# University level immersion: Students' perceptions of language activities

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#### Résumé

This article first presents a brief historical overview of immersion and a summary of research at the university level as well as the qualitative methodology used in our present research. It then describes the results of our study on immersion pedagogy at the post-secondary level: participants included 22 immersion students registered in four lower- and higher-level adjunct classes at the University of Ottawa in Canada, two in psychology and two in political sciences. Through focus group discussions these students described the different language activities and gave their perceptions of the usefulness of the activities for mastering both the content of the discipline course and the required language skills as well as how enjoyable they found them. Results reveal that students did mostly the same language activities based on reading, listening, writing, speaking, and vocabulary building. Students distinguished between the usefulness of an activity for mastering content course material and for learning the second language. They may or may not have enjoyed doing the activity regardless of how useful they found it. In general the lower-level students tended to be slightly more positive about their activities than the higher-level students.

#### Résumé

Cet article propose premièrement un bref rappel historique de l'immersion et des recherches menées au niveau universitaire et décrit la méthodologie qualitative suivie pour mener cette présente étude sur l'immersion au niveau post secondaire. Puis, il présente les résultats de quatre groupes de discussion avec 22 participants provenant de quatre cours d'encadrement linguistique de premier et de deuxième niveau dans deux disciplines différentes, la psychologie et les sciences politiques à l'université d'Ottawa au Canada. Lors de ces discussions, les étudiants ont défini les différentes activités linguistiques et indiqué leurs préférences et leurs perceptions de l'utilité de ces activités pour leur apprentissage de la langue seconde et de leurs cours disciplinaires. Les résultats ont également révélé que, peu importe le niveau, les étudiants accomplissaient les mêmes activités reliées à la compréhension et à l'expression de l'écrit et de l'oral et au développement du vocabulaire. Ces résultats soulignent les différentes perceptions qu'ont les étudiants de l'utilité des activités, que ce

soit pour l'apprentissage de la langue ou du contenu disciplinaire. Les étudiants ont également indiqué leur préférence pour certaines activités indépendamment de leur utilité. En général, on remarque que les étudiants du premier niveau sont légèrement plus positifs que les étudiants du deuxième niveau.

#### Introduction

When new programs are introduced, it is prudent to conduct program evaluation to examine their effectiveness in meeting program objectives. Researchers may focus on student enrollment, the drop-out rate, the target population and students' success in meeting the goals of the program. With the revival in 2006 of the adjunct immersion model at the University of Ottawa, in the form of *French Immersion Studies* (FIS) with its forty courses each term, a large-scale program evaluation (Ryan, Courcelles, Hope, Buchanan and Toews Janzen, 2007; Ryan, Gobeil, Hope and Toews Janzen, 2008) was undertaken in the first and the second year of its operation, to determine whether the program was being delivered as intended to the appropriate population.

Subsequent evaluation (Weinberg, Burger and Hope, 2008) focused on the students' point of view regarding the language activities carried out in the adjunct courses, which are language support courses for Anglophone students taking the immersion discipline courses. For this evaluation, in November 2006, 172 students registered in the FIS were surveyed to investigate their level of satisfaction. This survey was based on a previous Likert-scale questionnaire developed by Ready and Wesche in 1992 to evaluate the University's earlier content-based instructional program. It provided quantitative information about language activities from all the students registered in the program and showed that students were generally satisfied with their immersion and adjunct language courses.

Our present study, concerned with similar issues, used a qualitative methodology involving construct analysis developed through student focus groups. Participants were 22 immersion students from the University of Ottawa registered in lower- and higher-level adjunct classes, in two different fields of study: psychology and political science. This study examines the students' perceptions of different language learning activities that they participated in in adjunct language classes, as these activities were defined and discussed by them. It offers an interpretation of students' perceptions, the implications of this research for the adjunct language teachers, a discussion of the advantages of the methodology in contrast to previous survey studies and new directions for future research.

# Overview of Immersion

The success of school immersion programs begun in the 1970's, in which children received part or all of their instruction through a second language, has been well documented (Lapkin, Swain and Argue, 1983; Genesee, 1987, 1992; Harley, Cummins, Swain and Allen, 1990; Rebuffot, 1993; Lyster 2007). This success coupled with the influence of Krashen's (1982, 1984) theory of comprehensible input for language learning emphasizing the importance of comprehension in language learning, and the concurrent language across the curriculum movement (Metcalf, 1993), all contributed to an interest in content-based language instruction at the post secondary level.

Brinton, Snow and Wesche (2003) described the characteristics of three models of post-secondary content-based second language instruction: theme-based, sheltered and adjunct. In the theme-based model, the language teacher is the main actor and teaches both language and disciplinary content. The specific content of the course is the context for language development and teaching. In the sheltered format the professor is mainly a subject specialist but is able to teach in the students' second language. The content course is restricted to second language students and tailored to their language capabilities and needs. On the other hand, in the adjunct format, second language students are placed in content courses with native speakers and attend a linked adjunct language course designed to address their content course needs and develop their language skills. The subject specialist and the language specialist collaborate in teaching in the adjunct model.

Content-based language instruction spread to many sites around the world — Finland for Swedish, Wales for Welsh, Catalonia for Catalan, Basque countries for Basque, Canada for Ukrainian and Cree, Germany, Hungary, Singapore and Hong Kong for ESL, New Zealand for Maori, Australia for French, Hawaii for indigenous languages, and the United States for French and Spanish (Johnson and Swain, 1997; Stryker and Leaver, 1997). At the university level in the United States this has often taken the form of partial immersion or Foreign Languages across the Curriculum (FLAC) (Jurasek, 1993; Metcalf, 1993). In Europe, The Bologna Declaration (1999), whose goal was to establish a European Higher Education Area within the different countries of the European Community, introduced a new degree structure, encouraged mobility of students, teachers and researchers, established a reciprocally recognized credit system, stressed plurilingualism and multiculturalism, and introduced the notion of quality assurance. The Content and Language Integrated Learning (CLIL) approach has emerged from deliberations resulting from the Declaration.

Post-secondary content-based or "immersion" programs began to appear in Canadian universities in the 1980s. Between 1985 and 1995, the University

of Ottawa offered a small number of immersion courses following, at first, the sheltered model and later, the adjunct model (Burger, Wesche and Migneron, 1997). After a hiatus of a number of years, the University of Ottawa has since developed an extensive immersion program for French and several courses for English as a second language that are taught following the adjunct model. Graduates of French immersion programs in the school systems of Canada and any others who have attained a sufficiently high level in French have the opportunity to continue their disciplinary/content studies in that language. Immersion courses are also currently offered in other Canadian universities (Simon Fraser University, the Faculté St. Jean within the University of Alberta, and York University).

#### Previous Research

The focus of immersion research in Canada has been mainly on primary and high school programs. Since 1963 there has been a plethora of studies in Canada and beyond on the many variations of delivery of immersion programs; the educational stage at which students begin the immersion program—early, middle, late or post-secondary level; the type of language — second, foreign, or heritage language; and the amount of instruction given in the first language compared with the amount given in the second language (Genesee, 1987; Swain and Lapkin, 1982; Tardif and Gauvin, 1995; Johnson and Swain, 1997; Lyster, 2007). In Europe, research has also focused on immersion but again at the primary and secondary levels (Gajo, 2007; Duverger, 2000). Some researchers in Europe (Räsänen and Klaasen, 2006; Gajo, 2007; Greere and Räsänen, 2008) have focused on the theoretical framework of and rationale for the integration of language learning within content, CLIL, at the university level. They are interested in the continuum from non-CLIL to CLIL programs across different institutions. The importance of developing research on language outcomes and motivational aspects at the university level is stressed but to date no empirical research has been reported.

A good description of the early content-based language instruction program at the University of Ottawa and a summary of research findings can be found in Burger et al. (1997). Research was done on post-secondary immersion courses at the University of Ottawa during the 1980s. Among the many studies, the first examined language gains in sheltered language classes. The researchers found that students in sheltered language classes taught in their second language who successfully completed the related content course made gains in language comprehension equal to or greater than those of students with similar second language proficiency in a regular L2 course (Edwards, Wesche, Krashen, Clément and Kruidenier, 1984). Subsequent research on adjunct language course learners showed that students were able to cope with their content course while displaying gains in comprehension skills and expressing greater

confidence in their L2 proficiency than students in regular L2 classes (Hauptman, Wesche and Ready 1988). Other studies focused on gains in oral production (Burger and Chrétien, 2001) and written production (Burger, 1989).

A further study (Ready and Wesche, 1992) focused on language teaching techniques in five adjunct language courses linked to five different disciplines in French as a second language and in two similar courses in English. Information was gathered through a questionnaire distributed to all students registered in the courses. At the time there were no clear objectives for the language courses and the language teachers appeared "to be doing what the students most needed to effectively master the subject matter and succeed in the content course" (p. 401) Thus, many different activities were carried out in the different adjunct courses. The review of lectures in the language class to master subject matter received a very positive response in all adjunct courses. This activity was seen as useful for language learning only by the history and psychology students. There were few other activities in the adjunct courses which were seen by students as being useful for content learning whereas many others (supplementary readings, oral presentations, discussions, writing exercises and informal grammatical correction) were considered useful for language learning. Researchers found that:

the pattern for each language course appears to be largely determined by the particular content-learning demands of its paired subject-matter course, and most obviously, by the criteria on which students will be marked in the subject-matter course (e.g., mastery of factual information from readings for a multiple choice exam as opposed to the capability of presenting original written syntheses or a research paper). (Ready and Wesche, 1992, p. 401)

# Context of the current study

The bilingual University of Ottawa has implemented FIS, a full-scale French academic stream, to provide opportunities for students with relatively strong second language proficiency to improve to the point where they can function in courses with native speakers. The University now offers 30 immersion content courses each term accompanied by 40 language support courses which follow the adjunct immersion model. Each immersion course is a regular three-hour-per-week course presented in French for French-speaking students but also made available to FLS students. Immersion courses are offered by different faculties such as social sciences, arts, administration, nursing, and law. For

<sup>&</sup>lt;sup>1</sup>The Vision 2010 document (web5.uottawa.ca/vision2010/major-directions-goal\_1. html) delineates the University of Ottawa's priority of showing leadership in promoting Canada's official languages.

<sup>&</sup>lt;sup>2</sup>Some content courses are associated with two different language support courses: receptive skills and productive skills.

each immersion content course there is a 3-credit 90-minute-per-week adjunct course with language activities based on materials from the content course.

At present adjunct courses are offered at two levels. The lower-level courses focus on receptive skills (listening and reading), while the second-level courses concentrate on productive skills (speaking and writing). The objectives for the lower-level courses are "to develop the student's capacity for comprehension in the second language and therefore help the student to better understand the content of the discipline course" (Weinberg and Burger, 2007, p. 13). For the higher-level courses, the objectives are "to develop the students' capacity for oral and written production in the second language and so help them to gain confidence to express their ideas in French" (p. 14). Students are placed in the lower-or higher-level courses according to their results on an institutionally-validated placement test.

The current investigation, a follow-up study to the Weinberg et al. (2008) study, carried out by means of focus groups involving 22 immersion students registered in four adjunct language classes, examines learner perceptions of different language activities used in the language classes linked to two different discipline courses, psychology and political science. These courses were selected because they are representative of two distinct styles of content delivery and evaluation. In the psychology course, an introductory textbook is used. In this book, the material is highly signalled, reinforced with tables and graphs and illustrations and summarized with study questions at the end of each section. Lectures provide reinforcement through repetition of the written material accompanied by PowerPoint slides which facilitate comprehension of their lectures. Readings in the political science course, on the other hand, are research articles written by different authors and thus represent a greater challenge to second language readers. Political science lectures tend to be denser, provide more new information and in some cases are unsupported by visuals. The method of determining a final grade in these two courses differs greatly, even though both courses are offered by the same Social Sciences faculty. In the psychology course, 100% of the students' final grade comes from three multiple choice examinations worth, respectively, 25%, 25% and 50%. Thus, comprehension (and subsequent recognition) of the subject matter is the core language requirement. In political science, the students' final grade is based on a combination of essay writing (20%), group discussions (20%) and a mid-term (20%) and a final exam (40%), both requiring short and long written answers, thus necessitating stronger productive language skills.

Keeping in mind the findings of Ready and Wesche (1992) and in view of the striking differences between the content delivery and evaluation requirements of the psychology and political science discipline courses, the researchers decided, with their limited resources, to focus on these two groups of students for the current study. Furthermore, it should be noted that, in the

current immersion situation, language teachers now have clearer objectives for their teaching. There are 2 levels of language courses which must by nature influence the types of activities chosen by the language teachers as they seek to meet the course objectives and yet link their teaching to each particular content course. Thus, it seems useful to revisit the issues of the Ready and Wesche (1992) study to investigate whether students at the two different levels note differences in the usefulness of various language activities for content-learning or for language-learning.

In the current study, researchers chose to use focus groups and construct analysis to look more closely at the activities, obtain a description of what took place in class and examine the usefulness of the various activities as defined and perceived by the students.

Thus, the present study set out to address the following research questions:

- 1. What language practice activities are carried out by students in each course; how do they perceive them and how useful do they find them for language learning and content learning?
- 2. Are there differences between how the students registered in the lowerand higher-level adjunct classes perceive these activities?
- 3. Are there differences between how the students in psychology versus political science perceive these activities?

# Methodology

In this study a qualitative approach was used and data were collected through focus group discussions with students. In our previous quantitative research (Weinberg et al., 2008) on language activities used in immersion classes, a concern arose that students were blurring their responses between their content and adjunct language courses. It was hoped that by using a participatory qualitative focus group approach the evaluation criteria would be developed by the students themselves and their results and ideas would be based on a clearer understanding of the goals of the study.

# **Construct analysis**

The Social Domain technique, a tool of Social Analysis System (SAS<sup>2</sup>) based on the techniques of the Personal Construct Analysis approach (Kelly, 1955), was used in this study because of its collaborative and participatory character. The approach was first used in psychology, and then was adapted for use in social analysis (Chevalier and Buckles, 2008) and in education (Bourassa, Philion and Chevalier, 2007; Peters, Chevrier, Leblanc, Fortin and Kennedy, 2007; Philion, 2007).

In the Social Domain technique, a question is posed to a focus group. This is discussed and all participants define and reach a consensus on several differ-

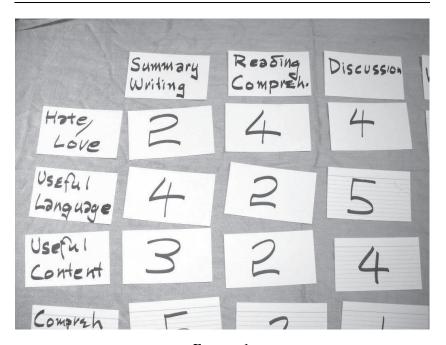


FIGURE 1

One of the repertory grids developed by the students

ent aspects or "elements" that make up their response to that question. These elements represent the columns in the repertory grid as can be seen in Figure 1 or in Tables 2 and 3. The participants are then asked to compare three elements to describe what is common or different among them. Through this process of comparison, the students create evaluation criteria, referred to as "constructs". These become the rows in the grid, again as shown in the example in Figure 1 or in Tables 2 and 3. Finally, for each element and construct, the participants have to agree on a Likert scale evaluation. The research issues are therefore understood based on elements and constructs developed and precisely evaluated by and for the participants. The completed grid can then be analyzed.

# **Participants**

A flyer inviting students to participate in the study was distributed in their adjunct classes. The interested students came to one of the four sessions, completed a demographic questionnaire, and then participated in a focus group discussion to develop elements and constructs to be used for the analysis. The students were given a small honorarium for their participation. The project was reviewed and approved by the University of Ottawa Ethics Committee.

Four focus group discussions took place during the 2008 spring session.

	Number of	Psychology	Poli Sci		Year	
	students	students	Students	First	Second	Third
FLS 2581 PSY	5	5	0	5	0	0
FLS 3581 PSY	7	4 + 1*	2 + 1*	2	5	0
FLS 2581 POL	3	0	3	1	1	1
FLS 3581 POL	6	1	5	2	4	0

TABLE 1

Distribution of students in the focus group discussions

Table 1 shows the makeup of the groups according to language level and subject area. The first-level FLS 2581 PSY group was composed of five psychology students and the FLS 2581 POL group had three political science students. Thus, at the lower language level, conclusions could be drawn regarding differences related to the respective courses. However this distinction was less clear at the higher level. The FLS 3581 PSY group was composed of four psychology students, two political science students, and one student enrolled in both courses. The FLS 3581 POL group was composed of five political science students and one psychology student.

Participants were mainly in the first and second year of their studies. All were women except for one man in FLS 3581 PSY. The average age was nineteen years old.

Not all students registered in the FLS adjunct immersion courses participated in the research focus groups. Only those interested in participating in the focus group discussions volunteered to come and discuss their satisfaction with class activities and their perception of their usefulness for both learning the language and for learning the content course material.

### Data gathering procedures

Each focus group session followed the same protocol (see Appendix). At the beginning of the session, the students were asked: "What language activities did you do in your adjunct language class?" ('Quelles sont les activités linguistiques que vous avez faites dans vos cours d'encadrement linguistique?'). Blank file cards were distributed to each student and they were then asked to list a maximum of ten language activities — one per file card. For example, one student might write "text summary", another might write "résumé of texts". Assisted by the research assistant, the whole group of students organized all similar categories into nine agreed-on elements. The file cards were arranged as column headings in a row across a table.

At this point, the research assistant introduced the three constructs proposed by the researcher, one at a time; **hate/love**, as an index of their per-

<sup>\*</sup>One student was taking both psychology and political science.

ceptions of their enjoyment; useless/useful for learning the language; useless/useful for learning the content course. Each construct card was then placed on the table at the beginning of the row. As each construct was proposed, the students discussed each element (language activities) and eventually had to agree on a Likert evaluation, from 1 (least appreciated) to 5 (most appreciated). That score was noted on the corresponding card which was placed in the appropriate column and row as shown in the example in Figure 1.

When time permitted, the participants suggested some other constructs and these are listed below but were not included in this analysis. For example, **oral/written comprehension** was proposed by three groups but this construct was not particularly useful or discriminatory. The construct **worked on collectively/worked on individually** was proposed by only one group. Only the constructs mentioned by all four groups could be analyzed.

These focus group discussions were recorded and later transcribed to permit better analysis and allow verbatim quotations from the proceedings. Students spontaneously spoke in English or in French.

Tables 2 to 5 display the data from the four repertory grids developed in each of the focus groups. In order to facilitate the reading of the grid and the article, the elements will be in italics while the constructs will be boldfaced.

TABLE 2

Representation of the repertory grid developed by the FLS 2581 Political Science group

	Constructs*		
		Language	Course
Elements	Hate (1) Love (5)	Useless for (1) Useful for (5)	Useless for (1) Useful for (5)
Summary writing	4	4	5
Listening activities	4	4	5
Grammar	3	5	2
Discussion on topic themes	5	4	5
Vocabulary	3	5	3
Weekly log	5	3	5
Reading	4	4	5
Listening to video	4	5	3

\*Construct: Likert scale 1 to 5

	Constructs*		
		Language	Course
Elements	Hate (1) Love (5)	Useless for (1) Useful for (5)	Useless for (1) Useful for (5)
Summary writing	4	3	5
Questions on PSY	4	4	5
Logical connectors	3	4	5
Work on class objectives	5	2	4
Vocabulary	3	4	2
Reading and questions	5	5	5
Video and questions	4	4	3

TABLE 4

Representation of the repertory grid developed by the FLS 3581 Political Science group

	Constructs*		
		Language	Course
Elements	Hate (1) Love (5)	Useless for (1) Useful for (5)	Useless for (1) Useful for (5)
Summary writing	2	4	5
Relistening activities	5	4	5
Oral discussion	5	5	4
Oral presentation	5	5	5
Other presentation	1	5	1
Vocabulary and grammar	4	5	4
Weekly log	2	2	3
Film discussion	4	5	2
Comprehension question reading	3	4	4

# Results and data analysis

This section describes the language activities from the repertory grid, and presents the students' perceptions of their enjoyment of the activities and their usefulness for learning the language and for learning the course material. The perceptions of the students registered in FLS 2581 are compared with those in the higher-level FLS 3581. Similarly the perceptions of the students registered in psychology are compared with those in political science.

	Constructs*		
		Language	Course
Elements	Hate (1) Love (5)	Useless for (1) Useful for (5)	Useless for (1) Useful for (5)
Summary writing	2	4	3
Comprehension question reading	2	2	4
Oral discussion	4	5	4
Oral presentation	5	5	5
Vocabulary and grammar	3	5	3
Weekly log	1	3	2
Translation	3	3	2
Listening activities	3	2	3

TABLE 6
Activities listed by the four groups

FLS 2581 PSY (N = 5 PSY) Vocabulary Summary writing Video and questions Reading and questions Work on class objectives Questions on PSY 1502 course Logical connectors	FLS 2581 POL (N = 3 POL) Vocabulary Summary writing Listening to videos Listening activities Grammar Discussion on topic themes Weekly log Research on the subject (Reading)
FLS 3581 PSY (N = 4 PSY + 2 POL + 1 in both sections) Weekly log Summary writing Comprehension questions (reading) Vocabulary and grammar activities Listening activities Oral discussion Oral presentation Translation	FLS 3581 POL (N = 5 POL + 1 PSY)  Weekly log Summary writing Comprehension questions (reading) Vocabulary and grammar activities Relistening to the discipline course Discussion Film discussion Presentation of other material Presentation on the discipline course

### **Elements**

Table 6 lists the activities, or elements, mentioned by each of the 4 groups. The two FLS 2581 groups together named 15 activities while the two FLS 3581

named 17 activities. Some activities were discussed by only one group, such as *translation* by FLS 3581 PSY, and use of *logical connectors* by FLS 2581 PSY. Other activities were cited by all the groups, although in different forms, for example, *listening comprehension*, called *video and questions* by one group *and listening activities* by another group. There may be more than one occurrence of one type of activity within a single group—for example *oral expression* included *presentations* and *discussions*.

As Table 6 indicates, a core of six activities was common to the four groups: listening comprehension, reading comprehension, vocabulary, weekly log, summary writing and oral expression. The following section will focus on these elements and present a description of the definition as provided by the students. Six figures will report on how the students in the four groups perceived these six core activities with respect to the three constructs: useless/useful for language, useless/useful for learning course material, and hate/love. For each of the six elements, the three construct ratings will be compared among the different focus groups.

### Listening comprehension

Definition of the listening comprehension element

The large category of *listening comprehension* activities includes similar elements from the four groups such as *video and questions, listening to video, listening activities* and *relistening to the discipline course* (only FLS 3581 POL). In the psychology adjunct courses, according to participants, students had to summarize or answer questions about supplementary video clips that they were watching. Students indicated that the sources for these listening activities were Radio-Canada or recordings of their professors. On the other hand, for political science students, the discipline courses were recorded and made available to them so that they could listen at their own speed and complete their notes. In the higher-level courses, listening comprehension activities were sometimes followed by discussion activities.

### Construct results for listening comprehension

The *listening comprehension activities* were perceived positively by three groups out of four for all constructs as seen in Figure 2. Three groups found listening comprehension **useful for language learning** except for FLS 3581 PSY whose evaluation was more negative (2). For the **useful for course** construct, the two political science groups found that the listening comprehension activities were most useful, giving them 5, while the two psychology groups who were neutral, gave them 3. For the **hate/love** construct, again except for FLS 3581 PSY, whose evaluation was neutral (3), the same three groups enjoyed them.

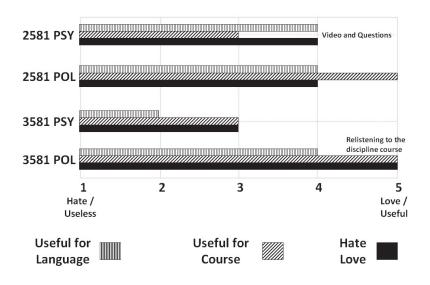


FIGURE 2
Listening comprehension

## Discussion of listening comprehension

The two psychology groups found that the listening comprehension activities were less **useful for learning the course material** than the two political science groups. This difference in perception can be explained by the differences in course instruction. The presentation of information in psychology classes was multimodal and redundant, using lectures, the course textbook and detailed Powerpoint slides including charts and diagrams from the textbook. No repetition of the lecture material was done, or needed to be done, in the adjunct language class. Although the FLS 2581 students found the listening activities **useful for language learning**, those in FLS 3581 did not, because they felt they already had those abilities, and listening comprehension was no longer an objective for the higher-level course.

Ginger<sup>3</sup> Moi, je pense que c'est quelque chose qui devrait être dans le 2581. Parce que c'est axé sur la compréhension; dans ce cours, ce n'est pas vraiment utile.

I think that this [listening comprehension activities] is something that should be in the FLS 2581 classes because that class focuses on comprehension. In our class [FLS 3581] it is not really useful.

(Authors' translation; FLS 3581 PSY)

<sup>&</sup>lt;sup>3</sup>The names of students used in the article are pseudonyms.

On the other hand, the FLS 3581 POL group gave *Re-listening to the discipline course* a 5 for usefulness for learning the content class material. Listening comprehension activities were useful for them. The political science lectures were difficult to grasp and the readings were scholarly articles that are very difficult to work through and difficult to relate to the lectures. Slides were reportedly so wordy that the students spent all their time frantically trying to copy everything down. It was impossible to listen, read, copy, and understand everything all at the same time which led to cognitive overload. This is likely why the political science students rated re-listening to the class lectures as useful for learning the course material. For some students this was critical for them remaining in the course.

Beverley The language teacher records the content class and she puts it in the resource center and that, that is the reason why I'm still in this class and I didn't drop it.... And it's so useful because (...) the teacher, she puts a lot of stuff on the slides, so basically you're spending the whole class writing out what's on the slides and you're not really listening to what she's saying, because it's hard to do both, and that recording will allow us to actually get the content of what she said, which is important. (FLS 3581 POL)

## Reading comprehension

Definition of the reading comprehension element

The students in all the groups identified different variants of *reading comprehension* such as *Reading and questions*, *Research on a subject* and *activities*. In general these represented reading articles related to the content course and either summarizing the main and secondary ideas or answering reading comprehension questions about that text.

Vieky Elle [la professeure de langue] prend un paragraphe d'une lecture qu'on doit faire pour le cours [de discipline], et elle écrit des questions et on doit répondre.

She [the language teacher] takes a paragraph from one of our reading texts for the [discipline] course and prepares questions that we have to answer.

(Authors' translation; FLS 3581 POL)

In the psychology adjunct courses students were asked to prepare *fiches* de lecture.

**Alison** Les fiches de lecture sont en fait de la compréhension de texte. À la maison, les étudiants doivent répondre à des questions sur un ou des textes ou procéder à une compréhension du vocabulaire ou de la structure du texte.

Reading comprehension fact sheets are in essence a comprehension report. Students have to answer questions on one or several texts or do vocabulary activities or reflect on the structure of the text. (Authors' translation; FLS 2581 PSY)

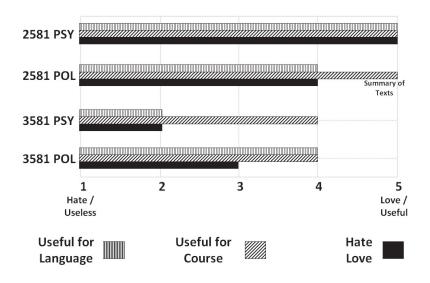


FIGURE 3
Reading comprehension

## Construct results for reading comprehension

The FLS 3581 PSY group did not feel that reading comprehension activities were **useful for language**, scoring this as 2, while the other groups scored this as 4 or 5. All four groups thought that the *reading comprehension* activities were **useful for course**. The two FLS 2581 groups scored them most positively with 5 and the two FLS 3581 groups awarded a score of 4. The **hate/love** scores for reading comprehension activities were broadly distributed. The students in FLS 2581 evaluated these activities the most positively with scores of 4 and 5, while the FLS 3581 students were less positive with scores of 2 and 3.

### Discussion of reading comprehension

Improving reading comprehension is one of the objectives of the FLS 2581 course and this might explain the more positive scores of those FLS 2581 students on the **hate/love** construct.

Stephanie I liked it a lot because it actually forced you to do your homework and I find the fiches de lecture forces you to learn it. . . . I thought the questions were good because it helped with the comprehension. (FLS 2581 PSY)

The course material for the FLS 3581 PSY was well presented and easier to

follow than the articles read by the FLS 3581 POL students. This may explain why the psychology students thought that the reading activities were less **useful for language learning** than the political science students. The more advanced students enrolled in FLS 3581 may feel that reading comprehension practice is not relevant to their language objectives and they dislike it.

Suzan [These] are not very useful for improving productive skills. These are more for FLS 2581. (FLS 3581 PSY)

### Vocabulary

Definition of the vocabulary activities element

Vocabulary activities mentioned in all focus groups took many forms. For the two FLS 3581 groups these activities were linked to grammar activities. Sometimes, students worked with new words from the content lectures seeking their definition from the context. They also looked for synonyms and practised using the new word appropriately. They would fill in the blanks to complete sentences, write sentences with selected words, or associate a new word with its definition.

*Mary Lou* On prend des mots inconnus et il faut écrire des phrases ou peut-être comme remplir une phrase. Elle écrit une phrase et on doit choisir le bon mot.

She takes unknown words and we have to write sentences or maybe fill in the blanks in a sentence. She writes a sentence and we have to choose the appropriate word.

(Authors' translation; FLS 3581 POL)

On occasion, the vocabulary activity could be informal in class. For example:

Melissa Quand on rencontre un nouveau mot, elle comme [l]'écrit au tableau.

When we meet a new word, she likes to write it on the board.

(Authors' translation; FLS 3581 POL)

Very often students had to research meanings of new words and report in class on their findings.

Katy These are the kind of words related to psychology, so each week a different person had to make a list of 20 words that they did not know and that they assumed that the rest of people in the class did not know and then she just brought a synonym and a definition of the word and when it is used. (FLS 2581 PSY)

*Grammar* was mentioned by three groups. However, this term seems to refer more to vocabulary activities, as it encompassed knowledge of connectors, when to use specific words and how to avoid "anglicisms".

Claire One of the homework we had was to find the French way to say something that we would usually say in English, so like, "à date" does not really exist in French, it's like "à ce jour" and that is not something that we would know, so we

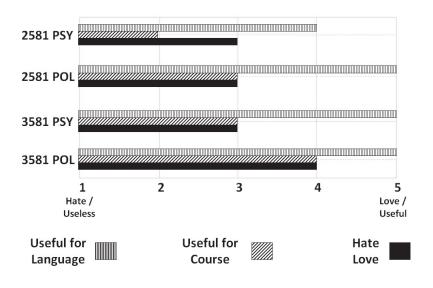


FIGURE 4
Vocabulary studies

had to look up how to say it. And we also had to determine if something was an anglicism or not. (FLS 3581 PSY)

FLS 2581 PSY was the only group to discuss the learning of *logical connectors* and markers and how they are used to link phrases together. One of their activities consisted of filling in blanks using the correct connector. The activity of learning logical connectors can be considered a part of the more general vocabulary activity. In fact, the FLS 2581 PSY group scored learning logical connectors in the same way they scored learning vocabulary — see Table 2.

### Construct results for vocabulary activities

All students felt that *vocabulary activities* were very **useful for improving their language** skills; most groups scored this construct as 5. As for its **usefulness for understanding their course** material, the FLS 2581 PSY students were negative with 2, two groups were neutral, and the FLS 3581 POL group was positive. As for the **hate/love** construct, FLS 3581 POL students are the only group who really enjoyed these activities, giving them a 4. The other three groups rated vocabulary activities neutrally with a score of 3.

Discussion of vocabulary activities

All groups found vocabulary activities **useful for language learning**. As Laufer (1997, 2003) maintains, vocabulary is the cornerstone for reading comprehension.

**Stephanie** I say it [vocabulary activities] helped because if you did not know the word, she [the language teacher] would tell you three other words right off the top of her head to replace that one and we would write them down.

(FLS 2581 PSY)

One FLS 2581 PSY student, however, did grumble about how many words they had to learn and this could also explain some students' dislike for these activities:

Samantha On a fait 20 mots à la fois chaque semaine. C'était trop de mots à apprendre tout à la même fois.

Twenty words to be learned each week. That was too much to learn at the same time. (Authors' translation; FLS 2581 PSY)

The students in FLS 3581 POL found the vocabulary activities were **useful for learning course material** while all other students found them not useful. The PSY students in FLS 2581 were the most negative of all about these activities perhaps because in the introductory psychology course, new terms and vocabulary are already introduced and explained to all students.

### **Summary writing**

Definition of the summary writing element

For *summary writing activities*, usually the students would either read a text or an article from their content course and then write a summary of it. While writing summaries of texts has an important reading comprehension component, here the students are focused on the writing process. In the higher-level political science adjunct course, the writing component consisted of instructions on how to write a summary or a dissertation.

**Beverley** The teacher concentrated the instruction on how to write a summary and the methods. (FLS 3581 POL)

Construct results for summary writing

In general, both FLS 2581 groups viewed the activity more positively than the FLS 3581 students. Regarding the **useful for language** construct, three of the groups were positive about this element, giving it a 4, while the FLS 2581 PSY scored it 3 or neutral. The **useful for course** construct was rated at 5 for the two political sciences courses and the FLS 2581 PSY course. There is a noticeable difference between the students in the FLS 2581 level who like this type of

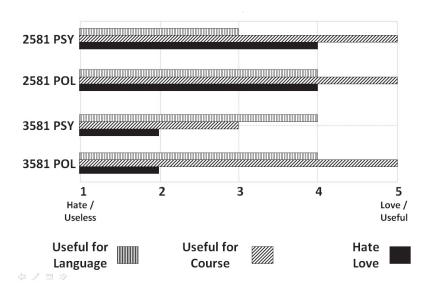


FIGURE 5
Summary writing

activity (**hate/love** = 4) and the students in the FLS 3581 level who dislike it (**hate/love** = 2). The FLS 3581 groups thought that *summary writing* was **useful for learning the language**, but disliked doing it. Also, the PSY 3581 group disagreed on how useful it was for learning the course material.

### Discussion of summary writing

Why do the two FLS 2581 groups like writing summary texts (**hate/love** score = 4) while, counter-intuitively, the two FLS 3581 groups, who are taking the course to improve their productive skills, dislike writing these (**hate/love** score = 2)?

FLS 2581 students are not evaluated on their writing skills for their summary writing, while the FLS 3581 students are. Having their summaries graded, may explain why the FLS 3581 students did not like this activity. The students also realized that writing is demanding and a very difficult skill to acquire.

By writing summaries, the students improved their reading comprehension of the text

*Linda* J'avais une bonne compréhension mais après [l'activité] j'avais une meilleure compréhension.

I had a good comprehension but after the activity I had a better comprehension.

(Authors' translation; FLS 2581 PSY)

The FLS 3581 psychology students did not find writing summary texts useful for the course (3), while the FLS 3581 political science students did (5). One FLS 3581 PSY student said that this activity was a waste of time and that's why she gave it such a low **hate/love** rating (2). This difference in perception might be related to the differing method of evaluation in these two discipline courses. Political science students must write essays and write long answers to discussion questions while the psychology students only have to answer multiple choice questions. This discrepancy may explain their different perceptions.

Students from both political science groups, FLS 2581 and FLS 3581 said that they found these writing activities, based on texts from the political science course, useful because it forced them to read their very demanding course texts.

Students from both FLS 3581 groups mentioned that writing activities were most useful for language acquisition when the professor provided feedback and corrections to them.

**Sheila** C'est très utile pour pratiquer l'écrit. Je pense qu'ils sont plus utiles quand il faut redonner le résumé avec les corrections. Le professeur corrige notre résumé et nous le redonne, et ça nous permet de voir les erreurs qu'on a faites.

It is useful for practising writing. I think they are more useful when we have to hand in the summary again with the corrections. The language teacher corrects the summary and hands it back and that allows us to see the errors that we have made.

(Authors' translation; FLS 3581 POL)

### Weekly log

Definition of the weekly log element

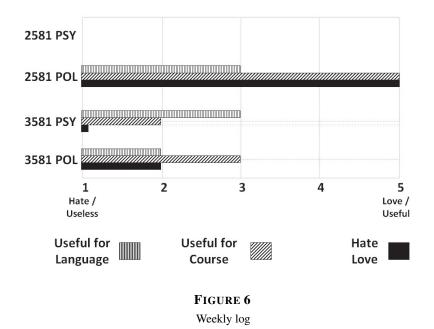
In their *weekly log*, the students from all groups would summarize the course lecture, noting new vocabulary and key concepts. Some FLS 3581 students mentioned that they would also reflect on their learning in their journals.

Dina It was a one page write-up where we answered different questions that the teacher asked us to answer usually on the course content or our opinions relating to the course or the last course we were in. (FLS 3581 POL)

Kim There is not really that much to say about the course. I mean there was a lot of information, but she did not want us to talk about the information, she wanted us to talk about how we feel about the course. (FLS 3581 POL)

Construct results for weekly log

Only three groups reported doing this activity. FLS 2581 PSY did not mention this activity which explains why there is no score for this group. None of the three groups found writing the weekly log **useful for language learning** (con-



struct score = 2 or 3). However FLS 2581 POL found it very **useful for learning the course** material while the higher-level groups did not.

There was a split of perceptions in the **hate/love** construct between the FLS 2581 and FLS 3581 students regarding their writing of their *weekly log*. FLS 2581 POL students enjoyed the activity and were very positive about it (5) while the two FLS 3581 groups did not enjoy this activity (1 and 2).

### Discussion of weekly log

Why did the FLS 2581 POL group enjoy this activity while the FLS 3581 groups did not? For FLS 2581 students, this might have been the first time doing the weekly log and reflecting on their language learning strategies. Perhaps, at that level they like summarizing their discipline course in a non-threatening situation because their writing is not being evaluated.

The higher-level students found they did not have anything interesting to write about strategies in their journals and after a few entries the activity became boring and repetitive. The lecture summary task in the weekly log was not perceived by the students to be **useful for either language or content learning** and the students disliked it. Because students just pasted their class notes into the journal they said it was a boring, useless task. As their journal

did not contribute to their course grade, the whole affair was seen as a useless waste of time.

PatriciaI hate doing them because they are boring as hell.(FLS 3581 POL)MelanieMy favourite chapter was blah, blah, blah.(FLS 3581 POL)

Patricia It takes a while ... you go through everything and if you want to go into everything in depth it takes me two hours. (FLS 3581 POL)

The FLS 3581 students did not understand why they had to reflect on their metacognitive awareness or what the purpose of the activity was. They had already done it in other courses and did not enjoy the repetition.

**Kim** I had to do this last semester they were just painful ..., there's not really that much that you can say about the course. I mean, there was a lot of information, but she didn't want us to talk about the information, she wanted us to talk about how we feel about the course. (FLS 3581 POL)

However, the FLS 2581 students found the weekly log a useful tool to regularly review their course material.

Noella Ça nous aide à réfléchir sur les notes, sur les grands thèmes, c'est bien de relier les notes à chaque semaine plutôt qu'à la fin. Et puis aussi pour comprendre ce qu'on a parlé pour qu'on puisse continuer à comprendre les autres choses après.

It helps to reflect on the notes, on the main themes. It is helpful to put the notes together each week rather than at the end.. And then also to understand what was said so that we can continue to understand what comes next.

(Authors' translation; FLS 2581 POL)

In the higher FLS 3581 classes, the writing of the weekly log was not corrected so the students felt they could not learn from their mistakes. Therefore they found no benefit in their writing and work.

*Ellen* Il faut que le professeur ... les fautes pour ... qu'on puisse améliorer notre production en français et vraiment apprendre ...

The prof should correct the errors so that we can improve our French and really learn ... (Authors' translation; FLS 3581 POL)

**Noella** Je pense ce n'est pas très utile pour la langue, parce qu'on fait juste regarder nos notes et plus ou moins copier les notes.

I think that it is not very useful for language, because we just look at our notes and more or less copy them. (Authors' translation; FLS 2581 POL)

# Oral expression

Definition of the oral expression element

*Oral expression* encompasses formal oral presentations as well as informal discussion. It is emphasized more in FLS 3581 than in FLS 2581. This higher course focuses on language production and its groups listed a much richer

variety of oral expression activities: debates, discussions and presentations. In the political science adjunct course, students discussed among themselves the meaning of concepts raised during the content lecture course. A student would be asked to assume a role personifying a specific political point of view and debated with another student who took a different viewpoint. In this way, different political theories were debated and contrasted by the group. There were also discussions about the lecture notes from the political science course. Some oral presentations were not closely related to the subject of lectures; students were asked to research and report on a subject not directly linked to the discipline course.

There was only one type of *oral expression* mentioned in each of the two FLS 2581 groups. The FLS 2581 PSY group discussed *questions from the PSY 1502 course* where the students reviewed new concepts presented in the lecture class. The students reported that these activities were very collaborative. The FLS 2581 POL group mentioned only *discussion on topic themes* without further elaboration.

Patricia There are presentations which are summaries of the course and presentations which require extra research. (FLS 3581 POL)

*Kate* A student has to elaborate on one concept from the course. (FLS 2581 PSY)

### Construct results for oral expression

All participants were extremely positive about oral expression and all scores were either 4 or 5 on all three constructs.

### Discussion of oral expression

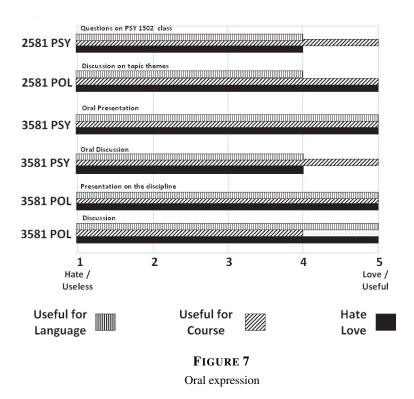
All groups enjoyed the oral expression activities and found them useful for both content and language learning. As students were practising their French, they improved their knowledge and became more comfortable speaking.

Stephanie We would discuss it. Not only it helps me understand what is going on during the course. It's another opportunity for me to use my French without being conscious of the vocabulary and everything else, so it was a really great opportunity to practise French. (FLS 2581 PSY)

Students also liked the oral activities because, through oral communication, they deepened their understanding and knowledge of the topic of the content course.

**Jenny** Je crois que ça peut être utile parce que si on ne comprend pas un concept, les autres peuvent nous l'expliquer.

I think that it can be useful because if we do not understand a concept, the others can explain it to us. (Authors' translation; FLS 3681 PSY)



One student felt that making presentations was useful for the course because it allowed her to review and explore in depth different ideas from the course.

Both FLS 2581 and FLS 3581 students indicated that the oral activities allowed them to practise the language, and to improve their vocabulary. They also helped create a good learning environment.

**Heather** Ça crée une atmosphère très amicale, je pense que c'est très bon pour l'apprentissage de la langue.

It creates a friendly atmosphere and I think it is very good for language learning.

(Authors' translation; FLS 3581 PSY)

Ultimately the goal of the immersion program is to equip students to use French outside of the classroom and, it is to be hoped, in their future career. Comments like the following are encouraging.

**Paul** Si on parle en français avec nos amis dans la classe, quand on sort de la classe on continue de parler en français après.

If you speak with the other students in French in class, when you leave the class you still tend to speak French. (Authors' translation; FLS 3581 PSY)

#### Conclusion

All the French immersion students surveyed, whether they were in first year or second year or were in psychology or political science, did language activities based on reading, listening, writing, speaking, and vocabulary building. Students distinguished between the usefulness of an activity for learning their content course material and for learning the second language. They may or may not have enjoyed doing the activity, regardless of how useful they found it.

With regard to the first research question, certain activities (listening activities, readings with comprehension questions, vocabulary activities, and discussions) were common to all adjunct classes. Other activities such as logical connectors, work on class objectives and presentations were mentioned by only one or two groups. The weekly log was not mentioned by the lower-level psychology group. The reading and listening activities received high ratings from all groups. Class discussions were seen to be useful for both language learning and content learning while vocabulary exercises were considered more beneficial for language learning than for learning content. Listening activities were perceived as being slightly more beneficial for language learning. None of the three groups who mentioned the weekly log liked the activity.

In response to the second research question, it seems that in general the FLS 2581 students tended to be slightly more positive about their language courses than the FLS 3581 students. First year immersion students taking the lower-level FLS 2581 courses have more to learn than the higher-level second or third year FLS 3581 students. Students will value different activities in different ways as their language skills improve. This may be because the FLS 2581 students, starting off at a lower-level and learning more, have a more positive view of their learning activities as they see their improvement over the term. The FLS 3581 students already know more and so their progress is less apparent. When comprehension activities better suited for FLS 2581 students are assigned to FLS 3581 students, they find them less useful and rate them more negatively.

It is worth noting the difference between higher- and lower-levels in the **hate/love** construct for summary writing where both higher groups disliked the activity. These students are challenged with improving their writing and speaking skills. These are difficult skills to master and so they are less satisfied with their activities — which may be scored with a higher standard by their teachers. The academic context inevitably mixes assessment with the personal satisfaction that comes from doing activities well or not. In a context where grades are involved, there is a delicate balance between what is perceived as positive or negative reinforcement and constructive criticism. Common sense

tells us that people like doing activities that they do well and will resent activities that they do poorly and for which their work is scored poorly. Even though the higher groups did not like the summary writing, they still found it useful for one reason or another.

The third question concerned the differences in perception between the students in psychology and political science. The two political science groups tended to be slightly more positive and more similar in their scoring than the two psychology groups — especially for the listening and reading comprehension activities. However, the two psychology groups took noticeably different approaches to their scoring. FLS 3581 PSY students were also systematically more negative in their answers than FLS 2581 PSY students. It is difficult to draw conclusions from the higher-level psychology focus group because of its heterogeneous composition (three political science students and five psychology students). But this case study precludes wide-ranging generalizations. Psychology groups gave a neutral rating to vocabulary activities on the hate/love construct whereas the other two groups were more positive. They found these activities not useful for content learning but viewed them as useful for language.

The advantage and usefulness of the focus group discussion methodology is that the students define the activity. There is no misunderstanding by the students about the meaning of the questions, nor is there a misunderstanding by the researcher about the students' answers. On a previous survey, while its questions were clearly assessing the language class, the students interpreted them as being about the content immersion class and their responses sometimes mixed the language and content courses. This problem did not appear in the focus group discussion as the students were both defining and discussing the language activities — aware that they were talking about the language support class and not about the content class.

As a consequence of the focus group discussion some concrete improvements to the delivery of this program were implemented. In response to students' generally negative reaction to the weekly log activity, in the teacher training, weekly log activities were discussed with the aim of making them more valuable to the students. The pedagogical co-ordinators decided to give clearer guidelines to instructors for the weekly logs so that they would not be so repetitive or so vague as to be useless for students. They suggested more focused activities such as reflecting on listening challenges at the beginning of the term and moving on to difficulties with examination preparation and vocabulary learning strategies. Although professors were advised not to assign a grade to the logs, they were encouraged to give linguistic as well as conceptual feedback to students.

As the program expands and more students register in the adjunct classes, this research should be pursued on a larger scale with more groups representing

more disciplines, with more students per focus group, with more homogenous groups if possible, and with longer interviews so that students could propose other constructs and evaluate them. Previous studies (Ready and Wesche, 1992; Weinberg et al., 2008) have highlighted the contextual differences between various discipline courses in terms of lecture delivery, reading requirements, writing demands and evaluation procedures. Therefore, it would be useful to expand the investigation to include more focus groups from different disciplines. In this way, one could explore how the adjunct language courses attempt to address the varying language challenges of students taking different discipline courses so that the language courses can be improved to meet their needs.

# Appendix: Interview protocol

### Question de départ posée par la facilitatrice

Quelles sont les activités linguistiques que vous faites dans vos cours d'encadrement linguistique ?

Les participants doivent trouver un consensus pour répondre à cette question en définissant leurs activités.

#### Définition des éléments

Les éléments sont les activités linguistiques que les étudiants ont mentionnées et qui ont été regroupées pendant la discussion.

#### Définition des construits

Les construits sont des paires bipolaires, des liens de contraste et de similarité exprimés sur une échelle de Likert de 1 à 5 (par exemple: déteste à adore). Les trois premiers construits ont été proposés par la chercheure et étaient les suivants

- Quelle est votre perception de ces activités ? (déteste ou aime)
- Est-ce que vous considérez que ces activités sont inutiles/utiles pour votre cours de langue ?
- Est-ce que vous considérez que ces activités sont inutiles/utiles pour votre cours de discipline?

Les étudiants ont évalué les activités en fonction des construits. La collecte des donnés se déroule par et avec tous les participants.

(Certains groupes ont eu le temps de proposer d'autres construits mais ils ne seront ni commentés ni analysés dans cet article.)

#### Déroulement des sessions

Quatre rencontres d'une heure avec les étudiants (deux classes de premier niveau et deux classes du deuxième niveau.

#### Grille répertoire

Formée par les éléments (à l'horizontale) et les construits (à la verticale)

Les données sont alors regroupées et permettent ainsi de vérifier le degré de similitude entre deux éléments ou deux construits. Les résultats peuvent être présentés sous différentes formes.

## References

- Bologna Declaration. 1999. Accessed July 31, 2009. Available at: ec.europa.eu/education/policies/educ/bologna/bologna.pdf.
- Bourassa, M., R. Philion and J. Chevalier. 2007. L'analyse de construits, une coconstruction de groupe. Éducation et francophonie, vol. 35, nº2, pp. 78–116. Numéro thématique: Les outils de la recherche participative, Michelle Bourassa, Louise Bélair et Jacques Chevalier (dir.).
- Brinton, D., M.A. Snow and M. Wesche. 2003. Content-based second language instruction. 2nd ed. Michigan Classics Edition. Ann Arbor: University of Michigan Press.
- Burger, S. 1989. Content-based ESL in a sheltered psychology course: Input, output and outcomes. *TESL Canada Journal*, vol. 6, no. 2, pp. 45–59.
- Burger, S. and M. Chrétien. 2001. The development of oral production in content-based second language courses at the University of Ottawa. *Canadian Modern Language Review*, vol. 58, no. 1 pp. 84–102.
- Burger, S., M. Wesche, and M. Migneron. 1997. Late, late immersion: Discipline-based language teaching at the University of Ottawa. In Johnson and Swain, pp. 65–84.
- Chevalier, J. and D. Buckles. 2008. SAS<sup>2</sup>: A guide to collaborative inquiry and social engagement. London: Sage.
- Duverger, J. 2000. Florilège de pratiques pédagogiques spécifiques de l'enseignement bilingue. In J. Duverger (ed.), *Actualité de l'enseignement bilingue: le français dans le monde. Recherches et application.* Paris: Hachette Plus.
- Edwards, H., M. Wesche, S. Krashen, R. Clément and B. Kruidenier. 1984. Second language acquisition through subject-matter learning: A study of sheltered psychology classes at the University of Ottawa. *Canadian Modern Language Review*, vol. 41, no. 2, pp. 268–282.
- Gajo, L. 2007. Linguistic knowledge and subject knowledge: How does bilingualism contribute to subject development? *International Journal of Bilingual Education and Bilingualism*, vol. 10, no. 5, pp. 563–581.
- Genesee, F. 1987. Learning through two languages: Studies of immersion and bilingual education. Cambridge, MA: Newbury House.
- Genesee, F. 1992. Second/foreign language immersion and at-risk English-speaking children. *Foreign Language Annals*, vol. 25, no. 3, pp. 199–213.
- Greere, A. and A. Räsänen. 2008. *CLIL SP3—Year One Report*. Accessed February 25, 2010. Available at: www.lanqua.eu/files/CLIL\_SouthamptonNov2008FINAL.ppt.
- Harley B., J. Cummins, M. Swain and P. Allen. 1990. The nature of language proficiency. In B. Harley, P. Allen, J. Cummins and M. Swain (eds.), *The development of second-language proficiency*. Cambridge: Cambridge University Press, pp. 7–25.

- Hauptman, P., M. Wesche and D. Ready. 1988. Second language acquisition through subject-matter learning: A follow-up study at the University of Ottawa. *Language Learning*, vol. 38, no. 3, pp. 433–475.
- Johnson, R.K. and M. Swain. 1997. *Immersion education: International perspectives*. Cambridge: Cambridge University Press.
- Jurasek, R. 1993. Foreign language across the curriculum: A case history form Earlham College and a generic rationale. In M. Krueger and F. Ryan (eds.), *Language and content: Discipline- and content-based approaches to language study*. Lexington, MA: Heath, pp. 85–102.
- Kelly, G. 1955. The psychology of personal constructs. New York: Norton.
- Krashen, S. 1982. Principles and practice in second language acquisition. Oxford: Pergamon Press.
- Krashen, S. 1984. Immersion: Why it works and what it has taught us. *Language and Science*, 12, pp. 61–64.
- Lapkin, S., M. Swain and V. Argue. 1983. French immersion: The trial balloon that flew. Toronto: Ontario Institute for Studies in Education.
- Laufer, B. 1997. The lexical plight in second-language reading: words you don't know, words you think you know and words you can't guess. In J. Coady and T. Huckin (eds.), Second language vocabulary acquisition. Cambridge: Cambridge University Press, pp. 20–34.
- Laufer, B. 2003 Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence. *Canadian Modern Language Review*, vol. 59, no. 4, pp. 567–588.
- Lyster, R. 2007. Learning and teaching languages through content. A counterbalanced approach. Amsterdam: John Benjamins.
- Metcalf, M. 1993. Foreign languages across the curriculum from a social science perspective: The Minnesota model. In M. Krueger and F. Ryan (eds.), Language and content: Discipline- and content-based approaches to language study. Lexington, MA: Heath, pp. 114–119.
- Peters M., J. Chevrier, R. Leblanc, G. Fortin and S. Kennedy. 2007. L'utilisation de l'analyse de construits dans un groupe de recherche pour définir le concept d'accompagnement métacognitif. Éducation et francophonie, vol. 35, no. 2, pp. 172–191. Numéro thématique: Les outils de la recherche participative, Michelle Bourassa, Louise Bélair et Jacques Chevalier (dir.).
- Phillion, R. 2007. L'analyse de construits au service de la co-construction de sens chez les étudiants mentors. *Éducation et francophonie*, vol. 35, no. 2, pp. 192–216. Numéro thématique: *Les outils de la recherche participative*, Michelle Bourassa, Louise Bélair et Jacques Chevalier (dir.).
- Räsänen A. and R. Klaasen. 2006. From learning outcomes to staff competences in integrated content and language instruction at the higher education level. In R. Wilkinson, V. Zegers and C. Van Leeuwen (eds.), *Bridging the assessment gap in*

- English-medium higher education. Fremdsprachen in Lehre und Forschung Band 40. Bochum: AKS Verlag: pp. 256–278.
- Rebuffot, J. 1993. Le point sur l'immersion au Canada. Montréal: Éditions CEC.
- Ready, D. and M. Wesche. 1992. An evaluation of the University of Ottawa sheltered program: Language teaching strategies that work. In R. Courchêne, J. Glidden, J. St. John and C. Thérien (eds.), Comprehension-based second language teaching/L'enseignement des langues secondes axé sur la comprehension. Ottawa: Ottawa University Press, pp. 389–405.
- Ryan, W., P. Courcelles, A. Hope, C. Buchanan and M. Toews Janzen. 2007 *Evaluation of the French immersion studies academic stream*. Ottawa: University of Ottawa.
- Ryan, W., M. Gobeil, A. Hope and M. Toews Janzen. 2008. *Evaluation of the French immersion studies academic stream: Year* 2. Ottawa: University of Ottawa.
- Stryker, S.B. and B.L. Leaver. 1997. *Content-based instruction in foreign language education: Models and methods.* Washington: Georgetown University Press.
- Swain, M. and S. Lapkin. 1982. Evaluating bilingual education: A Canadian case study. Clevedon, UK: Multilingual Matters.
- Tardif, C. and F. Gauvin. 1995. *Répertoire de la recherche universitaire en immersion française au Canada: 1988 à 1994*. [An annotated bibliography of the research on French immersion in Canada conducted by university researchers: 1988 to 1994.] Ottawa: L'Association canadienne des professeurs d'immersion, Canada.
- University of Ottawa. 2010. Vision 2010 Academic strategic plan. Accessed February 25, 2010. Available at: www.web5.uottawa.ca/vision2010/major-directions-goal 1.html.
- Weinberg A. and S. Burger. 2007. Guide à l'intention du professeur de langue: cours d'encadrement linguistique. Document interne. Université d'Ottawa, ILOB.
- Weinberg, A., S. Burger and A. Hope. 2008. Evaluating the effectiveness of content-based language teaching. *Contact Research Symposium Issue*, vol. 34, no. 2, pp. 68–80. Toronto. [electronic version]. Accessed February 25, 2010. Available at:
  - www.teslontario.org/uploads/publications/researchsymposium/ResearchSymposium2008.pdf.