of the effects of contact on ethnic identification. However, it is important to note that, for French learners, the direct path from contact to identity suggests that mastery of the second language may not be necessary. Contact with the second language group may be sufficient in fostering feelings of identification to that group. Thus, language confidence perhaps works to enhance the relationship between contact and ethnic identity among second language learners. For Gaelic learners, however, language confidence, although an outcome of contact, did not influence identity or WTC. Instead, identity was determined by vitality and

contact and confidence had a direct influence on language use. Thus, although language confidence enhances the relationship between contact and identity among those learning a high vitality language, it may not be necessary among those learning a low vitality heritage language.

What, then, are the implications for those learning a heritage language? The answer may lie in the illustration of the relationship between contact, confidence and identity in the longitudinal model of HL use. French learners generally evidence the proposed pattern of relationships among contact, language confidence and identity, both in the initial and later stages of language use. Gaelic learners, on the other hand, only evidence the proposed pattern in the later stages of language use. This may suggest that, for those learning a heritage language, the relationship among contact, confidence and identity only solidifies with greater use of the language. The relative similarity of the pattern of relationships among contact, confidence and identity between the Gaelic and French learners in the later stages of language use suggests that the initial influence of language vitality diminishes over time. It further implies that, when a heritage language like Gaelic is threatened, language learners take immediate action to reverse the threat. Thus, Gaelic confidence leads directly to Gaelic use, by-passing ethnic identity. Heritage language learners, therefore, may initially rely on more external representations of their language behaviour (language use) than on more internal ones (ethnic identity) in their attempts to maintain the language. Specifically, the imminent loss of heritage languages generates a delay in the internalization of the language (i.e. ethnic identity) in favour of heritage language use, which may be seen as more important to heritage language survival.

Ethnic identity. An immediate outcome of language confidence that was proposed in the present study was ethnic identity. The initial model of HL use proposed that identification to the first language group (Anglophone) and to the target language group (Gael/Francophone) is the

most immediate determinant of language use. In the longitudinal model applied to Gaelic and French learners, ethnic identity was presented as a direct precursor of language confidence in the later stages of the language use process. Thus, ethnic identity was proposed to be not only important to the initial use of the language, but also to the development of language confidence later on.

As hypothesized, ethnic identity had a direct influence on language use among French learners and non-learners of Gaelic without a Gaelic heritage. Among Gaelic learners and non-learners with a Gaelic heritage, however, ethnic identity played no significant role in Gaelic use. Given that Gaelic is part of their heritage, ethnic identity may not, initially, play a role in the use of the Gaelic language. This may be particularly true for Gaelic learners who, even in the early stages of learning, indicated significantly higher Gaelic identity and significantly lower Anglophone identity than the other three groups. The non-learners of Gaelic with a Gaelic heritage may not have evidenced the same pattern of identification because they are not learning the language. They, nevertheless, disassociate ethnic identity from Gaelic use. Following the preceding discussion of language confidence, it appears that, in the initial stages of learning, ethnic identity is not relevant to heritage language use.

Examining the effects of language use over time among Gaelic and French learners reveals, however, that heritage language learning comes, over time, to resemble second language learning. For both Gaelic and French learners, greater contact with the language (i.e. use) has a direct influence on ethnic identity. Specifically, language use resulted in an increase in target language (Gael/Francophone) identity and a lessening of Anglophone identity. Thus, when contact through language use becomes more likely, the language learners appear to feel more

like members of the target language group and less like members of their own Anglophone group.

This pattern of results is generally consistent with the construction of situated ethnic identity (Clément & Noels, 1992). The situated approach to ethnic identity would suggest that ethnic identity is negotiated through communication with others. This negotiation is usually represented through language behaviour. Low vitality groups are expected to accommodate to higher vitality groups through an erosion of their first language identity (see Noels & Clément, 1996). The results of the present study, however, suggest that this tendency is not present only among low vitality groups. The Gaelic and French learners, all members of a high vitality Anglophone group, show an erosion of their Anglophone identity as a result of greater target language use. Given that the Gaelic and French learners are part of the Anglophone majority, the erosion of the first language identity is likely not an indication of the loss of the first language, but rather an indication of their commitment to learning the target language. Heritage language learning, therefore, is similar to second language learning in that it entails taking on characteristics, other than language, of the culture. Specifically, although heritage language use may not initially depend on ethnic identification, greater language use determines the further internalization of the language (i.e. identity), which is important to heritage language behaviour.

Subjective norms. In addition to aspects of vitality, subjective norms were presented as a contextual variable that would have an influence on the language use process. The presence of language norms appeared to have influenced the ethnic identity negotiation process. When groups of differing vitalities come into contact, situational norms favour the higher vitality group. However, linguistic make-up of the present context (i.e. predominantly English-speaking) permitted the Gaelic and French learners to dispense with part of their Anglophone

identity and to take on part of the target language identity. In terms of situated ethnic identity, therefore, the usual cues concerning identity negotiation are not present in unilingual contexts. The language learners in the present study are not bound to the customary identity negotiations that occur in bilingual contexts. The normative characteristics of the situation, therefore, may have a more important role for other language behaviours.

The present study took two approaches to investigating the effect of subjective norms of the language use process. First, it was proposed that subjective norms, particularly from parents would influence the decision to learn the language among Gaelic and French learners. Second, it was argued that subjective norms, which, in addition to parents, included important others, would have a direct influence on the intention to initiate communication in the target language (WTC), both in the early stages of language use and the later stages among Gaelic and French learners. Thus, subjective norms were presented as direct precursors of certain language behaviours.

Gaelic and French learners both indicated that the decision to learn the language was their own and that their parents only played a supportive role in that decision. Gardner (1985) contends that this passive role is ideal for language learning because parents' general attitudes concerning language and culture are more easily retained by children. Thus, a supportive environment provides the best opportunities for meeting language learning goals. Through the investigation of the influence of subjective norms on WTC, it was found that norms, for all four types of learners/non-learners, had a significant direct influence on WTC as predicted. The influence of subjective norms on WTC was also present in the later stages of learning among Gaelic and French learners. Also, French learners indicated the highest perceived normative pressure to use French, as predicted. Contrary to expectations, however, subjective norms

directly influenced language use among all four types of learners/non-learners. This effect was present in the later stages of learning for the Gaelic and French learners as well, a finding which would suggest that WTC is not the sole precursor to language use.

The implication of these results could be that the internalization of the language through identity and the willingness to communicate are not necessary for language use. Specifically, the mere existence of pressure to use the language may be sufficient to provoke that behaviour. In another context, Gardner's (1985) socio-educational model proposed that a truly motivated individual will possess motivational intensity, a desire to learn the language and positive attitudes toward the act of learning the language. In those bilingual contexts, the presence of the other group may be sufficient in promoting all three of these components. In unilingual situations, where opportunity for contact with the language is low, however, these three components may be derived from the support of significant others. A willingness to use the language, although not necessary, enhances this effect. The fact that Gaelic and French learners do not differ in their perceptions of normative pressure in the later stages of language learning suggests that they may be similarly dependent on subjective norms over time. This would imply that they perceive equal pressure to use the target language. Subjective norms, therefore, attenuate the influence of low language contact on language use for both second and heritage language learners. They also eliminate the need to choose to communicate in the target language. Subjective norms do not influence the decision to learn the language, but they are important to the process of language use, particularly when the context makes language use difficult. They may, therefore, be the key to predicting language behaviour, particularly when the language is threatened. Thus, heritage languages could possibly thrive in situations where there is a perceived obligation to use them as a medium for communication.

In sum, the application of the model of HL use in the present study demonstrates that there may be two important contextual influences on the heritage language use process. First, perceptions of heritage language vitality, particularly those connected to language goals, have a direct influence on the heritage language use process. Specifically, desired vitality beliefs directly determine contact, language confidence, ethnic identity and WTC. Second, subjective norms have both a direct and indirect influence on language use. That is, when the students perceive normative pressure to use the language, language use is more likely. Thus, in the heritage language use process, vitality and norms, the two variables implicated in language shift, are formative antecedents. It is important, therefore, to consider both variables simultaneously when determining the likelihood of heritage language retention.

The Language Shift

A premise of the present research was that when the loss of the heritage language is imminent, there are negative consequences for feelings of belonging to the heritage language group. Specifically, the threat to Gaelic language would inevitably also endanger Gaelic identity. Taken together, the results outlined in the comparative analysis above suggest that, among Gaelic learners, there is an initial separation of language and identity. Are Gaelic learners, then, compensating for the loss of the Gaelic language?

Edwards & Chisholm (1987; Edwards, 1991) have argued that groups who have experienced a language shift still maintain their sense of ethnic identity and minimize the importance of the language for the purpose of communication. Edwards (1991) found that, despite the disappearance of the Gaelic language, many in Nova Scotia place great value on their Gaelic identity. He further points out that very few in Nova Scotia consider the Gaelic language to be a central pillar of Gaelic identity. In a qualitative analysis, speaking Gaelic was never

included among the reasons for learning Gaelic among Gaelic learners. Rather, the importance of the Gaelic heritage and culture were stressed. Specifically, his findings demonstrate a phenomenon that occurs in many contexts where a language is at risk. A partition is built between the symbolic and the communicative aspects of the language where the symbolic aspects become more pivotal to ethnic identity. Thus, in the presence of language shift, a sense of belonging to a particular group is sufficient to help maintain ethnic identity. This perhaps explains how the Gaelic identity has remained strong in Nova Scotia despite the continuing decline of the Gaelic language.

The model of HL use applied to the Gaelic learners in the present study proposed that perceptions of vitality would directly determine the extent and quality of contact with Gaels and the Gaelic language. Contact, in turn, would directly influence Gaelic confidence, which would determine ethnic identity, WTC and ultimately Gaelic use. The final model of HL use among the Gaelic learners, however, was not consistent with the proposed model. Desired Gaelic vitality directly influenced not only contact with Gaels and the Gaelic language, but also Gaelic language confidence. Gaelic language confidence had no influence on WTC or ethnic identity. Rather, confidence by-passed WTC and ethnic identity to directly determine Gaelic use. Thus, there was no direct relationship between language aspects (language confidence, WTC, language use) and ethnic (Anglophone and Gaelic) identity. This is, perhaps, a quantitative illustration of the phenomenon described by Edwards (1991) where a sense of belonging to the group (i.e. ethnic identity) does not necessarily relate to language.

The Gaelic learners in the present study, although they are part of the Anglophone majority group, appear to behave similarly to minority group members who experience a threat to their language and culture. Anderson and Frideres (1981), in their study of non-official

languages, demonstrated that maintenance of the language signifies maintenance of group identity, but that maintenance of group identity does not necessarily signify maintenance of the language. This suggests that minority group members are able to carry on their ethnic identity even after the language is gone. Heritage languages, therefore, may prosper with respect to cultural markers like ethnic identity, but deteriorate with respect to those like language use.

The evidence reported here appears to support Edwards' (1985) contention that language and identity are not always strongly linked. This is especially true in contexts where there is little opportunity for contact with members of the target language group. The Gaelic learners in the present study do not have many opportunities for contact with Gaels or the Gaelic language. For them, ethnic identity and language may not be closely tied. Their support of the Gaelic language, therefore, may be, as Edwards (1991) suggests, a more symbolic one. This has important implications for the survival of heritage languages. In favouring the maintenance of the heritage language identity over the maintenance of the language, are heritage language learners inadvertently contributing to the extinction of the heritage language? Given that most heritage languages do experience a shift to the dominant language, it would appear that this may be the case. It is not known what impact a continued loss of the heritage language could have on the heritage identity, but, given the strong ties between the two, it is likely that the heritage identity would eventually be threatened as well. Only identification to the heritage culture and use of the heritage language could ensure that heritage languages would have some chance for survival.

Limitations and Directions for Future Research

Recommendations for future research result from the limitations of the present study. First, the small sample size of the present study did not afford the opportunity to test a full

structural model of the language use process. This would have allowed for an investigation of the relationship among the variables at both the structural and measurement levels. Further, full structural models are more appropriate than path analyses in the analysis of true change in longitudinal research. Second, the final model of HL use among Gaelic learners was clearly different from the proposed model of HL use. Unfortunately, this means that the findings of the present study are tenuous in nature. To determine whether the results of the present study were due specifically to the heritage language use process, future research would need to replicate the present study, ideally within a larger sample. Third, the model of HL use was applied in a particular context that was dominated by English. It is also possible that, due to its unique social context, the findings of the present study would not generalize to other contexts. Although the goal of the present study was to specifically investigate Gaelic in Nova Scotia, future research would need to apply the model of HL use in other contexts to develop a more general theory. Finally, the present study examined Gaelic and French learners at two points in time, at the beginning and end of the language course. Although this provides insight into the effects of language use over time and points to the changing relationship between language and identity, it does not provide a full illustration of the effects of continued language loss on ethnic identity. According to Edwards (1985), groups tend to maintain their identity in the face of language shift, but research has not yet investigated the very long-term effects of language loss on identity pattern. Such research would provide a more comprehensive understanding of the complex identity/language relationship.

Conclusions

While acknowledging the above limitations, this research supports important conclusions regarding heritage languages, in general and Gaelic in particular. The survival of a heritage

language depends on the understanding of the complex processes underlying its development and maintenance. The findings of the present study support the argument that heritage language learning appears, initially, to be a unique process that differs from that of learning a second language in the same linguistic context. Specifically, the findings offer some support for the argument that, when languages are threatened by language shift, ethnic identity remains, but the language becomes mostly symbolic (Andersen & Frideres, 1981; Edwards & Chisholm, 1987). Perhaps in the face of language shift, heritage language learners must choose between their identity and their language. Thus, those who choose to retain both identity and language contribute to the maintenance of the heritage language, while those who cling to their identity allow the language shift to occur. What, then, does this mean for the survival of heritage languages?

The present study investigated the effects on identity, contact and vitality, of language use over time, issues not previously addressed. Inconsistent with hypotheses, a two-step process emerged of the results. Heritage language learners, although separating identity and language in the early stages of learning, may begin to merge the two in the later stages. Specifically, heritage language use may directly influence identification to both the first and heritage language identities. Depending on the context and the status of the heritage language learner, heritage language use could result in a decrease in identification to the first language group and an increase in identification with the heritage language group. Thus, with greater use of the heritage language, the first and heritage language identities seem to undergo a transformation in the direction that favours the heritage identity. How, then, do we encourage heritage language use?

Parents were merely supportive figures in the desire to learn the heritage language, but they, along with important others, played a direct role in heritage language use. Specifically, the

belief that important others want the learners to use the language was sufficient in determining the choice to communicate and the actual use of the language. While tentative, this effect was even evidenced over time. Parents and supportive others may, therefore, serve as a valuable source of motivation when the vitality of the language is low. This may be particularly true for heritage language learners who are learning the language of their ancestors. Thus, learning a heritage language may inherently entail certain normative pressures, which are valuable to language use and ethnic identity, the vital aspects in heritage language survival.

Turning to the focus of the present study, one remaining question is: what does the future hold for Gaelic in Nova Scotia? The qualitative analysis which addressed this question to both learners and teachers of Gaelic brought conflicting insights into this query. While students believed that Gaelic would survive in Nova Scotia, teachers of the language proposed a much more negative prognosis for Gaelic. It is important to note that the Gaelic identity of the present learners was strong despite the initial lack of relationship between language and identity. So, in situations where the language has more symbolic meaning, the Gaelic identity is already present. However, over time, Gaelic language use further increases Gaelic identity. The reality that the language appears to supplement the already high Gaelic identity speaks to continued efforts to revive the Gaelic language in Nova Scotia.

CHAPTER 8

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APPENDIX A
TIME 1 QUESTIONNAIRE
GAELIC LEARNERS⁴⁵

⁴⁵ The questionnaire presented to the non-learners of Gaelic was identical to that of the Gaelic learners with the exception of the open-ended questions. These were not included in the questionnaires presented to the non-learners of Gaelic.

The following section contains a number of statements with which some people agree and others disagree. Please rate how much you personally agree or disagree with these statements---how much they reflect how you feel or think personally. Use the following scale:

- 1=Do not agree at all
 2=agree a little
 3=moderately agree
 4=agree to a large extent
 5=strongly agree

For each statement, write in the left margin with the number corresponding to the degree of your agreement or disagreement. There is no right or wrong answer. All that is important is that you indicate your personal feeling.

- ____ 1. I would feel confident and relaxed if I had to ask for directions in Gaelic.
- ____ 2. I really believe that I am capable of reading and understanding most texts in Gaelic.
- ____ 3. In my opinion, I know enough Gaelic to be able to write comfortably.
- ____ 4. Personally, I believe that I know enough Gaelic to speak correctly.
- ____ 5. I am very confident in my ability to write Gaelic correctly.
- ____ 6. I feel that I can understand someone speaking Gaelic quite well.
- ____ 7. If I met a Gaelic-speaking person and I had to speak with him/her in Gaelic, I would feel relaxed.
- ____ 8. I feel uneasy whenever I speak Gaelic.
- ____ 9. I get shy speaking Gaelic with a superior.

Learning about the Gaelic language and/or the Gaelic culture is important to me...

- ____ 10. because I may need it later on for job/studies.
- ____ 11. because it is expected of me.
- ____ 12. so that I can broaden my outlook.
- ____ 13. because I would like to learn as many foreign languages as possible.
- ____ 14. because I would like to spend some time abroad.
- ____ 15. because I would like to travel to countries where Gaelic is used.
- ____ 16. because I would like to make friends with foreigners.

- ____ 17. so that I can keep in touch with foreign friends and acquaintances.
- ____ 18. because it will enable me to learn more about the Gaelic world.
- ____ 19. because it will enable me to get to know various cultures and peoples.
- ____ 20. in order to get to know the life of the Gaelic-speakers.
- ____ 21. in order to better understand the Gaelic-speakers' behaviours and problems.

Part 1: The present resources of Anglophones, Francophones and Gaels in this region.

The statements in this section pertain to the resources to which the Anglophones and Francophones of this region have access at the present time. Please note that you are not to concern yourself with the resources which should be available but only those which are available now.

For each of the following sentences, you are to encircle the number from 1 to 9 which in your estimation best describes the resources presently available to the Anglophones and Francophones of this region. The same response given to both groups signifies that you consider both groups to be similar on this dimension.

1. In this region, TV programs broadcasted

In English are....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

In French are.....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

In Gaelic are.....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

2. How much importance do this region's school boards give to the teaching of languages, that is,

The teaching of English to Anglophones?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

The teaching of French to Francophones?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

The teaching of Gaelic to Gaels?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

3. In this region, the language of work is

English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

4. In this region, the degree to which businesses and industries are controlled

By Anglophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Francophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Gaels is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

5. In this region, how many of the provincial government services are offered

In English?

1	2	3	4	5
None	Few	Approximately half	most	all

In French?

1	2	3	4	5
None	Few	Approximately half	most	all

In Gaelic?

1	2	3	4	5
None	Few	Approximately half	most	all

6. In this region, to what degree are linguistic rights respected (the right to speak and to be addressed in one's mother tongue)

Where Anglophones are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

Where Francophones are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

Where Gaels are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

7. The persons moving from elsewhere to settle in this region

Use English

1	2	3	4	5
Never	rarely	from time to time	often	always

Use French

1	2	3	4	5
Never	rarely	from time to time	often	always

Use Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. This region is a territory whose

English cultural and linguistic character is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely strong

French cultural and linguistic character is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely strong

Gaelic cultural and linguistic character is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely strong

Part 2: What I want to do or be able to do in this region

The following statements refer to goals, wishes or desires. Your goals, wishes or desires are very personal thoughts which indicate what you want to do; each person has different goals, wishes or desires.

You are invited to respond to the following statements after having carefully considered what you want to do or be able to do with respect to the situations presented below.

Encircle the number on the scale of 1 to 9 which in your estimation best describes your goals, wishes and desires.

1. I want to watch TV programs broadcasted

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

2. Overall, in my activities at school, I want to communicate

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

3. In the jobs I will have in the future, I want to use as the language of work

English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

4. In my future jobs, I want my bosses or employers to communicate with me

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

5. In my contacts with various governmental services (municipal, provincial or federal), I want to communicate

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

6. In order to protect my linguistic rights, I want people who provide public services (clerks, waiters) to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

7. If adolescents or young adults speaking neither English nor French moved to this region, I would eventually want them to communicate with me

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

8. The region in which I would most want to reside would have an

English cultural and linguistic character which is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

French cultural and linguistic character which is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely
------------------------	-----------	---------------	-------------	----------------

Gaelic cultural and linguistic character which is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely
------------------------	-----------	---------------	-------------	----------------

Directions: Please evaluate the following aspects by circling the one that best describes you:

1. I read Gaelic...

<u>(1)</u> not	:	<u>(2)</u> a	:	<u>(3)</u> well	:	<u>(4)</u> considerably	:	<u>(5)</u> fluently
-------------------	---	-----------------	---	--------------------	---	----------------------------	---	------------------------

at all little well

2. I understand Gaelic...

(1) : (2) : (3) : (4) : (5)
not a well considerably fluently
at all little well

3. I write Gaelic...

(1) : (2) : (3) : (4) : (5)
not a well considerably fluently
at all little well

4. I speak Gaelic...

(1) : (2) : (3) : (4) : (5)
not a well considerably fluently
at all little well

Directions: We are interested in the type and amount of contact you experience with Gaels/Gaelic. Put a "X" in the place that best describes you.

1. In my family

Not at all frequent _____ _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ _____ Extremely pleasant

2. In my neighbourhood

Not at all frequent _____ _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ _____ Extremely pleasant

3. Among my friends

Not at all frequent _____ _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ _____ Extremely pleasant

4. Among the students with whom I have regular contact

Not at all frequent _____ _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ _____ Extremely pleasant

5. On the radio

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

6. In books

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

7. In social activities (festivals, concerts)

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

8. in the community

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

Directions: Below are 12 situations in which a person might choose to communicate or not to communicate. Presume you have completely free choice. Indicate when you would choose to start a conversation in each type of situation in Gaelic.

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic:

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance while standing in line.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend while standing in line.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger while standing in line.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.

_____ 12. Present a talk to a group of acquaintances.

The purpose of the next section of the questionnaire is to examine interpersonal relations and ethnic identity by asking your opinions regarding different types of interactions. Several researchers agree that an individual's identity may change depending upon the situation that he/she is in. For example, in some situations you could identify yourself as an Anglophone, in other situations as a Gael, whereas in others you may not identify with either of these two groups.

On the pages which follow, you will find several situations. In each case, evaluate your level of identification to each of the two groups. For example, in one situation, you may identify yourself as very "Anglophone", and not at all "Gaelic". In this case you would mark the extreme ends of the scale in the following manner.

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

In other situations you may not identify with either of these two groups: that is, your language group identity may not be important in this situation. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

In other situations, you may identify with both groups at the same time. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

In still other situations, you may feel a little "Anglophone" and a little "Gaelic". Each scale, therefore, can be used independently of the other. That is, if you feel slightly "Anglophone" you can **also** feel slightly "Gaelic".

It is important that you remember that the language used in a situation is not necessarily an index of identity. For example, in one situation, you could speak Gaelic but feel very "Anglophone" or you could speak English but not identify yourself at all as a member of a language group. We ask you to give

your first impression of yourself, as you are, without reference to who you would like to be or who you would have liked to have been. There are no right or wrong answers.

1. When I listen to music, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

2. When I read for pleasure, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

3. When I think about my life's goals, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

4. When I participate in cultural activities, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

5. When I prepare food, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

6. When I write my assignments, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

7. When I am at home, I feel...

Not at all
Anglophone (1) (2) (3) (4) (5) Very
Anglophone

Not at all
Gaelic (1) (2) (3) (4) (5) Very
Gaelic

8. When I travel, I feel...

Not at all
Anglophone (1) (2) (3) (4) (5) Very
Anglophone

Not at all
Gaelic (1) (2) (3) (4) (5) Very
Gaelic

Directions: The purpose of the following 12 items is to determine how you think important people in your life (your family or friends) view your usage of Gaelic across different situations. Using the scale provided, please choose the probability appropriate to you. For example, if you think that it is likely that the important people in your life think you should communicate in Gaelic in that particular situation, you would choose "5" for very probable.

In my opinion, the majority of persons who are important to me think that I should communicate in Gaelic in the following situations:

1	2	3	4	5
Not	Somewhat	Moderately	Rather	Very
Probable	Probable	Probable	Probable	Probable

_____ 1. Present a talk to a group of strangers

_____ 2. Talk to an acquaintance

_____ 3. Talk to a large group of friends

_____ 4. Talk to a small group of strangers

_____ 5. Talk to a friend

_____ 6. Talk in a large meeting of acquaintances

_____ 7. Talk with a stranger

_____ 8. Present a talk to a group of friends

_____ 9. Talk in a small group of acquaintances

_____ 10. Talk in a large meeting of strangers

_____ 11. Talk in a small group of friends

_____ 12. Present a talk to a group of acquaintances

Directions: Below are 12 situations in which you might need to communicate. In this case, we would like you to indicate HOW OFTEN you have done each of them in Gaelic.

- 1 = Never
- 2 = once or twice
- 3 = a few times
- 4 = occasionally
- 5 = often
- 6 = frequently
- 7 = many, many times

In Gaelic

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

Please take a moment to briefly answer the following four questions pertaining to your Gaelic learning experience.

- 1. What does it mean to you to be learning Gaelic in Nova Scotia?

2. In which situation(s) do you get to speak Gaelic the most often?

3. Can you think about what has brought you to the decision to learn Gaelic and describe the role (if any) that your parents or other family members have played in that decision?

4. Think about all the different situations in which you have contact with Gaels or the Gaelic language. Which one(s) do you feel were most beneficial to you?

General Information:

1. Age: _____ years
2. Gender: Male _____ Female _____
3. Are you currently enrolled in a Gaelic language class? Yes _____ No _____, if yes, is it your first?
Yes _____ No _____
4. Do you speak a language other than English or Gaelic? Yes _____ No _____, If yes, please specify

5. What is your first language? _____
6. Does your mother speak Gaelic? Yes _____ No _____
7. Does your father speak Gaelic? Yes _____ No _____
8. Does anyone else in your family (grandparents, aunts, uncles, cousins, siblings) speak Gaelic?
Yes _____ No _____
9. Do you have a Gaelic background? Yes _____ No _____ Not sure _____
10. Were you born on Cape Breton Island? Yes _____ No _____, If yes, how long have you lived in
Cape Breton? _____ years. If no, where were you born?
11. Do you think Gaelic is sufficiently represented in the media (radio, TV, books)? Yes _____ No

12. In what program are you currently enrolled? _____

APPENDIX B
TIME 1 QUESTIONNAIRE
FRENCH LEARNERS

The following section contains a number of statements with which some people agree and others disagree. Please rate how much you personally agree or disagree with these statements—how much they reflect how you feel or think personally. Use the following scale:

- 1=Do not agree at all
- 2=agree a little
- 3=moderately agree
- 4=agree to a large extent
- 5=strongly agree

For each statement, write in the left margin with the number corresponding to the degree of your agreement or disagreement. There is no right or wrong answer. All that is important is that you indicate your personal feeling.

- ____ 1. I would feel confident and relaxed if I had to ask for directions in French.
- ____ 2. I really believe that I am capable of reading and understanding most texts in French.
- ____ 3. In my opinion, I know enough French to be able to write comfortably.
- ____ 4. Personally, I believe that I know enough French to speak correctly.
- ____ 5. I am very confident in my ability to write French correctly.
- ____ 6. I feel that I can understand someone speaking French quite well.
- ____ 7. If I met a French-speaking person and I had to speak with him/her in French, I would feel relaxed.
- ____ 8. I feel uneasy whenever I speak French.
- ____ 9. I get shy speaking French with a superior.

Learning about the French language and/or the French culture is important to me...

- ____ 10. because I may need it later on for job/studies.
- ____ 11. because it is expected of me.
- ____ 12. so that I can broaden my outlook.
- ____ 13. because I would like to learn as many foreign languages as possible.
- ____ 14. because I would like to spend some time abroad.
- ____ 15. because I would like to travel to countries where French is used.
- ____ 16. because I would like to make friends with foreigners.

- ____ 17. so that I can keep in touch with foreign friends and acquaintances.
- ____ 18. because it will enable me to learn more about the French world.
- ____ 19. because it will enable me to get to know various cultures and peoples.
- ____ 20. in order to get to know the life of the French-speakers.
- ____ 21. in order to better understand the French-speakers' behaviors and problems.

Part 1: The present resources of Anglophones, Francophones and Gaels in this region.

The statements in this section pertain to the resources to which the Anglophones and Francophones of this region have access at the present time. Please note that you are not to concern yourself with the resources which should be available but only those which are available now.

For each of the following sentences, you are to encircle the number from 1 to 9 which in your estimation best describes the resources presently available to the Anglophones and Francophones of this region. The same response given to both groups signifies that you consider both groups to be similar on this dimension.

1. In this region, TV programs broadcasted

In English are....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

In French are.....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

In Gaelic are.....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

2. How much importance do this region's school boards give to the teaching of languages, that is,

The teaching of English to Anglophones?

1	2	3	4	5
No	Little	Moderate	much	Great
importance	importance	importance	importance	importance

The teaching of French to Francophones?

1	2	3	4	5
No	Little	Moderate	much	Great
importance	importance	importance	importance	importance

The teaching of Gaelic to Gaels?

1	2	3	4	5
No	Little	Moderate	much	Great
importance	importance	importance	importance	importance

3. In this region, the language of work is

English

1	2	3	4	5
Never	rarely	from time to time	often	always

French

1	2	3	4	5
Never	rarely	from time to time	often	always

Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

4. In this region, the degree to which businesses and industries are controlled

By Anglophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Francophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Gaels is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

5. In this region, how many of the provincial government services are offered

In English?

1	2	3	4	5
None	Few	Approximately half	most	all

In French?

1	2	3	4	5
None	Few	Approximately half	most	all

In Gaelic?

1	2	3	4	5
None	Few	Approximately half	most	all

6. In this region, to what degree are linguistic rights respected (the right to speak and to be addresses in one's mother tongue)

Where Anglophones are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

Where Francophones are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

Where Gaels are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

7. The persons moving from elsewhere to settle in this region

Use English

1	2	3	4	5
Never	rarely	from time to time	often	always

Use French

1	2	3	4	5
Never	rarely	from time to time	often	always

Use Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. This region is a territory whose

English cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

French cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

Gaelic cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

Part 2: What I want to do or be able to do in this region

The following statements refer to goals, wishes or desires. Your goals, wishes or desires are very personal thoughts which indicate what you want to do; each person has different goals, wishes or desires.

You are invited to respond to the following statements after having carefully considered what you want to do or be able to do with respect to the situations presented below.

Encircle the number on the scale of 1 to 9 which in your estimation best describes your goals, wishes and desires.

1. I want to watch TV programs broadcasted

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

2. Overall, in my activities at school, I want to communicate

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

3. In the jobs I will have in the future, I want to use as the language of work

English

1	2	3	4	5
Never	rarely	from time to time	often	always

French

1	2	3	4	5
Never	rarely	from time to time	often	always

Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

4. In my future jobs, I want my bosses or employers to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

5. In my contacts with various governmental services (municipal, provincial or federal), I want to communicate

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

6. In order to protect my linguistic rights, I want people who provide public services (clerks, waiters) to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

7. If adolescents or young adults speaking neither English nor French moved to this region, I would eventually want them to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. The region in which I would most want to reside would have an

English cultural and linguistic character which is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely strong

French cultural and linguistic character which is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely

Gaelic cultural and linguistic character which is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely

Directions: Please evaluate the following aspects by circling the one that best describes you:

1. I read French...

<u>(1)</u>	:	<u>(2)</u>	:	<u>(3)</u>	:	<u>(4)</u>	:	<u>(5)</u>
not		a		well		considerably		fluently

at all little well

2. I understand French...

(1) : (2) : (3) : (4) : (5)
 not a well considerably fluently
 at all little well

3. I write French...

(1) : (2) : (3) : (4) : (5)
 not a well considerably fluently
 at all little well

4. I speak French...

(1) : (2) : (3) : (4) : (5)
 not a well considerably fluently
 at all little well

Directions: We are interested in the type and amount of contact you experience with Francophones/French. Put a "X" in the place that best describes you.

1. In my family

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

2. In my neighbourhood

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

3. Among my friends

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

4. Among the students with whom I have regular contact

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

5. On the radio

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

6. In books

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

7. In social activities (festivals, concerts)

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

8. in the community

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

Directions: Below are 12 situations in which a person might choose to communicate or not to communicate. Presume you have completely free choice. Indicate when you would choose to start a conversation in each type of situation in French.

1	2	3	4	5
Never	rarely	from time to time	often	always

In French:

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance while standing in line.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend while standing in line.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger while standing in line.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

The purpose of the next section of the questionnaire is to examine interpersonal relations and ethnic identity by asking your opinions regarding different types of interactions. Several researchers agree that an individual's identity may change depending upon the situation that he/she is in. For example, in some situations you could identify yourself as an Anglophone, in other situations as a Francophone, whereas in others you may not identify with either of these two groups.

On the pages which follow, you will find several situations. In each case, evaluate your level of identification to each of the two groups. For example, in one situation, you may identify yourself as very "Anglophone", and not at all "Francophone". In this case you would mark the extreme ends of the scale in the following manner.

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

In other situations you may not identify with either of these two groups: that is, your language group identity may not be important in this situation. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

In other situations, you may identify with both groups at the same time. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

In still other situations, you may feel a little "Anglophone" and a little "Francophone". Each scale, therefore, can be used independently of the other. That is, if you feel slightly "Anglophone" you can **also** feel slightly "Francophone".

It is important that you remember that the language used in a situation is not necessarily an index of identity. For example, in one situation, you could speak French but feel very "Anglophone" or you could speak English but not identify yourself at all as a member of a language group. We ask you to give your first impression of yourself, as you are, without reference to who you would like to be or who you would have liked to have been. There are no right or wrong answers.

1. When I listen to music, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

2. When I read for pleasure, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

3. When I think about my life's goals, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

4. When I participate in cultural activities, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

5. When I prepare food, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

6. When I write my assignments, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

7. When I am at home, I feel...

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

8. When I travel, I feel...

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

Directions: The purpose of the following 12 items is to determine how you think important people in your life (your family or friends) view your usage of French across different situations. Using the scale provided, please choose the probability appropriate to you. For example, if you think that it is likely that the important people in your life think you should communicate in French in that particular situation, you would choose "5" for very probable.

In my opinion, the majority of persons who are important to me think that I should communicate in French in the following situations:

1	2	3	4	5
Not	Somewhat	Moderately	Rather	Very
Probable	Probable	Probable	Probable	Probable

- _____ 1. Present a talk to a group of strangers
- _____ 2. Talk to an acquaintance
- _____ 3. Talk to a large group of friends
- _____ 4. Talk to a small group of strangers
- _____ 5. Talk to a friend
- _____ 6. Talk in a large meeting of acquaintances
- _____ 7. Talk with a stranger
- _____ 8. Present a talk to a group of friends
- _____ 9. Talk in a small group of acquaintances
- _____ 10. Talk in a large meeting of strangers
- _____ 11. Talk in a small group of friends
- _____ 12. Present a talk to a group of acquaintances

Directions: Below are 12 situations in which you might need to communicate. In this case, we would like you to indicate HOW OFTEN you have done each of them in French.

- 1 = Never
- 2 = once or twice
- 3 = a few times
- 4 = occasionally
- 5 = often
- 6 = frequently
- 7 = many, many times

In French

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

Please take a moment to briefly answer the following four questions pertaining to your French learning experience.

- 1. What does it mean to you to be learning French in Nova Scotia?

2. In which situation(s) do you get to speak French the most often?

3. Can you think about what has brought you to the decision to learn French and describe the role (if any) that your parents or other family members have played in that decision?

4. Think about all the different situations in which you have contact with Francophones or the French language. Which one(s) do you feel were most beneficial to you?

General Information:

1. Age: _____ years
2. Gender: Male _____ Female _____
3. Are you currently enrolled in a French language class? Yes _____ No _____, if yes, is it your first? Yes _____ No _____
4. Do you speak a language other than English or French? Yes _____ No _____, If yes, please specify _____
5. What is your first language? _____
6. Does your mother speak French? Yes _____ No _____
7. Does your father speak French? Yes _____ No _____
8. Does anyone else in your family (grandparents, aunts, uncles, cousins, siblings) speak French? Yes _____ No _____
9. Do you have a French background? Yes _____ No _____ Not sure _____
10. Were you born on Cape Breton Island? Yes _____ No _____, If yes, how long have you lived in Cape Breton? _____ years. If no, where were you born?
11. Do you think French is sufficiently represented in the media (radio, TV, books)? Yes _____ No _____
12. In what program are you currently enrolled? _____

APPENDIX C
TIME 2 QUESTIONNAIRE
GAELIC LEARNERS

The following section contains a number of statements with which some people agree and others disagree. Please rate how much you personally agree or disagree with these statements--how much they reflect how you feel or think personally. Use the following scale:

- 1=Do not agree at all
- 2=agree a little
- 3=moderately agree
- 4=agree to a large extent
- 5=strongly agree

For each statement, write in the left margin with the number corresponding to the degree of your agreement or disagreement. There is no right or wrong answer. All that is important is that you indicate your personal feeling.

- ___ 1. I would feel confident and relaxed if I had to ask for directions in Gaelic.
- ___ 2. I really believe that I am capable of reading and understanding most texts in Gaelic.
- ___ 3. In my opinion, I know enough Gaelic to be able to write comfortably.
- ___ 4. Personally, I believe that I know enough Gaelic to speak correctly.
- ___ 5. I am very confident in my ability to write Gaelic correctly.
- ___ 6. I feel that I can understand someone speaking Gaelic quite well.
- ___ 7. If I met a Gaelic-speaking person and I had to speak with him/her in Gaelic, I would feel relaxed.
- ___ 8. I feel uneasy whenever I speak Gaelic.
- ___ 9. I get shy speaking Gaelic with a superior.

Learning about the Gaelic language and/or the Gaelic culture is important to me...

- ___ 10. because I may need it later on for job/studies.
- ___ 11. because it is expected of me.
- ___ 12. so that I can broaden my outlook.
- ___ 13. because I would like to learn as many foreign languages as possible.
- ___ 14. because I would like to spend some time abroad.
- ___ 15. because I would like to travel to countries where Gaelic is used.
- ___ 16. because I would like to make friends with foreigners.

- ____ 17. so that I can keep in touch with foreign friends and acquaintances.
- ____ 18. because it will enable me to learn more about the Gaelic world.
- ____ 19. because it will enable me to get to know various cultures and peoples.
- ____ 20. in order to get to know the life of the Gaelic-speakers.
- ____ 21. in order to better understand the Gaelic-speakers' behaviours and problems.

Part 1: The present resources of Anglophones, Francophones and Gaels in this region.

The statements in this section pertain to the resources to which the Anglophones and Francophones of this region have access at the present time. Please note that you are not to concern yourself with the resources which should be available but only those which are available now.

For each of the following sentences, you are to encircle the number from 1 to 5 which in your estimation best describes the resources presently available to the Anglophones and Francophones of this region. The same response given to both groups signifies that you consider both groups to be similar on this dimension.

1. In this region, TV programs broadcasted

In English are....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

In French are.....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

In Gaelic are.....

- | | | | | |
|------|-----|------------------------|----------|-----------------------|
| 1 | 2 | 3 | 4 | 5 |
| None | Few | Moderately
numerous | Numerous | Extremely
numerous |

2. How much importance do this region's school boards give to the teaching of languages, that is,

The teaching of English to Anglophones?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

The teaching of French to Francophones?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

The teaching of Gaelic to Gaels?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

3. In this region, the language of work is

English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

4. In this region, the degree to which businesses and industries are controlled

By Anglophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Francophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Gaels is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

5. In this region, how many of the provincial government services are offered

In English?

1	2	3	4	5
None	Few	Approximately half	most	all

In French?

1	2	3	4	5
None	Few	Approximately half	most	all

In Gaelic?

1	2	3	4	5
None	Few	Approximately half	most	all

6. In this region, to what degree are linguistic rights respected (the right to speak and to be addressed in one's mother tongue)

Where Anglophones are concerned?

1	2	3	4	5
Not At all	a little	moderately	much	completely

Where Francophones are concerned?

1	2	3	4	5
Not At all	a little	moderately	much	completely

Where Gaels are concerned?

1	2	3	4	5
Not At all	a little	moderately	much	completely

7. The persons moving from elsewhere to settle in this region

Use English

1	2	3	4	5
Never	rarely	from time to time	often	always

Use French

1	2	3	4	5
Never	rarely	from time to time	often	always

Use Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. This region is a territory whose

English cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

French cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

Gaelic cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

Part 2: What I want to do or be able to do in this region

The following statements refer to goals, wishes or desires. Your goals, wishes or desires are very personal thoughts which indicate what you want to do; each person has different goals, wishes or desires.

You are invited to respond to the following statements after having carefully considered what you want to do or be able to do with respect to the situations presented below.

Encircle the number on the scale of 1 to 5 which in your estimation best describes your goals, wishes and desires.

1. I want to watch TV programs broadcasted

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

2. Overall, in my activities at school, I want to communicate

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

3. In the jobs I will have in the future, I want to use as the language of work

English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

4. In my future jobs, I want my bosses or employers to communicate with me

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

5. In my contacts with various governmental services (municipal, provincial or federal), I want to communicate

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

6. In order to protect my linguistic rights, I want people who provide public services (clerks, waiters) to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

7. If adolescents or young adults speaking neither English nor French moved to this region, I would eventually want them to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. The region in which I would most want to reside would have an

English cultural and linguistic character which is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely strong

French cultural and linguistic character which is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely

Gaelic cultural and linguistic character which is....

1	2	3	4	5
extremely weak	weak	moderate	strong	extremely

Directions: Please evaluate the following aspects by circling the one that best describes you:

1. I read Gaelic...

<u>(1)</u>	:	<u>(2)</u>	:	<u>(3)</u>	:	<u>(4)</u>	:	<u>(5)</u>
not		a		well		considerably		fluently

at all little well

2. I understand Gaelic...

(1) : (2) : (3) : (4) : (5)
 not a well considerably fluently
 at all little well well

3. I write Gaelic...

(1) : (2) : (3) : (4) : (5)
 not a well considerably fluently
 at all little well well

4. I speak Gaelic...

(1) : (2) : (3) : (4) : (5)
 not a well considerably fluently
 at all little well well

Directions: We are interested in the type and amount of contact you experience with Gaels/Gaelic. Put a "X" in the place that best describes you.

1. In my family

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

2. In my neighbourhood

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

3. Among my friends

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

4. Among the students with whom I have regular contact

Not at all frequent _____ _____ _____ _____ _____ _____ Extremely frequent

Not at all pleasant _____ _____ _____ _____ _____ _____ Extremely pleasant

5. On the radio

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

6. In books

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

7. In social activities (festivals, concerts)

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

8. in the community

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

Directions: Below are 12 situations in which a person might choose to communicate or not to communicate. Presume you have completely free choice. Indicate when you would choose to start a conversation in each type of situation in Gaelic.

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic:

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance while standing in line.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend while standing in line.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger while standing in line.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

The purpose of the next section of the questionnaire is to examine interpersonal relations and ethnic identity by asking your opinions regarding different types of interactions. Several researchers agree that an individual's identity may change depending upon the situation that he/she is in. For example, in some situations you could identify yourself as an Anglophone, in other situations as a Gael, whereas in others you may not identify with either of these two groups.

On the pages which follow, you will find several situations. In each case, evaluate your level of identification to each of the two groups. For example, in one situation, you may identify yourself as very "Anglophone", and not at all "Gaelic". In this case you would mark the extreme ends of the scale in the following manner.

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

In other situations you may not identify with either of these two groups: that is, your language group identity may not be important in this situation. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

In other situations, you may identify with both groups at the same time. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

In still other situations, you may feel a little "Anglophone" and a little "Gaelic". Each scale, therefore, can be used independently of the other. That is, if you feel slightly "Anglophone" you can **also** feel slightly "Gaelic". **It is important that you remember that the language used in a situation is not necessarily an index of identity.** For example, in one situation, you could speak Gaelic but feel very "Anglophone" or you could speak English but not identify yourself at all as a member of a language group. We ask you to give your first impression of yourself, as you are, without reference to who you would like to be or who you would have liked to have been. There are no right or wrong answers.

1. When I listen to music, I feel...

Not at all						
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone

Not at all						
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

2. When I read for pleasure, I feel...

Not at all						
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone

Not at all						
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

3. When I think about my life's goals, I feel...

Not at all						
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone

Not at all						
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

4. When I participate in cultural activities, I feel...

Not at all						
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone

Not at all						
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

5. When I prepare food, I feel...

Not at all						
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone

Not at all						
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

6. When I write my assignments, I feel...

Not at all						
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone

Not at all						
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Gaelic

7. When I am at home, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

8. When I travel, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Gaelic	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Gaelic

Directions: The purpose of the following 12 items is to determine how you think important people in your life (your family or friends) view your usage of Gaelic across different situations. Using the scale provided, please choose the probability appropriate to you. For example, if you think that it is likely that the important people in your life think you should communicate in Gaelic in that particular situation, you would choose "5" for very probable.

In my opinion, the majority of persons who are important to me think that I should communicate in Gaelic in the following situations:

1	2	3	4	5
Not	Somewhat	Moderately	Rather	Very
Probable	Probable	Probable	Probable	Probable

- _____ 1. Present a talk to a group of strangers
- _____ 2. Talk to an acquaintance
- _____ 3. Talk to a large group of friends
- _____ 4. Talk to a small group of strangers
- _____ 5. Talk to a friend
- _____ 6. Talk in a large meeting of acquaintances
- _____ 7. Talk with a stranger
- _____ 8. Present a talk to a group of friends
- _____ 9. Talk in a small group of acquaintances
- _____ 10. Talk in a large meeting of strangers
- _____ 11. Talk in a small group of friends
- _____ 12. Present a talk to a group of acquaintances

Directions: Below are 12 situations in which you might need to communicate. In this case, we would like you to indicate **HOW OFTEN** you have done each of them in Gaelic.

- 1 = Never
- 2 = once or twice
- 3 = a few times
- 4 = occasionally
- 5 = often
- 6 = frequently
- 7 = many, many times

In Gaelic:

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

Imagine that you find yourself in a situation with a Gael who speaks only a little English and an Anglophone who speaks no Gaelic at all. They are having a disagreement and you realize that it is due to cultural differences. How effective would you be as a cultural interpreter between the Gael and the Anglophone in this situation?

- | | | | | |
|------------------|------------------|-------------------|------------------|------------------|
| 1 | 2 | 3 | 4 | 5 |
| Not | Somewhat | Moderately | Rather | Very |
| Effective | Effective | Effective | Effective | Effective |

Please take a moment to briefly answer the following questions pertaining to your Gaelic learning experience.

1. How important is Gaelic in your life?

2. Do you feel that the prospects for Gaelic survival are good? Why or why not?

3. Considering all options, both inside and outside the classroom, how do you intend to maintain your proficiency in Gaelic?

4. What was your best strategy for learning Gaelic in this class?

General Information:

1. Age: _____ years
2. Gender: Male _____ Female _____
3. Are you currently enrolled in a Gaelic language class? Yes _____ No _____, if yes, is it your first? Yes _____ No _____
4. Approximately how many hours (including this class) have you been learning Gaelic? _____ hrs.
5. Do you speak a language other than English or Gaelic? Yes _____ No _____, If yes, please specify _____
6. What is your first language? _____
7. Does your mother speak Gaelic? Yes _____ No _____
8. Does your father speak Gaelic? Yes _____ No _____
9. Does anyone else in your family (grandparents, aunts, uncles, cousins, siblings) speak Gaelic? Yes _____ No _____
10. Do you have a Gaelic background? Yes _____ No _____ Not sure _____
11. Where were you born? City/town _____ Prov./State _____ Country _____
12. How long have you been living in Nova Scotia? _____
13. Do you think Gaelic is sufficiently represented in the media (radio, TV, books)? Yes _____ No _____
14. In what program are you currently enrolled? _____
15. Do you intend to take Gaelic classes in the future? Yes _____ No _____

APPENDIX D
TIME 2 QUESTIONNAIRE
FRENCH LEARNERS

The following section contains a number of statements with which some people agree and others disagree. Please rate how much you personally agree or disagree with these statements---how much they reflect how you feel or think personally. Use the following scale:

- 1=Do not agree at all
 2=agree a little
 3=moderately agree
 4=agree to a large extent
 5=strongly agree

For each statement, write in the left margin with the number corresponding to the degree of your agreement or disagreement. There is no right or wrong answer. All that is important is that you indicate your personal feeling.

- ____ 1. I would feel confident and relaxed if I had to ask for directions in French.
- ____ 2. I really believe that I am capable of reading and understanding most texts in French.
- ____ 3. In my opinion, I know enough French to be able to write comfortably.
- ____ 4. Personally, I believe that I know enough French to speak correctly.
- ____ 5. I am very confident in my ability to write French correctly.
- ____ 6. I feel that I can understand someone speaking French quite well.
- ____ 7. If I met a French-speaking person and I had to speak with him/her in French, I would feel relaxed.
- ____ 8. I feel uneasy whenever I speak French.
- ____ 9. I get shy speaking French with a superior.

Learning about the French language and/or the French culture is important to me...

- ____ 10. because I may need it later on for job/studies.
- ____ 11. because it is expected of me.
- ____ 12. so that I can broaden my outlook.
- ____ 13. because I would like to learn as many foreign languages as possible.
- ____ 14. because I would like to spend some time abroad.
- ____ 15. because I would like to travel to countries where French is used.
- ____ 16. because I would like to make friends with foreigners.

- ____ 17. so that I can keep in touch with foreign friends and acquaintances.
- ____ 18. because it will enable me to learn more about the French world.
- ____ 19. because it will enable me to get to know various cultures and peoples.
- ____ 20. in order to get to know the life of the French-speakers.
- ____ 21. in order to better understand the French-speakers' behaviors and problems.

Part 1: The present resources of Anglophones, Francophones and Gaels in this region.

The statements in this section pertain to the resources to which the Anglophones and Francophones of this region have access at the present time. Please note that you are not to concern yourself with the resources which should be available but only those which are available now.

For each of the following sentences, you are to encircle the number from 1 to 5 which in your estimation best describes the resources presently available to the Anglophones and Francophones of this region. The same response given to both groups signifies that you consider both groups to be similar on this dimension.

1. In this region, TV programs broadcasted

In English are....

1	2	3	4	5
None	Few	Moderately numerous	Numerous	Extremely numerous

In French are.....

1	2	3	4	5
None	Few	Moderately numerous	Numerous	Extremely numerous

In Gaelic are.....

1	2	3	4	5
None	Few	Moderately numerous	Numerous	Extremely numerous

2. How much importance do this region's school boards give to the teaching of languages, that is,

The teaching of English to Anglophones?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

The teaching of French to Francophones?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

The teaching of Gaelic to Gaels?

1 No importance	2 Little importance	3 Moderate importance	4 much importance	5 Great importance
-----------------------	---------------------------	-----------------------------	-------------------------	--------------------------

3. In this region, the language of work is

English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

4. In this region, the degree to which businesses and industries are controlled

By Anglophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Francophones is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

By Gaels is...

1	2	3	4	5
Extremely low	low	Moderate	high	Extremely high

5. In this region, how many of the provincial government services are offered

In English?

1	2	3	4	5
None	Few	Approximately half	most	all

In French?

1	2	3	4	5
None	Few	Approximately half	most	all

In Gaelic?

1	2	3	4	5
None	Few	Approximately half	most	all

6. In this region, to what degree are linguistic rights respected (the right to speak and to be addressed in one's mother tongue)

Where Anglophones are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

Where Francophones are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

Where Gaels are concerned?

1	2	3	4	5
Not	a little	moderately	much	completely
At all				

7. The persons moving from elsewhere to settle in this region

Use English

1	2	3	4	5
Never	rarely	from time to time	often	always

Use French

1	2	3	4	5
Never	rarely	from time to time	often	always

Use Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. This region is a territory whose

English cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

French cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

Gaelic cultural and linguistic character is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

Part 2: What I want to do or be able to do in this region

The following statements refer to goals, wishes or desires. Your goals, wishes or desires are very personal thoughts which indicate what you want to do; each person has different goals, wishes or desires.

You are invited to respond to the following statements after having carefully considered what you want to do or be able to do with respect to the situations presented below.

Encircle the number on the scale of 1 to 5 which in your estimation best describes your goals, wishes and desires.

1. I want to watch TV programs broadcasted

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

2. Overall, in my activities at school, I want to communicate

In English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

In Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

3. In the jobs I will have in the future, I want to use as the language of work

English

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

French

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

Gaelic

1 Never	2 rarely	3 from time to time	4 often	5 always
------------	-------------	------------------------	------------	-------------

4. In my future jobs, I want my bosses or employers to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

5. In my contacts with various governmental services (municipal, provincial or federal), I want to communicate

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

6. In order to protect my linguistic rights, I want people who provide public services (clerks, waiters) to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

7. If adolescents or young adults speaking neither English nor French moved to this region, I would eventually want them to communicate with me

In English

1	2	3	4	5
Never	rarely	from time to time	often	always

In French

1	2	3	4	5
Never	rarely	from time to time	often	always

In Gaelic

1	2	3	4	5
Never	rarely	from time to time	often	always

8. The region in which I would most want to reside would have an

English cultural and linguistic character which is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely strong
------------------------	-----------	---------------	-------------	--------------------------

French cultural and linguistic character which is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely
------------------------	-----------	---------------	-------------	----------------

Gaelic cultural and linguistic character which is....

1 extremely weak	2 weak	3 moderate	4 strong	5 extremely
------------------------	-----------	---------------	-------------	----------------

Directions: Please evaluate the following aspects by circling the one that best describes you:

1. I read French...

<u>(1)</u> not at all	:	<u>(2)</u> a little	:	<u>(3)</u> well	:	<u>(4)</u> considerably well	:	<u>(5)</u> fluently
-----------------------------	---	---------------------------	---	--------------------	---	------------------------------------	---	------------------------

2. I understand French...

<u>(1)</u> not at all	:	<u>(2)</u> a little	:	<u>(3)</u> well	:	<u>(4)</u> considerably well	:	<u>(5)</u> fluently
-----------------------------	---	---------------------------	---	--------------------	---	------------------------------------	---	------------------------

3. I write French...

<u>(1)</u> not at all	:	<u>(2)</u> a little	:	<u>(3)</u> well	:	<u>(4)</u> considerably well	:	<u>(5)</u> fluently
-----------------------------	---	---------------------------	---	--------------------	---	------------------------------------	---	------------------------

4. I speak French...

<u>(1)</u> not at all	:	<u>(2)</u> a little	:	<u>(3)</u> well	:	<u>(4)</u> considerably well	:	<u>(5)</u> fluently
-----------------------------	---	---------------------------	---	--------------------	---	------------------------------------	---	------------------------

Directions: We are interested in the type and amount of contact you experience with Francophones/French. Put a "X" in the place that best describes you.

1. In my family

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

2. In my neighbourhood

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

3. Among my friends

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

4. Among the students with whom I have regular contact

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

5. On the radio

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

6. In books

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

7. In social activities (festivals, concerts)

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

8. in the community

Not at all frequent _____ Extremely frequent

Not at all pleasant _____ Extremely pleasant

Directions: Below are 12 situations in which a person might choose to communicate or not to communicate. Presume you have completely free choice. Indicate when you would choose to start a conversation in each type of situation in French.

1	2	3	4	5
Never	rarely	from time to time	often	always

In French:

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance while standing in line.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend while standing in line.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger while standing in line.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

The purpose of the next section of the questionnaire is to examine interpersonal relations and ethnic identity by asking your opinions regarding different types of interactions. Several researchers agree that an individual's identity may change depending upon the situation that he/she is in. For example, in some situations you could identify yourself as an Anglophone, in other situations as a Francophone, whereas in others you may not identify with either of these two groups.

On the pages which follow, you will find several situations. In each case, evaluate your level of identification to each of the two groups. For example, in one situation, you may identify yourself as very "Anglophone", and not at all "Francophone". In this case you would mark the extreme ends of the scale in the following manner.

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

In other situations you may not identify with either of these two groups: that is, your language group identity may not be important in this situation. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

In other situations, you may identify with both groups at the same time. In this case you would use the two scales in the following manner:

1. You are visiting a neighbour and you are talking about your day.

Not at all Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Anglophone
Not at all Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Very Francophone

In still other situations, you may feel a little "Anglophone" and a little "Francophone". Each scale, therefore, can be used independently of the other. That is, if you feel slightly "Anglophone" you can **also** feel slightly "Francophone".

It is important that you remember that the language used in a situation is not necessarily an index of identity. For example, in one situation, you could speak French but feel very "Anglophone" or you could speak English but not identify yourself at all as a member of a language group. We ask you to give your first impression of yourself, as you are, without reference to who you would like to be or who you would have liked to have been. There are no right or wrong answers.

1. When I listen to music, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

2. When I read for pleasure, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

3. When I think about my life's goals, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

4. When I participate in cultural activities, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

5. When I prepare food, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

6. When I write my assignments, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

7. When I am at home, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

8. When I travel, I feel...

Not at all						Very
Anglophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Anglophone

Not at all						Very
Francophone	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	<u>(4)</u>	<u>(5)</u>	Francophone

Directions: The purpose of the following 12 items is to determine how you think important people in your life (your family or friends) view your usage of French across different situations. Using the scale provided, please choose the probability appropriate to you. For example, if you think that it is likely that the important people in your life think you should communicate in French in that particular situation, you would choose "5" for very probable.

In my opinion, the majority of persons who are important to me think that I should communicate in French in the following situations:

1	2	3	4	5
Not	Somewhat	Moderately	Rather	Very
Probable	Probable	Probable	Probable	Probable

_____ 1. Present a talk to a group of strangers

_____ 2. Talk to an acquaintance

_____ 3. Talk to a large group of friends

_____ 4. Talk to a small group of strangers

_____ 5. Talk to a friend

_____ 6. Talk in a large meeting of acquaintances

_____ 7. Talk with a stranger

_____ 8. Present a talk to a group of friends

_____ 9. Talk in a small group of acquaintances

_____ 10. Talk in a large meeting of strangers

_____ 11. Talk in a small group of friends

_____ 12. Present a talk to a group of acquaintances

Directions: Below are 12 situations in which you might need to communicate. In this case, we would like you to indicate **HOW OFTEN** you have done each of them in French.

- 1 = Never
- 2 = once or twice
- 3 = a few times
- 4 = occasionally
- 5 = often
- 6 = frequently
- 7 = many, many times

In French

- _____ 1. Present a talk to a group of strangers.
- _____ 2. Talk with an acquaintance.
- _____ 3. Talk in a large meeting of friends.
- _____ 4. Talk in a small group of strangers.
- _____ 5. Talk with a friend.
- _____ 6. Talk in a large meeting of acquaintances.
- _____ 7. Talk with a stranger.
- _____ 8. Present a talk to a group of friends.
- _____ 9. Talk in a small group of acquaintances.
- _____ 10. Talk in a large meeting of strangers.
- _____ 11. Talk in a small group of friends.
- _____ 12. Present a talk to a group of acquaintances.

Imagine that you find yourself in a situation with a Francophone who speaks only a little English and an Anglophone who speaks no French at all. They are having a disagreement and you realize that it is due to cultural differences. How effective would you be as a cultural interpreter between the Francophone and the Anglophone in this situation?

- | | | | | |
|------------------|------------------|-------------------|------------------|------------------|
| 1 | 2 | 3 | 4 | 5 |
| Not | Somewhat | Moderately | Rather | Very |
| Effective | Effective | Effective | Effective | Effective |

Please take a moment to briefly answer the following questions pertaining to your French learning experience.

1. How important is French in your life?

2. Do you feel that the prospects for French survival are good? Why or why not?

3. Considering all options, both inside and outside the classroom, how do you intend to maintain your proficiency in French?

4. What was your best strategy for learning French in this class?

General Information:

1. Age: _____ years
2. Gender: Male _____ Female _____
3. Are you currently enrolled in a French language class? Yes _____ No _____, if yes, is it your first?
Yes _____ No _____
4. Approximately how many hours (including this class) have you been learning French? _____ hrs.
5. Do you speak a language other than English or French? Yes _____ No _____, If yes, please specify

6. What is your first language? _____
7. Does your mother speak French? Yes _____ No _____
8. Does your father speak French? Yes _____ No _____
9. Does anyone else in your family (grandparents, aunts, uncles, cousins, siblings) speak French?
Yes _____ No _____
10. Do you have a French background? Yes _____ No _____ Not sure _____
11. Where were you born? City/town _____ Prov./State _____ Country _____
12. How long have you been living in Nova Scotia? _____
13. Do you think French is sufficiently represented in the media (radio, TV, books)? Yes _____ No

14. In what program are you currently enrolled? _____
15. Do you intend to take French classes in the future? Yes _____ No _____

APPENDIX E
K-MEANS CLUSTER ANALYSIS

Summary of K-means Cluster Analysis

Time 1

Cluster 1. The students in cluster 1 (n=30) were French learners from St. FX who believe that learning French would provide greater job opportunities, who speak French most often in class, who are learning French in order to teach it, whose parents provide only a supportive role and who find that their most beneficial French contact situations occur when they travel.

Cluster 2. The students in cluster 2 (n=12) were French learners from St. FX who believe that learning French would connect them with their French heritage, who speak French most often with their friends and family, who decided to learn French to facilitate travel, whose parents speak French, and who find that their most beneficial French contact situations occur when they are traveling.

Cluster 3. The students in the third cluster (n=51) were Gaelic learners from St. FX who believe learning Gaelic connects them with their heritage, who speak Gaelic most often in class, who are learning Gaelic to connect with their heritage, whose parents provide only a supportive role and whose most beneficial Gaelic contact situations are with family members.

Cluster 4. The students in the fourth cluster (n=35) were French learners from St. FX who believed that being in Nova Scotia gave them the opportunity to learn French, who speak French most often at work, who decided to learn French to teach it, whose parents provide a supportive role only and whose most beneficial French contact situations occur at work.

Cluster 5. The students in cluster 5 (n=32) were French learners from St. FX who believe that learning French will help in their travels, who speak French most often in class, who decided to learn French simply to be bilingual, whose parents provide a supportive role, whose most beneficial French contact situations are with family.

Cluster 6. The students in cluster six (n=13) were French learners from UCCB who believe that learning French will teach them more about the French culture, who speak French most often when they travel, who are learning French in order to obtain a job, whose parents played no role in their decision to learn French, and whose most beneficial contact with French occurs when they travel.

Cluster 7. The students in cluster seven (n=15) were French learners from St. FX who believe that learning French will help when they travel, who speak French most of ten with friends and family, who decided to learn French in order to connect with their French heritage, whose parents speak it, and whose most beneficial French contact occurs in communication with members of their community.

Cluster 8. The students in the last cluster (n=29) were Gaelic learners from UCCB who believed that being in Nova Scotia meant they had the opportunity to learn Gaelic, who speak Gaelic most often in class, whose decision to learn Gaelic was based on an interest in the Gaelic culture, whose parents provided a supportive role and who believe that any contact in Gaelic is beneficial.

Time 2

Cluster 1. The students in cluster 1 (n=22) were French learners from St. FX who believe that learning French is important to getting a good job and having future opportunities, who believe that the chances for the survival of the French language are good due to the number of speakers, who intend on taking more French classes to maintain their proficiency in French and whose strategy for learning French involved attentive listening in class.

Cluster 2. The students in cluster 2 (n=16) were Gaelic learners from St. FX who said that Gaelic is important to because it is part of their heritage, who believe that Gaelic will survive

because of its status in Nova Scotia, who intend to use Gaelic as often as possible and whose strategy for learning was listening in class.

Cluster 3. The students in the third cluster (n=7) were French learners from St. FX who feel that French is important to obtaining a good job and having future opportunities, who believe that French will survive in Nova Scotia because of its official status, who plan to travel to where French is spoken in order to maintain proficiency and who indicated that listening in class was their main strategy for learning French.

Cluster 4. The students in the fourth cluster (n=16) were French learners from St. FX who indicated that French was not important an important part of their lives, who did not believe that the chances of French survival in Nova Scotia were good, who intend to travel to where French is spoken as a way to maintain their proficiency and whose strategy for learning French was studying.

Cluster 5. The students in cluster 5 (n=14) were Gaelic learners from St. FX who said that Gaelic was important to getting a job and having future opportunities, who believe that Gaelic will survive in Nova Scotia due to the support the language receives, who intend to speak Gaelic often to maintain their proficiency, and whose strategy for learning Gaelic was studying.

Cluster 6. The students in cluster six (n=18) were French learners from St. FX who indicated that French was important to getting a good job and having future opportunities, who believe that French will survive in Nova Scotia due to the support the language receives, who plan to speak French often to maintain their proficiency, and whose strategy for learning French was to use it as often as possible.

Cluster 7. The students in cluster seven (n=14) were French learners from UCCB who said that French will help them interact with Francophones, who feel that French will survive in

Nova Scotia due to the number of speakers, who plan to speak French often to maintain their proficiency and whose strategy for learning French is to use it often.

Cluster 8. The students in the last cluster (n=16) were Gaelic learners from UCCB who said that Gaelic was important to them because it is part of their heritage, who believe that Gaelic will survive in Nova Scotia due to the support of younger people, who intend to speak it in order to maintain proficiency, and whose strategy for learning was to use Gaelic as often as possible.