

Beyond Time on Task: Strategy Use and Development in Intensive Core French

Paula Kristmanson
University of New Brunswick

French Second Language (FSL) learning in the province of New Brunswick (NB) has a history of change and development. As Canada's only official bilingual province, the importance of learning both official languages has been and continues to be at the forefront of many educational initiatives. Since 1987, the core French program has been compulsory from Grade 1 to Grade 10 inclusive. The core French program is one that dedicates a minimum of 30 minutes of FSL instruction per day in elementary school, 40 minutes per day in middle school, and one semester per year in high school for a total of approximately 1065 hours of instruction (NB Department of Education, 2001). Elementary school in NB begins at Kindergarten and ends in grade five although core French is usually not offered before grade one.

An internal report published by the NB Department of Education in 1979 indicated that only 61% of core French Students achieved an oral proficiency rating¹ higher than Basic (Rehorick, 1993). Since that time, subsequent reports have prompted an increase of attention to and improvement of core French programs through curriculum and professional development initiatives including a focus on raising the standards related to language levels and methodology of FSL teachers. In 1993, oral proficiency ratings for core French students improved somewhat with 45.3% achieving a Novice level; however only 35.9% achieved an intermediate rating, which is the target level for core French students (Rehorick, 1993). Report Card 2001 states that 19% of core French students achieved the desired goal for core French program (i.e., intermediate) in 2000 and 18% in 2001.

A research project, led by the late H.H. Stern, aimed at examining and improving the core French program, resulted in the National Core French Study (NCFS) (LeBlanc et al, 1990). The NCFS focused on the development of a multidimensional curriculum consisting of four principal syllabi: 1) The Communicative/Experiential syllabus, 2) the Language syllabus, 3) the General Language Education syllabus and 4) the Cultural syllabus. The NCFS was a nation wide effort designed to improve the methodology for the teaching of FSL and, in turn, impact upon the language proficiency of core French students. The government of NB has embraced the philosophy of the NCFS as a basis for developing curriculum documents.

Another way that the province has sought to improve FSL levels of anglophone students is by offering the French immersion option. Described as the "trial balloon that flew" (Lapkin, Swain, & Argue, 1983), immersion had its beginnings in 1965 in St. Lambert, Quebec. NB implemented French in 1969 and, in contrast to the core French, it provided a more concentrated program where French is the language of instruction for the main curricular areas (Edwards & Rehorick, 1988). NB currently offers early immersion, beginning at grade one, and late immersion, beginning at grade six, to students in anglophone school districts.

A series of reports has been published over the last several years on the state of FSL in NB (e.g., Stern, 1984; Lang, 1989; Rehorick, 1993). All of these, including the most recent report by Price WaterhouseCoopers (2000), have recommended improvements to the core French program. This focus on the need to improve core French led to a renewed examination of alternatives for the delivery of core French. This endeavour coincided with favourable notice and positive results of a recent initiative for the teaching of FSL, Intensive core French (ICF), a program that has been successfully introduced in the province of Newfoundland and Labrador (NL) (Netten & Germain, 2002). The ICF program, as the name suggests, is a version of an intensive language learning experience referred to by

¹ The Oral Proficiency Interview (OPI) is a assessment tool used by the New Brunswick government to evaluate oral language proficiency. The four major levels of proficiency are described as Basic (0-0+), Novice (1- 1+), Intermediate (2-2+), Advanced (3-3+) and Superior (4).

some as a "bain linguistique" or language bath (Germain & Netten, 2002). Unlike the immersion program, the ICF program is of a much shorter duration (5 months) and does not focus exclusively on subject matter learning but rather on the development of French language skills. The first "intensive" language programs were established in the province of Quebec in the early 1970's as "classes d'accueil" for immigrants (Billy, 1980) and since then there have been four individual attempts at this "language bath" type program in four provinces over the last several years (Germain & Netten, 2002). In particular, the ICF program recently implemented and studied in NF has prompted interest from other provinces, including NB, to explore this option.

1. Program description

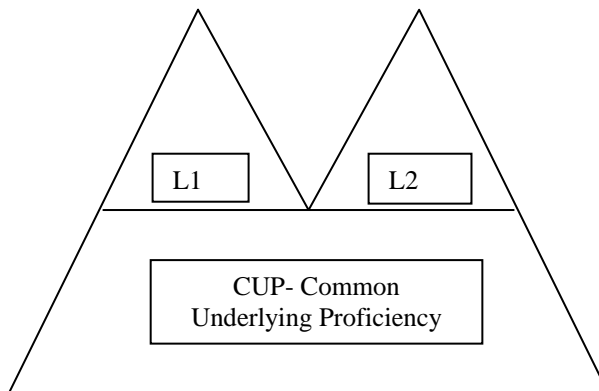
The ICF program gives students a "language boost" at the end of elementary school by temporarily increasing the amount of exposure to French language learning in the first half of the school year and compacting the English curriculum in the second half of the year (Netten & Germain, 2002). One of the challenges faced in the regular Core French program (i.e., a program typically consisting of 30-45 minutes of French per day) is the very limited time on task and the lack of intensity of language study. The ICF program seeks to enhance the Core French program but it is more than an "intensive dose" of French in SL. It also is characterized a particular theoretical principle; the transdisciplinary approach (Netten & Germain, 2002).

1.1 Transdisciplinary approach

The "transdisciplinary approach" emphasizes the development of skills and strategies that cross boundaries of subject disciplines including first and second language learning. This approach is rooted in the work of two prominent educational theorists- Vygotsky and Cummins.

One significant element of the transdisciplinary approach emerges from the work of Jim Cummins. Cummins' (1979) theory of language interdependence proposed that there are common mental processes underlying both first and second language learning. Cummins has provided a visual representation for this theory referred to as the "Iceberg" model.

Cummins' hypothesis on interdependence of languages (1979, 1981)- "Iceberg Theory"



The iceberg analogy refers to the assumption that on the surface the first and second languages appear to be functioning in isolation but under the surface there are academic and intellectual processes that are common to both languages. In Cummins' hypothesis, the theory is that first language learning "proficiencies" can be transferred to the second language learning context. The unique aspect of the use of Cummins theory in the ICF theoretical framework is that this hypothesis could also work in reverse. That is to say that at the same time learners are learning a second language, they are also developing capacities which could be used in the first language learning setting (Netten & Germain, 2002).

Although Cummins' iceberg hypothesis provides the theoretical reasoning for the transdisciplinary nature of the ICF and English language arts components of the curriculum, Vygotsky (1962) is cited to explain that of the ICF as it relates to other subject matter. In terms of the development of intellectual development, Vygotsky (1962) theorized that although schools compartmentalize curriculum, learning and cognition do not happen in this segregated manner. Indeed, many cognitive processes are common to many disciplines. In Vygotsky's words;

"Instruction has its own sequences and organization, it follows a curriculum and a timetable, and its rules cannot be expected to coincide with the inner laws of the developmental processes it calls to life... We found that intellectual development... is not compartmentalized according to topics of instruction. Its course is much more unitary, and the different school subjects interact in contributing to it" (Vygotsky, 1962, pp. 101-102).

When learners are exposed to certain content areas, they are not simply gaining knowledge related to that specific subject, they are also gaining capacities or competencies that cross curricular boundaries. The development of these sorts of skills is one integral component of the transdisciplinary approach (Germain & Netten, 2001).

Another element of the Vygotskian view of learning relates to the social nature of learning. He was convinced that learning is a dynamic social process. This philosophy of learning relates closely to the another key characteristic of the transdisciplinary approach: the link between interaction and cognition.

Inspired by the work of Vygotsky, several neo-piagetian researchers (Doise & Mugny, 1989; Perret-Clermont, 1980) have recognized Piaget's (1967) neglect of social interaction in the development of cognition. To complement Piaget's work which focuses on the role of the individual in a child's cognitive development, this team of researchers has examined the connection between social development and the development of cognitive skills. Socialization is not simply peripheral to learning, but acts as a key stimulant of intellectual development (Germain & Netten, 2001). Thus, pedagogy based on interactive tasks that develop a variety of intellectual capacities or mental processes is another key component of the transdisciplinary approach. In order to describe this approach in a practical manner, the discussion will now turn to the curriculum implemented for the ICF pilot program in the province of New Brunswick (NB).

1.2 New Brunswick's program

The basic principles of NB's ICF program are similar to those in the original program piloted in NL (Netten & Germain, 2002). The most significant objective of the ICF program being the development of oral communication skills. As is underlined in the Communicative/ Experiential syllabus of the NCFS (LeBlanc et al, 1990) the focal point for an effective second language program is the creation of situations in which students have opportunities for interaction. In the same way that Krashen (1982) stressed the importance of "comprehensible input" in order for a person to acquire a second language, Swain (1985) affirmed the necessity for output. In an intensive fashion, the ICF program strives to combine these concepts of input and output to increase communicative competence.

All core French programs in the province of NB subscribe to this emphasis on oral comprehension and basic oral communication. In the ICF program, the outcomes are expanded, not only in terms of expectations for these two language skills, but also for reading and writing. Due to the increase in time devoted to French language learning, students in the ICF program students are exposed to numerous activities integrating the four language skills. Through guided reading and writing approaches similar in some ways to those used in the beginning stages of literacy learning in first language classrooms, students are given opportunities to explore various genres of writing tasks (e.g. poems, journals, descriptive paragraphs, letters, news articles, biographies) and read about various topics of interest in their second language. Scarcella & Oxford (1992) discuss the interwoven nature of language learning and the importance of introducing even beginning language learners to authentic, appropriate, and relevant reading and writing tasks. In the ICF program, the speaking, listening, reading and writing activities are linked together by thematic units which will now be described.

1.2.1 Integrated thematic curriculum

The guiding principle for the development of the units for the NB context was the desire to create a microcosm of society; to ask and answer questions pertaining to life in general. This goal came to fruition with the creation of a program called "Bienvenue dans l'île" which situates the language learners in a new setting and calls for their discovery and exploration of this new environment. The program takes an integrated, theme/content-based approach to FSL learning. LeBlanc (1990) stated that "it is through integration of content into coherent teaching units that the integrity of language will be best respected" (p.11). In order to accomplish the goals of the ICF curriculum, the NB team developed a program containing seven integrated units:

- "Bienvenue dans l'île" - Welcome to the island- introductory unit
- "Nous, les naufragés"- The castaways- community building
- "Autour de nous"- Around us- discovering their environment
- "Être en pleine forme"- Being in good shape- nutrition and physical fitness
- "La culture"- Culture- diversity and commonalities and Acadian culture
- "La communication"- Communication- Newspaper as means of communicating and recording experiences of the ICF class
- "La Vie dans l'Île" - Life on the island- evening exposition/ show for members of the community

Units in the NB program cover themes normally associated with Core French at this level. For example, in the "Être en pleine forme" unit, topics such as nutrition, recreation and hygiene are covered. In the "Nous, les naufragés" unit, students talk about themselves and their family, friendship and community relations. In the first unit, students will review vocabulary related to the classroom and the school. Themes such as holidays, transportation, family, animals have already been introduced previously in the Core French program and are also included in a review and reinforcement mode in ICF program. Another important part of the ICF program for NB was the fact that this type of curriculum allowed for linkages to other curriculum areas.

1.2.2 Curricular links

Cummins' (1979) theory of language interdependence underlines the connections that exist in literacy development in both first and second language learning. In the ICF environment the theoretical assumption is that while learners are learning a second language, they are developing capacities that could also be used in the first language learning setting (Netten & Germain, 2002). Using this theoretical framework, many of the curriculum objectives for the English language arts curriculum are being addressed through the ICF program. To ensure that curricular links were effectively incorporated into the ICF program, developers consulted with a language arts specialist. The objective for the NB ICF is a rich language arts experience that addresses general curriculum outcomes as well as some specific curriculum outcomes from both the core French and the English Language Arts curriculum guides.

The following are examples of curriculum outcome links to the language arts program for the second unit of the program:

Students will be expected to:

- *Contribute thoughts, ideas and experiences to discussions, and ask question to clarify their ideas and those of their peers*
- *Ask and respond to questions and seek clarification or explanation of ideas and concepts*
- *Engage in, respond to and evaluate oral presentations*
- *Expand appropriate note-making strategies for a growing repertoire (e.g., outlines, charts and diagrams)*
- *Create written and media texts, collaboratively and independently, in different modes (expressive, transactional and poetic) and in an increasing variety of forms*
- *Use a range of prewriting, drafting, revising, editing, proofreading and presentation strategies*

(NB ICF Program Guide, 2002)

In terms of links to other subject area, Vygotsky (1962) theorized that although schools compartmentalize curriculum, learning and cognition do not happen in this segregated manner. Indeed, many cognitive processes are common to many disciplines. When learners are exposed to certain content areas, they are not simply gaining knowledge related to that specific subject, they are also gaining capacities or competencies that cross curricular boundaries. Although the objective of the ICF program is subscribing to an integrated "transdisciplinary" approach to language teaching, efforts have also been made to specifically address curriculum objectives from the Social Studies, Science, and Health curricula for grade five. The following are examples of curriculum outcome links to other curriculum areas found in unit four of the ICF Program Guide:

Health Education- *Students will be expected to:*

- *Express the benefits of daily physical activity*
- *Begin to critically analyze information on the nutritional value of foods*
- *Describe the importance of proper hygiene practices*

Physical Education- *Students will be expected to:*

- *Be involved in fitness activities*
- *Explain the importance of following rules, routines and safety procedures in a variety of activities*
- *Accept responsibility for the various roles while participating in physical activity*
- *Demonstrate etiquette and fair play by participating co-operatively in physical activity with others who may have varying interests, abilities and backgrounds*

Science- *Students will be expected to:*

- *Demonstrate an ability to make measurements with accuracy*

(NB ICF Program Guide, 2002)

1.2.3 Projects

Another distinguishing characteristic of the ICF program is the teaching methodology that emphasizes communication and experiential learning (Tremblay, Duplantie & Huot, 1990). The curriculum is organized in a thematic, project-based manner that guides learners from simple to complex tasks. This methodology allows students to not only build all four language skills, but also cognitive, social, strategic, organizational, and personal skills as well. (Germain & Netten, 2001). Also referred to as a "project-based approach," this methodology encourages students to engage in a series of interrelated activities of both individual and cooperative nature in order to accomplish a concrete project. Research has shown that projects of this nature facilitate interaction between students and between students and the teacher thereby creating an environment rich in spontaneous and meaningful language use. Research has also demonstrated an increase in motivation and in cognitive engagement in project-based learning environments (Germain & Netten, 2002). In particular, Turnbull (1999) found that projects provide favourable contexts for the construction of knowledge, basic principles and concepts. The teacher organizes a variety of related and sequential tasks which will equip students with both content and language tools necessary to complete the project successfully. According to Katz and Chard (2000), project-based learning features discussion, fieldwork, investigation, representation and display. At the beginning of the program the research-oriented projects start with simple themes and structures and as the students progress through the ICF program, the projects grow in complexity. The more complex the task, the greater the opportunity for the building of cognitive strategies.

NB's ICF program includes a final project for each unit and a series of mini-task projects leading up to each of these. For example, the final project for the second unit, "Nous, les Naufragés," is the creation of an album representing the inhabitants of the island. The album includes a pennant, a flag, a chant, a coat of arms, poetry, and interviews, all of which are mini-projects completed at various stages of the unit. Later in the program, in the unit entitled "Être en pleine forme," a recipe book is the final project. This book will contain "recipes" not only for good nutrition but also for physical activity and hygiene. The program is designed so that the more simple tasks and projects are completed in the earlier units and the more complex tasks and projects are found near the end of the program. For example the culture unit, the fifth of seven units in the program, asks the students to take an historical look at Acadian culture in order to better understand today's realities. This unit requires much higher-

level thinking and a deeper understanding of the language and content than the first and second foundation units which ask students to rely heavily on language and content knowledge many students may already partially possess. Many of the projects that have been developed in the NB Program Guide involve cooperative group tasks, another integral part of the ICF program.

1.2.4 Cooperative learning

The ICF program subscribes to the Vygotskian view that learning is a dynamic social process. As mentioned earlier in the description of the transdisciplinary approach, one of the key theoretic components of the ICF program is the link between interaction and cognition. One way to achieve interaction in a classroom is through the development of cooperative learning activities. High (1993) in consultation with Spencer Kagan, one of the experts in cooperative learning, explains that cooperative learning is firmly rooted in language acquisition theory in that it focuses both on the provision of comprehensible input (Krashen, 1982) and the opportunity for producing output (Swain, 1985). Well-designed cooperative learning tasks involve the negotiation of meaning within a communicative context, an essential process for effective second language learning. High (1993) also underlines another important aspect of cooperative learning- the creation of a supportive environment in which students can take risks and encourage and assist one another.

Apart from the principal goal of creating opportunities for interaction and language development, the developers of the ICF Program Guide had other goals in mind when creating cooperative learning activities. Cooperative learning activities provide a means of building interpersonal skills, encouraging good social dynamics and establishing a positive learning environment in the classroom. The initial activities in the document focus particularly on developing some of these crucial appropriate social behaviours conducive to learning. The expectation is that structured cooperative learning activities will provide the basic foundation for a well-managed classroom where students understand what is expected of them, what their roles are, what the rules are, thereby creating a language learning environment ripe for success. Cooperative learning activities can also be an effective means of integrating students with special needs.

This overview of the ICF program shows the unique nature of the program; a program in which the potential for interesting and meaningful research is evident. I will now discuss one study currently underway.

2. The research project

While the time-task relationship could be examined in a variety of learning environments, the ICF program provides a unique setting where time plays a critical role. As previously mentioned, while the time for French language learning is increased, the time for learning other curriculum areas is decreased. Both the nature of the tasks in ICF program and the theoretical suppositions set forth by Netten & Germain, lay the ground work for this study.

2.1 Time on task

Time on task research has traditionally focused on actual amounts of time and the effects of these varied quantities on achievement. Seminal work by Bloom (1974) Carroll (1963) revealed certain factors, including “engaged time”, which contributed to success in education settings. In the second language learning field, researchers (e.g., Lapkin, Hart & Harley, 1998; Turnbull, Lapkin, Hart and Swain, 1998; Collins, Halter, Lightbown & Spada, 1999; and Dicks, 1995) have investigated different sorts of programs with varying amounts of time on task in order to make correlations with language proficiency. Although many inquiries examined generally what students were doing during their learning time in a classroom setting, very few studies examined the complexities of exactly how the time was used. Shulman (1985) explained that for those who study time on task, time itself is the central factor but “for those who seek to fill the empty vessel of time with more descriptive accounts of what is happening in the minds of learners between input of instruction and the output of achievement,

a fuller account is needed" (p. 16). Time on task is not simply a matter of what is apparent on the surface (i.e., the amount of time specified to accomplish certain tasks), it also concerns what the learners are actually doing while engaged in a task. Recently, Zimmerman (2001) supported this sort of research direction stating that it is not time in itself that is important it is how that time is used that really affects achievement. This movement to uncover this issue of time on task by looking more deeply at the more qualitative aspects of time has not been greatly explored but seems to be gaining recognition.

There are two critical time-related issues in this study. First, time is increased for French language learning. Second, after the IF component of the program is completed, students take part in a compacted curriculum for the remainder of the grade five year. Thus, time for French language instruction is increased on one end while time for the instruction of other subjects is reduced. Research seems to indicate that achievement correlates positively with an increase in instructional time therefore can all objectives for grade five be achieved despite the apparent reduction in the time devoted to other subjects? The response to this question lies, in part, in the nature of the ICF's "transdisciplinary approach". It is hypothesized that students will be able to develop cross-disciplinary skills and strategies in the IF program and thereby achieve the same outcomes. It is important therefore to carefully examine the tasks in which students are engaged in the ICF program- the actual tasks in which the learners are engaged (the what) and the intellectual techniques or strategies used accomplish these tasks (the how). This latter component may be key to revealing the below the surface aspect of time on task and to discovering how learners can achieve the same outcomes in a reduced time frame. With this in mind, learning strategies will be the focus of the next section.

2.2 Learning strategies

The general topic of learning strategies, which includes research from cognitive psychology to the "good language learner," provides important insight into the specific topic of cognitive processes- the emphasis for this research project. Garner (1988) describes a strategy as a sequence of activities rather than one single event and she states that "strategies are generally deliberate, planned, consciously engaged in activities." (p. 64). Mayer (1988) makes a clear link between cognitive and educational psychology and learning strategies. "... Interest in studying learning strategies is based on... the premise that our schools should help students learn to successfully control their cognitive processes, including learning to learn, to remember and to think" (p. 11). He goes on to define learning strategies as behaviours used by the learner to influence how the learner processes information.

O'Malley and Chamot (1990) identified three major categories of learning strategies- metacognitive, cognitive and social and affective strategies. Metacognitive strategies involve thinking about the learning process; cognitive strategies relate directly to the manipulation and transformation of the learning materials; and social/affective strategies involve those strategies which facilitate interaction and control affect. As previously mentioned, Oxford (1990) has a similar system for categorizing learning strategies- metacognitive strategies, affective strategies, social strategies, memory strategies, cognitive strategies and compensation strategies. In particular, the cognitive strategies relate to the "transdisciplinary cognitive capacities" discussed by Germain and Netten (2002). These include practicing, receiving and sending messages, analyzing and reasoning, and creating structure for input and output. In this study, I am particularly interested in cognitive strategies and will therefore focus the discussion on that particular area of learning strategies. Prominent researchers (e.g., O'Malley & Chamot, 1990; Oxford & Crookall, 1989, Oxford & Cohen, 1992) in the area of language learning strategies describe learning strategies in a similar manner and include cognitive strategies in the repertoire of strategies a learner can use in various learning settings. In particular, they define cognitive strategies as those strategies that operate directly on incoming information, manipulating it in ways that enhance learning.

Scarcella and Oxford's (1992) description of language learning strategies is evidence of the main characteristics of general learning strategies- "specific actions, behaviours, steps or techniques used by students to enhance their own learning." (p.63). One particularly comprehensive article on language learning strategies discusses the many types of learning strategies and how these definitions affect

research in the area. In this article, Oxford & Cohen (1992) made an important distinction between "strategies and tactics." Although the term strategy appears more frequently in the literature, some researchers have use the term tactics to refer to these specific activities used by learners to accomplish a task. In fact, Seliger (1995) states that the use of the term strategy has reached a saturation point and that the term has become almost meaningless and describes tactics as the actual realization of strategies.

Using the work of several researchers including Schmeck and Seliger, Oxford & Cohen (1992) proposed a solution to this problem of semantics, by outlining an organizational table with the various strategies and their accompanying tactics.

Table: Possible Organization for Language Learning Strategies and Supporting Tactics (Cohen & Oxford, 1992, pp. 7-9)

Strategy	Tactics
1. Forming Concepts and Hypothesis	1. simplifying, overgeneralization, inferencing categorizing, comparing, contrasting, organizing, analyzing, reasoning, abstracting, creating conceptual frameworks (cognitive strategies)
2. Personalizing mental linkages	2. referring to oneself, creating personal examples, using images, linking new information to personal experience and prior knowledge- elaboration (cognitive strategies)
3. Testing Hypothesis	3. analyzing input, assessing feedback, consulting experts, asking for verification or correction (metacognitive and social strategies)
4. Embedding new material in long-term memory	4. repetitive rehearsing of information, using imagery, keyword technique, rhyming, acronyms, physical response, imitating, learning verbatim, formal practicing, functional practicing (cognitive strategies)
5. Understanding one's affective state	5. using positive self-talk, discovering one's own learning style and personality type, assessing one's feelings, using a diary, reducing stress through music, using humour (affective strategies)
6. Managing one's learning process	6. setting goals, evaluating progress, checking comprehension, testing ones knowledge, planning for language tasks, looking for organizing principles, organizing learning materials, previewing, looking for practice opportunities (metacognitive strategies)
7. Producing oral or written language while lacking adequate linguistic knowledge	7. gesturing, miming, paraphrasing, translating, substituting, restructuring, switching to native tongue, waiting to recall, avoiding certain structures, approximating message (communication strategies)

Cognitive strategies are a complex and extremely necessary part of learning in general and of learning a second language in particular. Research in this area has both defined and described strategies used by successful learners and by second language learners in general. It has also sought to

describe in detail the ways in which learners think and process their language learning experience. The research on learning strategies is significant to this study because it provides insight into the kinds of cognitive strategies that have already been identified in the language learning environment. It also forms a basis on which to base observations and other aspects of the data gathering component of the research.

The link between time on task and cognitive strategies is crucial to this study. In this respect, the present study builds on the work of Long (1983) who examined the specifics of how the time is used, and Tang (1996) who sought to uncover underlying processes. Time spent developing cognitive strategies that a learner can use in a variety of educational contexts may be key to making the best use of allotted time. In the ICF classroom context, teachers use a project-based approach and select tasks that contribute to language development of the students. As discussed in the section on ICF, tasks are organized from simple to complex and lead to the accomplishment of a certain project. With the increase in the complexity of the task comes the potential for the increase in cognitive strategy use and development. The time spent on tasks that cognitively engage language learners is a key part of this research. The transdisciplinary approach to second language teaching functions on the principle that students are developing "underlying proficiencies" in the ICF program which they can then use when studying their first language as well as other subjects. Therefore, if learners can, in fact, develop a wide variety of strategies in the ICF program, it may allow students to achieve the outcomes for grade 5 despite the fact that the time is reduced for specific subject area study. This study aims to uncover the sorts of strategies students are developing and using in the ICF program in order to help explain how students can achieve success in the compacted curriculum. Although the allotted time for subject matter instruction is cut in half, the theory of transdisciplinary approach supports the possibility for students to achieve all outcomes for grade five. This study contributes to the understanding of the transdisciplinary approach and how it makes curriculum compacting possible.

3. Research questions

This study examines the role of time in the ICF context in two ways. First it examines how time is being used in the first five months of the school year and in particular, examines the cognitive strategies used by students are engaged in order to accomplish various tasks. Secondly, this study seeks to uncover the cognitive strategies that may cross the boundaries of subject matter in order to discover how students are able to achieve all learning outcomes in a compacted time frame in the second part of the school year. In order to examine these links between time and cognitive strategy use, this study addresses the following questions:

1. What sorts of cognitive strategies are being used by students in the ICF classroom?
- 2a. Do activities that engage students actively in learning such as group projects, interactive reading and writing activities, artistic and dramatic tasks contribute more to the use of cognitive strategies than other types of activities?
- 2b. Do certain activities contribute to the application of particular cognitive strategies?
3. Are the cognitive strategies used in the ICF environment applied by students when approaching tasks in the compacted curriculum- i.e., Do cognitive strategies cross disciplines?

4. Research design

In order to address these questions, this study employs a qualitative case study approach (Yin, 1984; Stake, 2000; Merriam, 1998) incorporating classroom observation and interviews. The methodology is aimed at obtaining rich description related to the topic of cognitive strategies and is currently being collected from three perspectives in order to triangulate the data and increase its validity. The context for the data collection is the four pilot ICF programs in New Brunswick. The primary method of data collection, classroom observation, is aimed at capturing "observable" elements of cognitive strategies. In order to guide and facilitate the collection of field notes based on observation, I have developed an observation framework based on cognitive strategies as defined primarily by Oxford (1990), O'Malley & Chamot (1985), Dalgalian et al (1981) and Nisbet & Shucksmith (1986). Observations were also conducted when the students began the compacted

curriculum. Observations were complemented by both audio- and video-tapes of students involved in certain tasks. This data supports and more clearly defines the data collected through observational field notes. The students have also been asked to complete reflective journals related to their classroom learning and on a few occasions they will be asked to provide oral self-reports of their learning process. The third part of the data collection were interviews with each of the teachers in the four ICF classrooms. The interviews provide further insight, from the teachers' perspective, into the specific sorts of strategies that may relate to the different learning tasks organized by the teacher. The data analysis for this study will be based on what Yin (1984) refers to as a case study description focusing on a theoretical proposition and the theory underpinning this research is that of the "transdisciplinary approach." The analysis process will occur in two stages, the first stage being the organization and coding of the data and the second the interpretation of the data in terms of the research questions and theoretical framework (Merriam, 1989). I will now briefly discuss the results of some of the preliminary data analysis.

5. Preliminary results

The ICF component of the grade 5 school year finished at the end of January, 2003 and the students are presently engaged in the compacted English program. During the ICF program, I had the opportunity to observe the children in a variety of learning situations and have begun to make sense of the sorts of strategies employed and the effectiveness of various tasks. As described at the beginning of this paper, the program puts an emphasis on certain types of language learning activities. Although, the data analysis component of this study is in the early stages, I will briefly discuss some of the ICF activities and comment on the types of strategies students applied while performing these tasks.

5.1 Writing

The ICF program included many tasks that emphasized writing skills. In particular, journals were a part of the daily routine for most ICF classes. During journal writing I observed a variety of strategies being used by students and students also commented on strategies they used in writing. When asked how they deal with not knowing a word, students overwhelmingly said that they look in the dictionary. Although other strategies such as looking at posters, asking friends or asking the teacher, and guessing were also mentioned, dictionary use prevailed. One teacher commented on the positive aspects of this learning; "They know how to use a dictionary and you know kids in middle school don't! These kids know what context is now. They look in the dictionary and they know it's not that one because that one doesn't make sense. They can find something in context now and at first I don't think they thought there was more than one meaning for anything." Another teacher did not necessarily think that going to the dictionary was ideal for every situation; "I think they found the writing the most difficult. It is the hardest because of spelling and meanings. There are so many words that have different meanings in French. For instance, they will look up a word that does not have the correct sense in the way they are using it but the direct translation is correct. That is hard for them. [Student's name] used on in his headline – 'Santa stuck in the chimney. Père Noel baton dans la cheminée.' He looked up 'stuck' and found 'stick' and the first translation given was 'baton.' I would sometimes point these kinds of mistakes on the board- 'I am seeing people doing this- the correct way is...I know what you are saying but here is the better way to say it is...' Sometimes we correct it orally too while they are working on it."

For better or worse, this strategy, which falls under the category of "resourcing" was employed by all students at various points in the program and particularly during writing tasks. Resource use was not the only broad category of cognitive strategy used. In addition, observations revealed that "application" was another commonly used strategy. Students were able to apply learned rules as well as develop variations on models given for the writing task. For example, one journal entry appeared as follows: "Heir soir, j'ai jouer ballon paner avec Tom, Lucas et Ryan. Après je jouer mon ordinateur avec mon frère, nous jouer LNH 2000. J'ai gagne 6-3. Je pense." This student has attempted to use the past tense in two cases- trying to apply brand new learning to his journal entry. He is also revealing

the ability to make “links and associations” by using his world knowledge of the French acronym for the National Hockey League (League nationale de hockey- LNH). He is applying rules for accents (although incorrectly) for both the words “après” and “frère”- he knows the accents exist and he is making a guess as to which one is appropriate. The last statement- “je pense”- shows a departure from the model typically used for this type of journal entry (i.e. What did you do last night- Qu’est-ce que tu as fait hier soir?). He is using “problem solving strategies” by presenting his idea in a new way. In general, students had a higher degree of accuracy when given models for their writing but many were “trapped in the model” and had a hard time breaking away from the mold. In free writing, more errors were observed but the creative element was present. Many students relied on models of some kind and were often looking to the board for clues, asking a fellow student for guidance, looking on another student’s work, searching out vocabulary on the wall, and consulting their vocabulary books and thematic picture dictionaries for assistance with writing. All the teachers had some resources available for the students, the more the teacher facilitated the tasks, the more accuracy was evident.

5.2 Reading

Reading took various forms in the ICF program: silent reading, group reading, reading in pairs, as well as thematic reading comprehension activities (e.g., Biography of Celine Dion). Students became very adept at developing effective strategies to aid in reading. Teachers facilitated this by giving them hints as to how to get the general ideas from a text and how to tolerate ambiguity, an affective strategy noted by Oxford. “I did not give them a book to read until the middle of October but I read to them every single day. We started off with simple books but we quickly progressed to an average level book. I would read a page and then ask questions to make sure everyone understood. I always had [names of stronger students] who knew all the answers. They understood that they did not have to know what every word means to get the story- I told them that. “

In individual interviews with students in which I asked about reading strategies, they were able to tell me that they look at the pictures, look for words that resemble English (i.e., cognates but sometimes “faux-amis”), look for familiar words that they already learned as well as take guesses and make inferences based on their prior knowledge of the content. One student in particular told me “Je ne comprend pas ça mais... it doesn’t matter... je comprends, anyway.” Some students expressed greater tolerance for ambiguity than others. Teachers also identified strategies that they observed, “They learned reading strategies, that’s for sure, at the level of “tell me about what you read” and also predictions- “What do you think they will talk about in this book?” We call these “clues”- pictures, key words, etc.” (translation). Some students were able to borrow strategies from their previous reading experiences but many benefited from and some required “reminders” by their teacher.

5.3 Oral communication

As mentioned oral communication was an important focal point for the ICF program. Many teachers felt activities like “the warm-up” and games were the most effective tasks in terms of developing second language competency. One teacher emphasized; “The games were very effective because it was fun for them and they were able to get into it. If it is fun they are interested. They learn quite a bit from the games. Qui suis-je? They found it tough at first but soon they were asking some really good questions- you could really see the progress. Any of the oral activities seemed to be the most effective activities- the best ones.” In games such as “Qui suis-je?” (who am I?) and other guessing games, students had to solve problems, using analysis and reasoning strategies, and make guesses (inferencing) in order to successfully deduce the correct answer. During most games, strategies used by the students were emergent rather than instructed in nature although games sometimes gave teachers the opportunity to explicitly teach certain structures by encouraging cognitive strategies such as practicing and repeating. In one game, “Oeuf D’or,” students are “required” to repeat the structure “J’ai choisi” (I choose) + the number on the egg before allowing the team to receive their points. Also, although students used more spontaneous speech such as “Est-ce que je peux aller premier?,” they also were asked more analytical sorts of questions (e.g., spelling of words) and the teacher assisted them by giving them strategies such as referring them to past learning (e.g.,

“Rappelez-vous on a fait ça hier quand on parlait du journal”) or reminding them of similarities to English words (“C’est un peu comme le mot en anglais”).

As part of the data collection, I videotaped students engaged in various tasks. In one video clip two students demonstrate strategy use during student led “interview” time. One student was asked to describe her clothing and in the process of explaining, employed a resourcing strategy and looked at the clothing poster on the wall to find the word for “shoes” in French. In the same session, another student used a problem solving strategy to convey an intended meaning. In order to describe a day that he assessed to be a combination of cloud and sun, he used gestures (i.e., indicating with his fingers ‘a small amount’) to describe the weather, “Il fait du soleil- un petit peu.” He used a familiar expression (i.e., Il fait du soleil) combined with a recently learned structure in order to negotiate meaning. In games such as “Qui suis-je?” (who am I?) and other oral guessing games, students also had to solve problems as well as employing analysis and reasoning strategies and making guesses (i.e., inferencing) in order to successfully deduce the correct answer. Although the examples described in this section are only begin to fully describe the complex nature of cognitive strategies use in the ICF program, it does begin to show the potential for strategy use which crosses curricular boundaries. This paper will conclude with a brief discussion of the data collected revealing insight into this transdisciplinary nature of the program.

5.4 ICF program and the transdisciplinary approach

Although the focus of my research design is observation and field notes combined with interviews with teachers and students, I decided that feedback from parents and principals may also shed light on the program in a general sense as well as on some of the research questions. For the most part, parents’ comments focused on strengths and weaknesses of the pilot program including comments about the activities, the teacher and their child’s emotions surrounding the program. Many parents pointed to an increase in self-esteem and self-confidence as well as improved attitudes toward learning a second language as a perceived affective outcome of the program. Comments such as, “The positive thing is how it increased my child’s self-esteem” and “Self-confidence has increased, she continues to practice French at home, an increased desire to know more and more enthusiasm about learning French,” were frequently cited by parents of children in the ICF program.

In addition to these sorts of comments, some parents’ reflections related directly to this study. One general learning strategy that was mentioned by a few parents as a positive influence of the program was that of listening skills. “Learning the language and the development of better listening skills. Yes, I find my child is more attentive in class- she seems to have better listening skills and more confidence” (ICF parent). In a subsequent communication with a teacher in the compacting English program, this sentiment was echoed, “I also want to express my pleasure in seeing the keen listening skills that the students have in place. I am sure this is in part due to the French program.” (Teacher in ICF compacted English program).

A couple of parents made specific reference to cognitive learning strategies they felt were developed as a result of the nature of the ICF program. “My child had so much fun exploring the language this way... it allowed her to express herself and her creativity in many ways. The group work and projects have her the opportunity to explore, predict, invent.” Another parent also mentioned the element of “creativity” which was encouraged by both individual and group tasks in the program. “The program brought out creativity... he became more confident.” Projects such as creating a recipe book, a class newspaper, building a shelter, poster presentations on animals, creating and demonstrating a new game, writing a class song, designing a group emblem and making a “cultural quilt,” allowed various sorts of creative talents to emerge. In a conversation with a school principal, she noted that “the ICF program not only was successful in terms of learning French but that it also brought out the artistic talents of the students. The program really focused on the talents and interests of the students.” (Principal- ICF pilot school)

Other parents commented on the fact that they appreciated the focus on tasks that improved children’s social skills and cooperative learning strategies. One parent stated, “I liked the way the curriculum was delivered- students did a lot of projects and worked together- it built confidence.” Another reflection praised the program for its ability to encourage discussion; “The freedom to work in

groups and be able to communicate with each other without getting in trouble.” Another parent remarked on the positive influence cooperative learning had on their child in particular; “My child learned a second language at a basic level through structured group activities. His self-confidence was bolstered through helping others.” In conversations with the teachers, they all emphasized that their students had learned valuable lessons about working with others. “With the group projects, they learned how to work in a group, how to get along and share ideas but it also gives them that boost that they are not doing it all on their own and that they can rely on each other.” Another teacher affirmed that one of the “big pluses of the program was the construction of social skills. With cooperative learning students are always working with others. I have seen a big difference since September- shy children who now have a good self-esteem and are able to contribute in groups.” Another teacher makes a similar point but also comments on how it may help them in other educational settings. “They will be ready to do projects like [English teacher] will be doing in science. They know what is expected of them. They know how to work independently and cooperatively with projects. I think that will be able to transfer to the English program.” (Teacher- ICF program). This comments relates directly to the potential “transdisciplinary” nature of the ICF program and the possibility that skills and strategies are being used in the ICF program that could be applied in the compacted program. In addition to my classroom observations, parents and principals have made comments related to this theory.

Some parents spoke directly to the issue of how the program may have affected their children’s learning in the compacted curriculum. Although there were parents who still have concerns that their children may have difficulty reaching all the objectives for grade 5 because of the compacted nature of the English program, many did not see this as a concern at all and felt their child was “coping very well” in the English part of the year. Two parents made specific reference to the effect they feel the ICF program has had on their child’s literacy skills. “At the beginning we were concerned that his English skills and other subjects would suffer. We no longer have these concerns- if anything I was surprised at the fact that his English skills actually improved.” Another parent expressed that concern that in the initial stages they were worried their child might “loose out” but now they feel that “she hasn’t “lost” anything—in fact she seems eager to continue with ALL of her studies.” Once again, principals also had made observations on this topic. One principal put it this way; “the students and especially the struggling students, are carrying over their skills to the English program. Because they all came into ICF at the same level, they all had to do beginning literacy skills.” She felt these skills are ‘transferring’ and made reference to one student in particular who was reading at a grade 2 level and the fact that she is now writing in English whereas that was not the case before. “The emphasis on phonetics, although in the French language, is helping the struggling learners to refocus on phonetics in English.”

6. Conclusion

Early analysis indicates that in the NB ICF program students were exposed to a wide variety of inter-curricular tasks. These tasks not only involved “coverage of certain curricular outcomes” but the use of a broad range of learning strategies. In particular, students’ cognitive strategy use is apparent both in the ICF program and the compacted English curriculum. Students were exposed to tasks that required them to solve problems, make inferences, analyze, apply new knowledge, create links to past learning, and to create structure. The detailed analysis of the specific tasks that are more conducive to cognitive strategy use will reveal further insight into the transdisciplinary nature of ICF. This insight will further our understanding of how curriculum compacting is possible and how the critical time-on-task issues are played out in this program.

Appendix A- Strategy Framework/Observation Schedule

Adapted from the following sources: Oxford (1990), O'Malley & Chamot (1990), Scarcella & Oxford (1992), Seliger (1991), Oxford & Cohen (1992), Dalgalian et al (1981), Chamot & Kupper, (1989), Bialystok (1979 & 1983), Rubin (1975, 1981), Nisbet & Shucksmith (1986).

Practicing/ Repeating:

- reading a text several time
- saying a new word several times
- imitating someone else
- quoting/reciting/listing from memory
- rehearsing
- rhyming
- physical responses

Using resources:

- referring to models
- using reference material such as dictionaries

Analyzing/Reasoning:

- looking for specific details
- searching for patterns
- recognizing and using formulas or patterns
- translating
- transferring (using previously acquired linguistic knowledge to facilitate a task)
- analyzing contrastively across languages
- forming hypothesis
- creating conceptual frameworks
- simplifying/ overgeneralization

Application

- Substitution (selecting alternative approaches or plans)
- Comparing
- Development of new idea based on learning
- Reconstruction
- Deduction / Induction (consciously applying self-developed or learned rules)

Problem Solving

- Experiment
- Role play/dramatize
- Simulate
- Invent
- Present in a new way

Creating links and Associations/Elaboration:

- relating a concept to past learning
- personal elaboration (relating to personal experience)
- world elaboration (relating to knowledge of the world)
- academic elaboration (relating to learned experience)
- self-evaluation (monitoring/questioning new learning based on past learning)
- using imagery (relating concepts to mental pictures)

Creating structure:

- taking notes
- giving examples
- organizing notebook
- highlighting
- summarizing
- categorizing
- grouping

- classifying
- labeling
- ordering

Inferencing/Anticipating:

- previewing
- predicting
- filling in missing information
- planning
- guessing
- setting objectives

References

- Anderson, J. (1980). *Cognitive Psychology and its implications*. San Francisco: Freeman.
- Bialystok, E. (1979). The Role of Conscious Strategies in Second Language Proficiency. *Canadian Modern Language Review*, 35, 372-394.
- Bialystok, E. (1983). Inferencing: Testing the "Hypothesis Testing" Hypothesis. In H.W. Seliger & M.H. Long (Eds.), pp.104-123. *Classroom Oriented Research in Second Language Acquisition*. Rowley, MA: Newbury House Publishers.
- Billy, L. (1980). Expérimentation d'une nouvelle approche en immersion. *The Canadian Modern Language Review*, 36, 422-433.
- Bloom, B.S. (1974). Time and Learning. *American Psychologist*, 29, 682-688.
- Burstall, C. (1975). French in the Primary School: The British Experiment. *Canadian Modern Language Review*, 31 (5), 388-402.
- Carroll, J.B. (1963). A Model for School Learning. *Teachers College Record*, 64, 723-33.
- Chamot, A. U. & O'Malley, (1987). The Cognitive Academic Language Learning Approach: A Bridge to the Mainstream. *TESOL Quarterly*, 21 (2), 227-249.
- Chamot, A.U. & Kupper, L. (1989). Learning Strategies in Foreign Language Instruction. *Foreign Language Annals*, 22 (1), 13-24.
- Cohen, A. (1984). Studying Second Language Learning Strategies: How do We Get the Information? *Applied Linguistics*, 5 (2), 101-112.
- Cohen, A.D. & Hosenfeld, C. (1981). Some used of Mentalistic Data of Second Language Research. *Language Learning*, 31, 285-314.
- Collins, Halter, Lightbown, N. & Spada, N. (1999). Time and the Distribution of Time in L2Instruction. *TESOL Quarterly*, 33(4).
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49.
- Cummins, J. (1991) Language Development and Academic Learning. In L. Malavé & G. Duquette (Eds.), *Language, Culture and Cognition* (pp. 161-174). Clevedon, England: Multilingual Matters.
- Dalgalian, G.; Lieutaud, S. & Weiss, F. (1981). *Pour un nouvel enseignement des langues et une nouvelle formation des enseignants*. Paris: CLE International.
- Dicks (1995). *A Comparative Study of the Acquisition of French Verb Tense and Aspect in Early, Middle, and Late Immersion*. Quebec: Centre International de Recherche en Aménagement Linguistique.
- Garner (1988). Verbal-Report Data on Cognitive and Metacognitive Strategies. In C.E. Weinstien, E.T. Goetz & P. A. Alexander (Eds.) *Learning and Study Strategies: Issues in Assessment, Instruction, and Evaluation*. (pp. 63-76). New York: Academic Press, Inc.
- Katz, L. G. & Chard, S.C. (2000). *Engaging Children's Minds: The Project Approach*. Stamford, CT: Ablex Publishing Corporation.
- Knop, C.K. & Nerez, A.G. (1982). A Time-based Approach to Study of Teacher Effectiveness. *Modern Language Journal*, 66 (3), 243-254.
- Lapkin, S., Hart, D. & Harley, B. (1998). Case Study of Compact Core French Models: Attitudes and Achievement. In S. Lapkin (Ed), *French Second Language Education in Canada: Empirical Studies* (pp. 3-30). Toronto: University of Toronto Press.

- Lapkin, S., Swain, M. & Argue, V. (1983). *French Immersion: The Trial Balloon that Flew*. Toronto: OISE Press.
- Lang, J. (Chairperson). (1989). *The Minister's Review Committee on French Second Language*. Fredericton, NB: New Brunswick Department of Education.
- Leblanc, R., (1990). *National Core French Study- A Synthesis*. Ottawa, ON: Canadian Association of Second Language Teachers and M. Editeur.
- Long, D. R. (1983). *Time-on-Task in Beginning Students of Spanish at the University Level: A Case Study*. ED239514, ERIC clearinghouse on Language and Linguistics.
- Mayer, R. E. (1988). Learning Strategies: An Overview. In C.E. Weinstein, E.T. Goetz & P. A. Alexander (Eds.) *Learning and Study Strategies: Issues in Assessment, Instruction, and Evaluation* (pp. 11-22). New York: Academic Press, Inc.
- McVey, M. Bonyun, R. Dicks, J. & Dionne, L. (1990). *Early, Middle, or Late? Ottawa Board of Education Students in Three French Immersion Programs in Grade 6 and Grade 8*. Ottawa: Ottawa Board of Education.
- Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education*. San Francisco, CA: Jossey-Bass Publishers.
- Merriam, S. B. (1988). *Case Study Research in Education: A Qualitative Approach*. San Francisco, CA: Jossey-Bass Publishers.
- Naimen, N. Frohlich, M., Stern, H.H. & Todesco, A. (1996). *The Good Language Learner*. Clevedon, England: Multilingual Matters.
- Nisbet, J. & Shucksmith, J. (1986). *Learning Strategies*. London: Routledge.
- Netten, J. & Germain, C. (2002). *L'Apprentissage Intensif du Français: Rapport Final*. Ottawa, ON: Department of Canadian Heritage.
- Netten, J. & Germain, C. (2002). Transdisciplinary approach and intensity in second language learning/teaching. *Canadian Journal of Applied Linguistics/La Revue canadienne de linguistique appliquée*.
- Netten, J. & Germain, C. (1999). Une expérience de français intensif en 6e année. *La Revue de l'AQEFLS*, 21 (2), pp. 102-112.
- O'Malley, J. M. & Chamot, A. U. (1990). *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.
- Oxford, R. (1990). *Language Learning Strategies. What every teacher should know*. New York, NY: Newbury House Publishers.
- Oxford, R. & Crookall, D. (1989). Research on Language Learning Strategies: Methods, Findings, and Instructional Issues. *Modern Language Journal*, 73 (4), pp. 404-419.
- Oxford, R. & Cohen, A. (1992). Language Learning Strategies: Crucial Issues of Concept and Classification. *Applied Language Learning*, 3 (1&2), 1-35.
- Piaget, J. (1967). *Psychology of Intelligence*. Totowa, NJ: Littlefield, Adams.
- PricewaterhouseCoopers (2000). *New Brunswick Provincial Board of Education. FSL Program Review: Final Report*.
- Rehorick, S. (1993). *French Second Language Learning in New Brunswick Schools: Paradigms, Challenges and Strategies*. Fredericton, NB: Second Language Education Centre.
- Reiss, M.A. (1985). The Good Language Learner: Another Look. *Canadian Modern Language Review*, 41 (3), 511-523.
- Rubin, J. (1975). What the "Good Language Learner" Can Teach Us. *TESOL Quarterly*, 9 (1), 41-50.
- Rubin (1981). Study of Cognitive Processes in Second Language Learning. *Applied Linguistics*, 11 (2), 117-131.
- Scarcella, R.C. & Oxford, R. L. (1992). *The Tapestry of Language Learning*. Boston, MA: Heinle & Heinle Publishers.
- Schmeck (1988). Individual Differences and Learning Strategies. In C. Weinstein, E. Goetz, & P. Alterander (Eds.), *Learning and Study Strategies: Issues in Assessment, Instruction and Evaluation* (pp. 171-191). New York: Academic Press.
- Seliger, H. W. (1995). Strategy and Tactics in Second Language Acquisition. In L. Malavé & G. Duquette (Eds.). *Language, Culture and Cognition: A Collection of Studies in First and Second Language Acquisition*. (pp. 36-54). Clevedon: Multilingual Matters Ltd.

- Shulman, L.S. (1985). Paradigms and Research Programs in the Study of Teaching: A Contemporary Perspective. In M.C. Wittrock (Ed.), *The Handbook of Research on Teaching* (pp.3-36). New York: Macmillan.
- Stake, R. E. (1978). The Case Study Method in Social Inquiry. *Educational Researcher*, 7 (2), 1-8.
- Stake, R. (1980). Seeking Sweet Water- Case Study Methods in Educational Research. Audio recording. University of Illinois.
- Stake, R. (1988). Seeking Sweet Water- Case Study Methods in Educational Research. In R.M. Jaeger (Ed.), *Complementary Methods for Research in Education*. (pp.253-265). Washington, DC: American Education Research Association.
- Stake, R. (2000). Case Studies in Denzin, N.K. & Lincoln, Y.S. (Eds.) *Handbook of Qualitative Research*. (pp. 435-454). Thousand Oaks, CA: Sage Publications Inc.
- Stern, H.H. (1984). *French as a Second Language in New Brunswick: A Report on the Current Position and a Discussion on the Way Ahead*. Fredericton, NB: New Brunswick Department of Education.
- Stern, H.H. (1975). What Can We Learn From the Good Language Learner? *Canadian Modern Language Review*, 31 (4), 304-318.
- Strauss, A. & Corbin, J. (1998). *The Basics of Qualitative Research*. London: Sage Publications.
- Strauss, A. (1987). *Qualitative Analysis for Social Scientists*. Cambridge: Cambridge University Press.
- Tang, H. (1996). A Study on Reading Comprehension Processes in Chinese and English: Interdependent or Universal. *Connections*.
- Tremblay, R., Duplantie, M & Huot, D. (1990). *National Core French Study: The Communicative/ Experiential Syllabus*. Ottawa, ON: M. Editeur.
- Turnbull, M. (1999a). Multidimensional project-based teaching in French second language (FSL): A process-product case study. *The Modern Language Journal*, 83 (4), 548-568).
- Turnbull, M. Lapkin, S. & Hart, D. (1998). Time on Task and Immersion Graduates' French Proficiency. In S. Lapkin (Ed.), *French Second Language Education in Canada: Empirical Studies* (pp. 31-55). Toronto: University of Toronto Press.
- Vygotsky, L. S. (1962). *Thought and Language*. Boston, MA: MIT Press.
- Yin, R. K. (1984). *Case Study Research*. Beverly Hills, CA: Sage publications

ISB4: Proceedings of the 4th International Symposium on Bilingualism

edited by James Cohen, Kara T. McAlister,
Kellie Rolstad, and Jeff MacSwan

Cascadilla Press Somerville, MA 2005

Copyright information

ISB4: Proceedings of the 4th International Symposium on Bilingualism
© 2005 Cascadilla Press, Somerville, MA. All rights reserved

ISBN 978-1-57473-210-8 CD-ROM
ISBN 978-1-57473-107-1 library binding (5-volume set)

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Press.

Ordering information

To order a copy of the proceedings, contact:

Cascadilla Press
P.O. Box 440355
Somerville, MA 02144, USA

phone: 1-617-776-2370
fax: 1-617-776-2271
sales@cascadilla.com
www.cascadilla.com

Web access and citation information

This paper is available from www.cascadilla.com/isb4.html and is identical
to the version published by Cascadilla Press on CD-ROM and in library binding.