

Stimulating the Interest of College Students Registered in the Preparatory French Course: Evaluation of a Cross-Curricular Intervention¹

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The poor quality of written French of many college students poses several problems. Indeed, on an individual level, it affects their overall self-concept (Maltais and Herry, 1997); on the economic level, it contributes to the shortage of skilled labor in the technical sector (Emploi-Quebec, 2008); on the sociopolitical level it goes against society's desire to promote the French language, made official by the adoption of the Charter of the French Language in the National Assembly. In 2008, with the support of a teaching and training research program (Programme d'aide à la recherche sur l'enseignement et l'apprentissage: PAREA), the Ministry of Education, Leisure, and Sport (MELS) subsidized a study whose objective was to set-up and evaluate an intervention to improve the quality of written French of the students experiencing difficulty with this subject. This intervention was carried out with two cohorts of students registered in Preparatory French (PF) course, one in the fall of 2008 and the other in the fall of 2009. This article summarizes the results of the evaluation of the effectiveness of this intervention, detailed in the research report PAREA (Cabot, 2010). The principal results provide an understanding that cross-curricular teaching stimulates the interests of the students which in turn leads to an increase of involvement in the PF course as well as being more successful in this course.

The Initial Idea

When questioning certain students whose quality of writing was poor, it was noticed that these students did not demonstrate much interest for French and that they attended their courses with little enthusiasm. Therefore, a way to stimulate their interest towards their French courses as well as towards the language itself was researched. In order to target the greatest concentration of students experiencing difficulties in French as possible, it was decided to carry out the intervention with students taking a PF course. It was expected (intuition supported by literature) that by increasing the students' interest in their PF course, they would be more involved, and in return, they would obtain better results. Moreover, this relationship made it possible to anticipate a better success rate in the PF course by the students exposed to the

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intervention. A cross-curricular intervention was thus organized by connecting the PF course to a complementary course (a psychology of sexuality course) chosen by the students according to their interests. The hypothesis anticipated a transfer of the interest experienced for the complementary course to the PF course if they were planned in order to explicitly connect the two courses (for a description of this pairing, consult Cabot and Cloutier, 2010). The connection between the two courses had to be explicit enough to be clearly seen by the students so that their interest would be stimulated, as recommended by Desautels (2004).

The Theory Supporting the Initial Idea

First of all, a review of the literature on the concept of interest provides the understanding that interest is composed of an affective component and of a cognitive component. This is one of the principal distinctions between interest and most of the other motivational concepts, essentially cognitive. In the concept of interest, the affective component expresses itself principally by positive emotions felt during the activity of interest (Hidi, 2006). The cognitive component is instead composed mostly of attention, concentration and effort (Silvia, 2005). Furthermore, situational interest must be distinguished from personal interest. The first is ephemeral and is caused by the environment. The second is stable and comes from the person. Hidi and Renninger (2006) developed a four-phase model of the development of interest where situational interest precedes personal interest. They maintain that the environment must first stimulate situational interest, and it must be maintained so that a personal interest will emerge and then be cultivated by the person. The current study is based on this model. We believe that by stimulating a situational interest in the students towards their PF course, a personal interest for French might eventually emerge. Here is an illustration of the development of interest according the four-phase model.

Phase 1: Triggered Situational Interest

During this phase, an element of the environment captures the attention of the person. For example, the teacher introduces a subject of discussion or a pedagogical method. The literature about interest specifies that the original, concrete and surprising character of the information, being able to identify with the situation presented or to its intensity are all characteristics that could trigger situational interest (Wade, Buxton and Kelly, 1999).

Suppose a group of students attend a French course. The teacher could capture the attention of the students in his class by presenting the preview of a movie soon to be in movie theaters, based on a novel that he has read. The new, surprising and

concrete character of this pedagogical strategy could draw the attention of certain students. Amongst them, such as Albert, who likes cinema but not reading.

If we succeed in capturing the attention of a student in class, it becomes possible to maintain it.

Phase 2: Maintained Situational Interest

During this phase, there is selective and sustained attention towards the source of interest. This increased attention can induce an engagement of the person towards the object of interest and lead him to reengage. However, at this stage, the interest remains supported more by the environment (for example, the teacher) than by self-regulation.

After viewing the preview of the film which captured the attention of certain students (phase 1), the teacher could attempt to maintain it by revealing certain passages in the novel. He could spike the intrigue by supplementing the information that he gives and even have the students participate by allowing them to give hypotheses about the story as it unfolds.

If it is maintained, situational interest can then be increased and lead towards a long-term interest in the object of interest.

Phase 3: Emerging Individual Interest

During this phase, the person begins to maintain interest to a greater extent, though he or she could need more support (like explanations or encouragement) when encountering difficulty. The person increasingly develops interest in the object which makes him or her experience positive feelings. He or she also experiences a frequent desire to reengage and thereby accumulates knowledge related to this object of interest. We can observe the emergence of a personal interest by the formulation of “questions of curiosity”, defined by Renninger (2000). This is a reasoning that a person forms, aiming to develop the organization of his or her knowledge by integrating the new information into his or her stored knowledge.

Once the situational interest of certain students is maintained by the class discussion about the novel on which the movie is based, these students (like Albert) could be tempted, outside class, to find supplementary information on the novel in order to know more about the story. These students could read information on the Internet about this subject, discuss the soon-to-be-released movie with their friends or even obtain the novel if the subject really stimulated their curiosity. These are

self-generated demonstrations of interest. In the next class, the teacher could support this interest by telling the students that he placed a copy of the book in the reserve section of the library or mention another movie based on a novel that he really liked. The interest for this type of reading could develop in certain students. This development could be confirmed by “questions of curiosity”. For example, Albert asks a question about the relationship between the author’s intent and the work of the director of the movie.

Phase 4: Well-developed Individual Interest

During this last phase, the person will by himself or herself find occasions to reengage in the task. The interest is self-regulated here and is characterized by more knowledge and value related to the task as well as more positive feelings. An important element of this phase is that the person will seek to know more about the object of interest but that this engagement will seem effortless to him or her.

To illustrate this phase with the same example previously used, we could say that Albert has developed an interest in reading novels that lead to the production of movies. He could keep informed of the movies that are in the process of production with the help of the Internet, identify those that attract his attention, and read the novels before the release of the movies in theaters. All of these steps would seem natural and easy since they are nourished by a personal and well-developed interest. This is a great improvement if we compare it to the initial situation, when Albert said he did not like to read.

By creating explicit connections between the subjects treated in the psychology of sexuality course and the pedagogical situations of the PF course, we believed that we could create positive feelings during the tasks needed to be done in the PF course and cause a situational interest towards this course. By sufficiently maintaining this interest during the semester, we hoped a personal interest, more integrated, would be born in the students for French.

The Impact of the Experimental Context on Students’ Interest

The results first revealed that the situational interest of the students who experienced the cross-curricular component (the experimental group – EG) increased during the semester, and this, much more than that of the students following the PF course as it was normally taught, that is without the cross-curricular planning with another course (control group – CG). Furthermore, the personal interest of the EG students, at the end of the semester, had also

increased but by a proportion less obvious than for situational interest. This is in agreement with the theory of Hidi and Renninger (2006) proposing that a situational interest must first be triggered and maintained in order for a personal interest to begin to develop. These results give rise to different reactions. First of all, we are happy to note that the context of the EG had a positive impact on the situational interest of the students towards their PF course. However, this “EG context” includes three principal variables that could influence the interest of the students towards their course: the cross-curricular approach, the atmosphere of the class which is specific to a small number of students in the group (for the cohort of 2009) and the appreciation of the teacher. Indeed, in the fall of 2009, the FP course group was composed of 13 students, which is uncommon. During the interviews administered to the students of the EG after the intervention, the particularly positive atmosphere of the class of this cohort and the very positive appreciation of the French teacher were expressed as being important to their success in French. We believe that each of the variables underlined above partly influence the effectiveness of the intervention but it is currently impossible to distinguish each of these influential parts. The intervention which is currently underway (fall of 2010) with a new cohort will provide the answer to this question. In spite of this, during the interviews, they all affirmed having clearly seen the connection between the two courses and specified that this connection was a good thing for them. This confirms the positive impact of a cross-curricular approach on the students of the EG.

In addition, although the positive influence of cross-curricular teaching has not yet been quantified, it is necessary to question how to teach a general education course like French while ensuring that the students’ interests are met. Teaching by program could be a solution. Indeed, by grouping students according to their program of studies, it is logically easier to meet their interests, especially with regard to the technical programs. However, as reported by Desautels (2004) and Tardif (2004), teaching by program is not uniformly widespread at the college level, even if it is encouraged by the MELS, especially concerning the integration of the general education courses. For example, it seems that very few students are grouped by program to take their philosophy course. If students of the same program were grouped together in a homogeneous way for all their courses (except for the complementary courses) it would be easier to meet their interests even in the general education courses. Therefore, in the general education courses, through planning learning situations related to subjects connected to nursing for the groups of students of this program, their interest could be stimulated. In the situation where students of various programs are grouped together in the general education courses, it can be difficult, even for the best-intentioned French teacher to touch on each student’s interest.

In short, in the possibility that the exact influence of a cross-curricular approach on students' interest and success is confirmed, there remains the question of how to carry this out in the usual practice (i.e. not being the subject of a subsidized study) of college teaching. In other words, what would be needed to do this?

The Impact of the Experimental Context on the Involvement of the Students in French

A measurement of the behavioral involvement of the students was obtained by means of a questionnaire containing items such as "Doing the readings and the exercises requested by the teacher" as well as by the French teachers' record of absences of the students from each course.

The results showed that the scores of behavioral involvement (obtained by the questionnaire) of the students of the EG were higher than those of the students of the CG. Moreover, the latter were slightly more absent in their PF course than the students of the EG. Lastly, an additional analysis showed that behavioral involvement depended on the interest of the students, such as had been anticipated.

The impact of the Experimental Context on the Performance of Written French

A diagnostic dictation was administered to the students (the EG as well as the CG) at the beginning of the semester and at the end of the semester. Using this, a comparison was made of the number of errors in spelling (determined here as lexical spelling, that being the invariable standards of writing of the words without regard to their use in the sentence), of grammar (determined here as the variable standards of writing of the words relative to their use in the sentence, such as homophones, the conjugation of verbs, etc.) and of agreement (determined here as the standards of "simple" agreement, such as the agreement of a pronoun to a verb, a determinant with a noun, etc.) between the two periods of measurement, so as to quantify the improvement of the students during the semester. We noted that the students of the EG improved slightly in the three types of errors: an average reduction of 2.05 in grammatical errors, 0.25 in agreement errors and 1.45 in spelling errors.

Regarding the CG, the unexpected results are surprising: an average increase of 0.34 in grammatical errors, an average increase of 0.83 in agreement errors and an average reduction of 2.34 in spelling errors. At this stage, the differences between the EG and the CG are too modest to formally conclude that these results "prove" anything. However, they are sufficiently surprising to create interest from a theoretical point of view. What could have happened for the students of the CG to have made more errors in grammar and agreement at the end of the semester whereas they clearly improved in spelling?

To attempt to answer this question, we initially sought to understand what distinguishes the errors of agreement and grammar (for which the performance of the students of the CG worsened) from the errors in spelling (in which they improved). The principal distinction is that the first two refer to variable linguistic elements, that being those which require a mental adaptation to the context of the sentence to conjugate or to make agreement correctly. Spelling pertains to invariable elements of writing. If different mental processes are involved in the treatment of these types of errors, how did the intervention lessen this distinction for the students of the EG? A study undertaken by Mc Daniel and his collaborators (2000) makes it possible to formulate an explanatory hypothesis. These authors concluded that, the attention deployed during the reading of an interesting text required less energy than that necessary in the reading of an uninteresting text which would explain the more elaborate cognitive treatment of the contents of the interesting text than that of the uninteresting text. While applying this reasoning to the results related to the diagnostic dictation of this study, the following hypotheses arise. Perhaps the students of the EG, having followed their PF course in a context which specifically stimulated their interests, had to deploy less energy to be attentive, thus allowing a reinvestment of energy in the study of the types of errors requiring constant adjustment. According to same logic, perhaps the students of the CG, having followed their PF course without specific stimulation of their interests, had to provide more energy-consuming attention during the course, thus leading to a more marked learning of the invariable elements of writing (spelling). In the possibility where similar results are observed of the third cohort being studied (2010), more attention should be granted to these questions.

Impact of the Experimental Context on the End Result Obtained for the PF Course

The relative data of the end results obtained by the students during the PF course and the success rate of this course are convincing. Indeed, the students of the EG obtained a final average in French of 63.21% compared to 54.63% for the students of the CG. Moreover, the rate of success during PF of the EG is 75% whereas it is 47.8% for the CG. These results are statistically significant. They make it possible to conclude that the context of the EG had a positive impact on the success in French of the students of the EG. There now remains to distinguish the three elements of influence attributed to cross-curricular teaching, of the appreciation of the teacher as well as the atmosphere of the class as a small group.

The Difference of the Impact of the Intervention According to Sex

Various results make it possible to believe that the intervention had a more important impact for the boys than for the girls, even if the final mark and success rate of the PF course were higher for the girls. Indeed, the interest of the boys of the EG increased more than that of the

girls. Moreover, the boys of the EG obtained higher involvement scores than those of the girls of their group, whereas the reverse can be observed for the CG. The same observation was made concerning presence in class: the boys of the EG had better attendance during the PF course than the girls of their group, whereas the reverse was reported for the students of the CG. These advantages made it possible for the boys of the EG to exceed by far those of the CG, in terms of the final mark and the success rate during the PF course.

What Can We Draw from This Experience?

The social contribution of this study is felt on the sociopolitical, economic, educational, and individual levels. Indeed, the context of the EG having led to the development of a situational and personal interest towards French, contribute to the harmonization between reality (the quality of written French of the Quebecois) and the desire of the Quebecois society to promote the French language. On the economic level, failure at school experienced during college programs are known to affect the graduation of the students concerned, which contributes to the shortage of labor in the technical sector. Interest in school and the success rate of the EG students were favorably influenced by the learning context. If it is to be acknowledged that this context also had an influence on the graduation rate of these students, its contribution to the economic level is to be specified. At the college level, this study confirms that explicit connections between the courses of the students, such as promoted by the programs, have a positive influence on learning. This should encourage those involved at the college level to organize their teaching in this direction. Lastly, at the individual adjustment level of the students, authors have reported that the feeling of competence in French had a favorable impact on the self-concept of the student. Although this question was not studied in detail at this stage of the study, the preliminary results indicate that the students of the EG increased their feeling of competence in French to 1.00 during the intervention whereas this increase is 0.12 in the CG students. This observation allows us to believe in the potential benefits of this type of teaching on the psychological adjustment of the person.

It would be interesting to apply this intervention over a longer period than only one semester in order to see whether personal interest would develop in a stable manner. Moreover, it would be relevant to reproduce this experiment in other disciplines where certain students experience difficulty, like mathematics, the bane of several social science students. Having been, in the beginning, conceived for the improvement of written French, this study shows the possibility for the promise of partnerships in teaching in general. This research aspires to be a source of inspiration for any teacher who would like to experiment with the cross-curricular approach in his or her teaching or for any researcher wishing to continue the progression of the work in this field.

References

- Cabot, I. (2010) *Interdisciplinarité et intérêt pour le français*. Rapport de recherche PAREA. Saint-Jean-sur-Richelieu: Cégep Saint-Jean-sur-Richelieu.
- Cabot, I. et Cloutier, F. (2010). (Accepté) Apprivoiser une bête noire. Une pratique d'interdisciplinarité pour développer l'intérêt de collégiens éprouvant des difficultés en français. *Pédagogie collégiale*, 24(1).
- Desautels, L. (2004). Intérêt des élèves et réussite du cours de philosophie "propre au programme": d'abord une affaire de pédagogie! *Pédagogie collégiale*, 18(2), 21-26.
- Emploi-Québec. (2008). *Le marché du travail au Québec. Perspectives professionnelles 2008-2012*.
- Hidi, S. (2006). Interest: A Unique Motivational Variable. *Educational Research Review*, 1, 69-82.
- Hidi, S. et Renninger, K. A. (2006). The Four-Phase Model of Interest Development. *Educational Psychologist*, 41(2), 111-127.
- Maltais, C. et Herry, Y. (1997). Le concept de soi des élèves éprouvant des difficultés d'apprentissage. *Éducation et francophonie. Revue scientifique virtuelle*, 25(2). Récupéré de <http://www.acef.ca/c/revue/revuehtml/25-2/r252-04.html>
- McDaniel, M. A., Waddill, P. J., Finstad, K. et Bourg, T. (2000). The Effects of Text-Based Interest on Attention and Recall. *Journal of Educational Psychology*, 92(3), 492-502.
- Renninger, K. A. (2000). Individual Interest and its Implications for Understanding Intrinsic Motivation. Dans C. Sanson et J. M. Harackiewicz (Éds.), *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance*. New York: Academic.
- Silvia, P. J. (2005). What is Interesting? Exploring the Appraisal Structure of Interest. *Emotion*, 5, 89-102.
- Tardif, H. (2004) *Intégration de compétences de la formation générale en Techniques d'éducation à l'enfance*. Rapport de recherche PAREA. (p. 396). Québec: Campus Notre-Dame-de-Foy.