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Publisher's version / Version de l'éditeur:

Proceedings of the International Conference on Educational Leadership in Cultural Diversity and Globalization, April 8-10, 2008, Phuket, Thailand, 2008

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May 2008

* published in the Proceedings of the International Conference on Educational Leadership in Cultural Diversity and Globalization. Phuket, Thailand. April 8-10, 2008. NRC 49915.

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THE VELTIC HYPERMEDIA SYSTEM: FOR SCHOOL PRINCIPALS IN THE PROMOTION OF THE FRENCH LANGUAGE IN CANADA

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ABSTRACT: *In the Canadian context, the survival of French as a minority language, with the related issues of linguistic and cultural vitality, is a major concern. The French-language minority school systems in Canada are in a constant state of change because of the increasing cultural diversity of their students, their task in promoting the French language in an official-language minority setting (Gerin-Lajoie, 2006). Thus, are school principals well equipped to contribute to the promotion of the French language and Francophone identity construction? Few studies have taken up the challenge of investigating French-language vitalization through ethno-linguistic practices that support school principals in the promotion of the French language and Francophone identity construction.*

The goal of our research on the development of pedagogical objects (Van der Maren, 2003) consists of creating a catalogue of ethno-linguistic vitalization practices (elv practices) from principals, to distribute them in a hypermedia system of resources and to evaluate them. A pan-Canadian study was undertaken to document elv practices among 234 school principals. According to preliminary results, the majority of principals consider it useful to collect, in one site, all the elv practices put in place by other French school principals. This paper will present a five step approach for developing pedagogical objects in a hypermedia system of resources (<http://veltic.ca>).

Keywords: *French language, identity construction, research on the development of pedagogical objects, school principals, hypermedia system of resources.*

1. INTRODUCTION

In the Canadian context, the survival of French as a minority language, with the related issues of linguistic and cultural vitality, is a major concern. School principals in French-language minority schools must be attentive to the need to develop new approaches and strategies because of the prevalence of English as the main language of the Information and Communication Technologies (ICT) world, in the media (especially American media), and the high rate of linguistic assimilation (Landry, Deveau, & Allard, 2006).

Given the significant role of the French-language school as an instrument for reproducing the social characteristics of the minority community, it is surprising that little is known about the types of practices that principals can effectively put into place to foster the development of a French linguistic and cultural identity within the student body as well as within the professional staff. Few studies address the ethno-linguistic vitalization (VEL, the French acronym) practices which would make it possible for principals to promote their leadership in this field and to optimize conditions for quality teaching and learning in French. Landry (1999) defines ethno-linguistic vitality as the result of social factors that ensure that the linguistic community remains active and distinct in its contacts with other linguistic groups. In the context of this study, ethno-linguistic vitalization practices are defined as all actions (of an individual or group) that contribute to the cultural vitality of French-speaking minority communities. As such, documenting relevant practices is one objective of the study described in this article.

Our research on the development of pedagogical objects (Van der Maren, 2003) consists of creating a catalogue of ethno-linguistic vitalization practices (elv practices) from principals, to distribute them in a hypermedia system of resources and to evaluate them. Given the rate of language transfer from French to English in language contact situations in Canada (Landry, Deveau, & Allard, 2006), it is imperative to offer examples of strategies which can be used by the principals to promote the use of the French language. The next section will present the context of the *Canadian Francophonie* and the problem; the importance of the school as a context for cultural and linguistic reproduction, and the role of school principals.

2. CONTEXT AND PROBLEM

2.1 Context and the school, a place for cultural and linguistic reproduction

Francophone reality in Canada outside of Qu ebec remains relatively unknown and often misunderstood. Canada is made up of 10 provinces and 3 territories. Of the entire population, only 22% of Canadians speak French (Statistics Canada, 2006). Quebec is the only

province with a higher concentration of French speaking citizens, that is, 80% of the population speak French. As for the other provinces and territories, 33% or less of the population speaks French.

Lapointe, Langlois, and Godin (2005) summarize the political relations between Canada's two founding groups, namely French and English, and present a brief explanation of the Canadian context with regards to the constitutional rights of official-language minorities to receive an education in their language. First, francophone communities across Canada have had to survive through periods when French was banned as a language of instruction (e.g., Regulation 17, issued in Ontario, July 1912). Today, Francophone schools and school boards are a reality in all provinces and territories. Their language, culture and social rights are protected under section 23 of the *Canadian Charter of Rights and Freedoms* (1982).

Within this context, each province presents a different set of possibilities and constraints for its Francophone population, including the level of dispersal, size of territory and population mobility. For example, 500,000 French-as-a-first-language speakers represent less than 5% of the population in Ontario, generally living in Anglophone communities spread over an area of more than one million square kilometers. In New Brunswick, 250 000 French-as-a-first language speakers make up 33% of the total population (Statistics Canada, 2001). Francophones form a demographic majority in some communities in Northern New Brunswick whereas in the southern region of the province they are most often a minority with a greater incidence of language transfer to English. In Alberta, where Francophones account for 2.24% of the total population, French-language schools in Edmonton and Calgary are experiencing the greatest population boom of all schools. Indeed, in the fall of 2006, Edmonton's Conseil Scolaire du Centre-Nord saw its student population grow by 402 new students which translates into a 15 to 55% increase per school. In Eastern Canada, schools are experiencing rapid diversification, with many students having immigrated from Africa or Haiti. This rapid diversification has important consequences for the definition of the Francophone identity (Dalley, 2003).

2.2 Role of school principals

Lapointe (2005) and Hallinger (2005) demonstrated to what extent the leadership of the school principal can influence the atmosphere in the school and the classroom as well as in students' academic achievements. Where the entire school is concerned, the role of the principal is often considered essential in supporting the implementation of an innovation (Owens, 2004) and in facilitating the use of ICT (IsaBelle & Lapointe, 2003).

Gérin-Lajoie (2006) maintains that French-language schools located outside the province of Quebec in Canada have always played a primary role in maintaining the language and culture of the minority. For Bouchamma (2004), principals in minority contexts must work harder to ensure ethno-linguistic vitality. In recent years, growing Francophone immigration to Canada has added to the complexity of defining the Francophone community (Dalley, 2003). Thus we are

now faced with a view of the *Francophonie* (i.e., the worldwide community of French-speaking people) that is increasingly pluralistic and global. It is in a context hitherto unknown in minority-language communities that principals are now expected to participate in the vitalization process of their school communities and beyond. According to Allard (2000), the vitalization¹ of French-language minority communities depends mainly on education, training and on the capacity of its members to assert themselves and to lead. One is left to ponder what is available in terms of strategies to help principals in French-language minority schools accomplish their leadership role.

There are several examples of teaching activities for program developers and for assisting teaching staff (Gérin-Lajoie, 2001; Dalley and d'Entremont, 2004) however principals are left to develop a strategy for professional development for community vitalization on their own. In short, research on education in minority contexts is plentiful yet few have taken up the challenge of investigating French-language vitalization through ethno-linguistic practices, and for supporting principals in the promotion of the French language and Francophone identity construction. Thus, how can principals secure their cultural leadership role, especially in French-language minority communities, when so little support is provided?

3. THEORETICAL FRAMEWORK

Given the nature of the research problem and in order to attain our objectives, we have relied on literature on the development of pedagogical objects which offers practical solutions to a problem. Our research on the development of pedagogical objects aims to create a catalogue of ethno-linguistic vitalization practices from principals, to distribute the practices in a hypermedia system of resources and to evaluate them. For this purpose, we rely on a specific methodology by Van der Maren (1999, 2003) called "development research".

3.1 Research on the development of pedagogical objects

According to Van der Maren (1999; 2003), in applied educational research we find the following four issues: a nomothetic issue, a pragmatic issue, a political issue and an ontogenic issue. The pragmatic issue goes back to research on the development of pedagogical objects, where the objective consists of solving problems related to a practice by answering the «how» and «how to » questions rather than the «why» questions (Van der Maren, 2003). Hence, development research aims to find practical solutions in response to a need (Van der Maren, 2003).

¹ We use the term vitalization rather than vitality to underscore the ever evolving and constructed nature of ethno-linguistic communities as strong minorities disappearing. Vitality tends to communicate an end result or objective rather than the social process that is at stake.

3.2 The five stages of development research by Van der Maren

According to Van der Maren (2003), research on the development of pedagogical objects includes five stages which are represented in Figure 1.

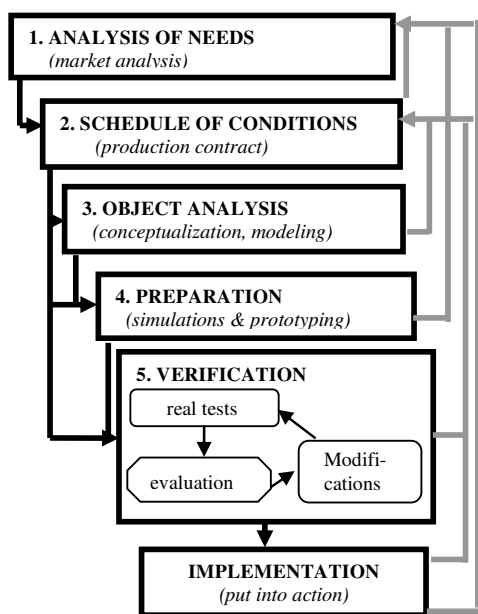


Figure 1: Five stages of development research by Van der Maren (2003)

Stage 1: Analysis of the needs

The researcher must conduct an in-depth analysis of the problem in order to determine if the identified problem could be solved by developing specific pedagogical material. This analysis will focus on situational needs, particular characteristics of the target population, and content. A review of the literature may also be included. In order for the material to be effective, one must be aware of the following:

Who will use the material and for what purpose?

What objectives will users need to achieve?

In what context will the material be used?

What will be the guidelines or instructions for use?

Finally, what preparation will be required before using the material?

An analysis of the user situation is essential since this will determine the schedule of conditions necessary for the success of the project. Better will be analysis of needs and more effective will be the schedule of conditions for use of the material. To ensure wide scale implementation, in addition to front line players, others need to be involved for their point of view and what insights they can bring to the problem situation. The value assigned to this pedagogical object will be directly influenced by the number of contributors involved in its evaluation.

Stage 2: Schedule of conditions

Often combined with the first step, the schedule of conditions describes the functionalities of the product to be developed. In addition to knowing the different resources necessary for the use of the pedagogical

object, it is important to outline who will be the users and even the necessary conditions for optimal use. One should also know the specific functions the pedagogical objects should fulfill, by whom or with whom, and under what conditions. One should also have some idea of the context of use.

Stage 3: Object analysis

This stage involves the analysis of knowledge available in the area, being able to synthesize one's knowledge and develop a general model of the pedagogical object. One must determine which elements are essential in terms of content and design.

Stage 4: Preparation and development of prototype

This stage consists of technical preparation and development of the «first» version of the pedagogical object.

Stage 5: Verification, evaluation and implementation

The prototype of the pedagogical object is put to the test, is evaluated and modified as required. Several evaluations can occur before arriving at a final product, and before being distributed to the context of use.

Accordingly, before proceeding to stage 3 in the development of an object a thorough field investigation was conducted.

4. RESEARCH GOAL

The goal of our study consists of helping principals by creating a catalogue of *elv* practices (pedagogical object) collected from them and distributing the practices in a hypermedia resource system. In developing this system we want to help francophone school principals in French-language minority contexts in the promotion of the French language, in identity construction in their school, and in the promotion of ethno-linguistic vitality in their community. For this, we will follow the five stages of development research by Van der Maren (2003).

5. METHODOLOGY

5.1 Stage 1: Analysis of the needs

Analysis of needs from French-language principals and vice-principals.

Participants:

The first phase of the study was carried out with all French-language principals and vice-principals in nine provinces (Quebec was excluded) and the three Territories (Nunavut, Yukon and the North-West Territories).

Empirical approach and data collection instruments:

One measurement instrument was used to evaluate the need to catalogue the existing ethno-linguistic vitalization (*elv*) practices: a questionnaire. The questionnaire on *elv* practices for principals, developed to meet the needs of the study, contained six sections. For the purpose of this paper, only sections that pertain to the results reported will be presented. The first section involved the identification of the principal or vice-principal. In the second and third sections of the questionnaire, principals answered questions related to the sociolinguistic characteristics of their school and on

the knowledge and skills used to promote French and identity construction, in their school and in their community. The fourth section included questions which addressed the usefulness of gathering in one hypermedia resource system *elv* practices put into place by other principals. Finally, the last section of the questionnaire addressed their interest in participating in a semi-structured interview.

Procedure and participants' profile:

The questionnaire was administered in March 2006 to school principals and vice-principals from French-language minority schools in Canada in the nine provinces and three Territories. In April 2006, a second call to participate was sent out. Principals could complete the questionnaire online or fill out the paper version and return in by mail. Of the 831 questionnaires sent out, seven were returned by Canada Post for unspecified reasons. These were all from Ontario.

5.1.1 Results of phase 1

Techniques for data analysis

The quantitative data were processed and statistical analyses carried out using the software package SPSS (Statistical Package for Social Sciences). Frequency distributions for answers were expressed in percentages and averages were calculated.

Participants' profile

In total, 234 principals answered the questionnaire, 29.1% completed it online and 68.9% completed the paper version. From this number, there were 116 women and 113 men, and 5 who did not identify their gender. Table 4 presents the distribution of respondents by province and territory (refer to end of the article)¹.

According to the data in Table 1, the age of the respondents is well distributed according to the four categories of age from 35 to 54 years. Twenty-seven percent of respondents are in the 30-39 age categories. Forty four percent are in the 40-49 categories, and 27% are 50 and more.

Table 1. *Frequency and percentage for school principal's age*

Age (years)	Frequency (n)	Percentage (%)
30 to 34	23	9.8
35 to 39	41	17.5
40 to 44	60	25.9
45 to 49	42	17.9
50 to 54	47	20.1
55 and more	17	7.3
Missing values	4	1.7
TOTAL	234	100

The data in Table 2 reveal that 21.4% of respondents had not occupied a school principal's position or had not yet completed a first year as school principal. Forty-two percent had between one and five years of experience and 24% had between six and ten years of experience as principal or vice-principal of a school.

Table 2. *Frequency and percentage for number of years in principal's role*

Years principal as	Frequency (n)	Percentage (%)
0	50	21.4
1 to 5	99	42.3
6 to 10	54	24.1
11 to 15	18	7.7
16 to 20	5	2.1
21 and more	3	1.3
Missing values	5	2.1
TOTAL	234	100

Perceptions regarding the utility of gathering ethnolinguistic vitalization (elv) practices:

In order to assess the importance of creating a hypermedia resource system to distribute catalogued *elv* practices, school principals were invited to share their perceptions regarding its usefulness. According to the data in Table 3, the majority of principals found it useful or very useful to gather *elv* practices by other principals in **their** province (92%) and **other** provinces (85%) in one site. These results clearly indicated that we could continue with the development of the hypermedia system. In addition, the proposal for development of the hypermedia system was evaluated in other instances, an expert committee made up of either professors, researchers in the field and in order to receive funding from SSHRC². Hence, we can attest that the analysis of needs has indicated a need for the development of the hypermedia system.

Table 3. *Number, percentage, average and standard deviation of school principals' perceptions regarding the utility of gathering elv practices in one site*

Utility of gathering <i>elv</i> practices in one site...	a) practices from French-speaking principals in my province	b) practices from French-speaking principals from other provinces
1	n	0
	%	0
2	n	2
	%	1.1
3	n	53
	%	28.3
4	n	119
	%	63.6
n/a	n	13
	%	7
Total	n	187
	%	100
AV		3.42
SD		1.05
Missing values		47

Legend: 1) Strongly disagree to 4) Strongly agree, n/a not applicable

² We sincerely thank the Social Sciences and Humanities Research Council of Canada for support granted within the Official Languages Research and Dissemination Program and Rodrigue Landry from The Canadian Institute for Research on Linguistic Minorities.

After the analysis of needs, the next stage consists of preparation a schedule of conditions.

5.2 Stage 2 : Schedule of conditions

The schedule of conditions describes the functionalities of the product to be developed. Therefore, several elements were taken into consideration. The VELTIC hypermedia system will :

- 1) Serve all the franco-canadien school principals who want to promote French and identity construction for the youth and adults, in the school and community;
- 2) Will permit diffusion of elv practices that are easy and simple to use;
- 3) The *elv* practices will be collected from principals in franco-canadien schools.

5.3 Stage 3: Object analysis

The results of the analysis of needs indicate that the principals find it useful to have access to practices from principals in their province and from other provinces as well. Hence, the *elv* practices collected from principals will present the «what» and the «why» and will provide examples. In addition, a page with definitions of principal terms such as ethno-linguistic vitalization, identity construction, will be provided.

The *elv* practices will be categorized in the system by:

- province and territory,
- category of *elv* practices,
- name of school principals.



Figure 2: Interface of veltic.ca

5.4 Stage 4 : Preparation and development of the prototype :

This stage consists of technical preparation and development of a prototype of the «first» version of the pedagogical object.

elv practices from school principals

In order to collect *elv* practices, interviews were conducted by telephone or in person with principals who

agreed to continue to participate in the study and wanted to share more about their practices. The majority of the interviews were recorded with video or audio only. The interviews were conducted from May 2006 to April 2007. The semi-structured interviews consisted primarily of asking for details regarding the practices they mentioned in the questionnaire. The interviews made it possible for the participants to elaborate on certain *elv* practices considered relevant to the study. The questions included explaining more about their practices and when they were actually implemented.

Fifty principals from seven provinces and one territory agreed to take part in the interview allowing us to ask questions about the details of their practices. From the answers obtained in interviews, more than 150 practices were catalogued and classified under seven different categories. For example, categories of practices included *projects which maximize the use of ICT, community-based projects, cultural productions, exchanges between the pupils in other schools and other provinces, learning activities in the school and in the classroom, changes in the physical plant, as well as practices which highlight local activities related to national or provincial events.*

Rejected practices

If the majority of the catalogued practices develop French language skills, it was decided that certain others could be eliminated, such as rewards for speaking in French and punishments for speaking in English at school. Here are a few examples, *French contest and punishment for students who speak English.* Instead, this type of practice is associated with more coercive forms of behaviour modification which tend to exclude rather than include, and to silence rather than give a voice (Lee, 2003).

Communication tools

It is also expected that principals will implement practices from other principals and will communicate with each other to discuss the importance of promoting the French language. Thus, communication tools will be offered in the system, such as forums and chat tools.

5.5 Stage 5 : Verification, evaluation and implementation

Some practices are already available in the hypermedia resource system at <http://veltic.ca>.

Next stage: evaluation

The next stage which will evaluate the impact of the practices used by principals is crucial since it will allow us to determine not only whether the practices that were gathered and distributed were consulted but whether they were in fact implemented.

School principals will be interviewed in order to answer the following questions:

- 1) Did they consult the hypermedia resource system?
- 2) Did they try to implement certain practices?
 - a. if so, which practices did they choose and why?

- 3) Did they observe any changes in attitudes and behaviours in the students, teacher and parents?
- 4) Did they observe any changes in their ways of promoting the French language and identity construction in their school and community?

6. CONCLUSION

In conclusion, the final phase which will evaluate the impact of the practices used by principals is crucial since it will allow us to determine not only whether the practices that were gathered and distributed were consulted but whether they were in fact implemented. Part of this final stage will evaluate whether or not the practices put into place actually support principals in taking on a more active leadership role in responding to the challenges brought on by social change and French-language minority status. This leadership entails creating optimal conditions for quality teaching and learning in French; with measures to guarantee a significant learning experience for all and success for French-speaking students in particular.

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Figure 3: Interface of research by provinces of veltic.ca

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ⁱ **Table 4.** *Number of principals and vice-principals who received a questionnaire and number and percentage of responses by province*

Province and Territory	School Principals	Vice-Principals	Total	Number of schools	Number of responses	%
AB	29	8	37	29	9	3.8
BC	36	16	52	38	4	1.7
PE	6	5	11	6	3	1.3
MB	22	11	33	22	20	8.5
NB	94	94	191	98	52	22.2
NS	15*	7	22	15	7	3.0
ON	337 **	110	454	369	120	51.3
SK	12	2	14	12	11	4.7
NL and Labrador	5	1	6	5	2	0.9
NU, NT, YT***	5	0	5	5	2	0.8
Missing values					4	1.7
Total	561	254	826	599	234	100

*We received authorization to distribute the questionnaires in 15 out of 19 schools in this province.

**We decreased the number by six because of the six questionnaires returned by Canada Post.

***To ensure the confidentiality of respondents, we combined the three territories.