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# Academic Motivation

**Resource selection and writing**
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## Preface

Motivation is a very broad field of knowledge that can be applied to different life contexts to better understand them and influence their course. Cultivating one's health is one such context. Learning is another. This annotated bibliography addresses the area of academic motivation, a more precise field than motivation alone and yet still extensive. An impressive number of concepts are related to it, among which there is a lot of overlap. Researchers choose some of these elements to express various views of motivation in the form of models. We can then choose the view or views that best meet our needs and use them to build a research plan or a pedagogical strategy. By means of this exercise, my goal is to clarify the main motivational concepts that apply in education while limiting myself to the literature available at the CDC in order for the college reader to have access to them free of charge.

## In this Issue

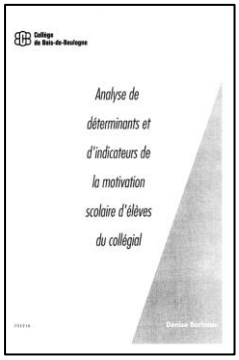
# 1. Introduction

Among the publications dealing specifically with academic motivation, there are different ways (what I call macro-models, those including several concepts) to conceptualize it; for example, there is the self-determination theory developed by Edward Deci and Richard Ryan; the expectancy-value theory of Jacquelynne Eccles and Allan Wigfield; the motivational dynamics model of Rolland Viau; and the academic motivation model of Denise Barbeau, to name only these. Moreover, one can study specific motivational concepts (e.g., interest, utility value, the sense of self-competency, achievement goals) that influence the direction and intensity of motivation. Distinctive theoretical models also explain each of these concepts. In short, should a person try to cover all the literature available on the topic, they would have a mountain of reading before them. This condensed version can thus save readers a significant amount of time. ☺

As educators, one of the reasons that we have to develop knowledge about academic motivation is that it leads to engagement and student success. Motivation is in a way the energy behind the actions necessary for success. Motivation is the “volition” and engagement is the “doing.” To do their reading, assignments, and exercises necessary to success, students must mobilize and deploy (motivational) cognitive, affective, and behavioural energy. The wonderful thing about motivation is its permeability to external influences: as a teacher, I have some influential power over my students’ motivation for my courses. Hence the importance of motivation in education: when you know what it underpins, you have a better idea about how to promote the mobilization of energy in students. The pages that follow provide a sampling of the documentation for various gateways to basic knowledge about academic motivation, gateways to be entered by any teacher engaged in the profession.

# 2. A few Macro-Models

## 2.1 Barbeau model




**BARBEAU, Denise** (1994). ***Analyse de déterminants et d'indicateurs de la motivation scolaire d'élèves du collégial***, Montreal, Collège de Bois-de-Boulogne, 486 pages.

In *Analyse de déterminants et d'indicateurs de la motivation scolaire d'élèves du collégial*, Barbeau reports on a comprehensive exploration of links between motivation, expressions of engagement (presented as indicators of motivation), and the success of college students, based on various intervening variables such as field of study, gender, number of hours of study, previous failures, etc. Among Denise Barbeau's research reports, this imposing document is the favourite of the theoretician in me. In this report, we find a rigorous explanation of the theoretical foundations of the analytical model of the determinants and indicators of motivation, commonly known as the Barbeau model (Figure 1). Chapter 2 of this research report enables the reader to appropriate important basic knowledge about academic motivation. Indeed, each theoretical element of the model has solid support in the related scientific literature. The main motivational concepts incorporated in this model are the goals targeted by students (learning and/or performing), causal attributions (to what do students attribute their successes and failures), perceived competency (how do they evaluate their ability to do things well), and the importance they place on academic tasks.

This model is finely appropriated from several important theories in the field of academic motivation, mainly those of Weiner, Seligman, and Bandura. Bernard Weiner has devoted much of his career to advancing today's understanding of causal attributions. His attribution theory of motivation explains the consequences of a result on a student's behaviour based on the student's perception of the related causes. Martin Seligman's work on learned helplessness clarifies how a person comes to feel powerless in situations they perceive they cannot control and the consequences of this resignation. Albert Bandura is known for his concept of self-efficacy, which in his opinion is the foundation for motivation. It is his belief that the dynamics of interaction between individuals and their environment contribute to their perception of a situation and thus influence the self-regulatory mechanisms that will set them in motion to attain their objectives.

This theoretical model led Barbeau's team to develop a measurement tool applicable in the context of student groups. This impressive publication is truly original, that is to say, it does not stem from the translation of pre-existing items. While this is not the only way to proceed, I personally consider the methodological process of developing and validating this instrument, as described in sections 3.1 and 3.2 of the report, to be exemplary. It is a reference for developing this type of measurement instrument.

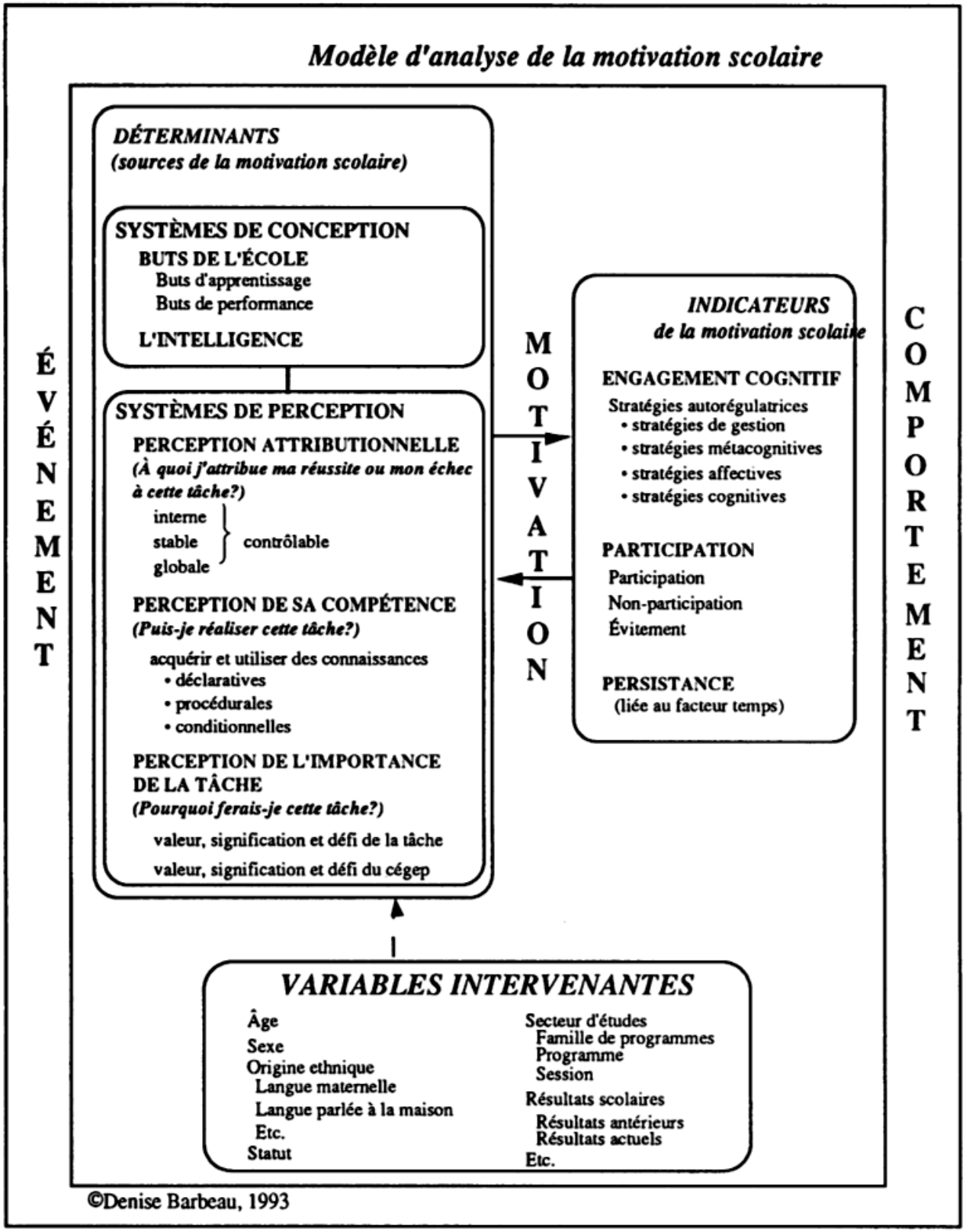



**Figure 1**

This measuring instrument was administered to 1461 college students in the fall of 1992. It is not my goal here to relay all the results of the study, but rather to encourage the reader to peruse this excellent report. Consequently, I will present only a few examples of the outcomes, accompanied by lines of thought presented by the author. Overall, the main findings paint a rather positive picture of the motivational profile of the vast majority of college students. Only 10% of participants see themselves as rather incompetent and attribute little importance to college tasks. There are similar results for engagement (an indicator of motivation): 10% of participants say they very seldom use cognitive engagement strategies and only sometimes participate in the activities proposed by teachers. The author notes that these results may seem surprising, considering that almost a third of college students will not graduate. The discussion (Chapter 5), formulated as assumptions, is very interesting and thought provoking. For example, to explain the high scores of sense of competency found, the 11 years of school attendance before entering Cegep and graduating from high school can be perceived by students as evidence of their ability to acquire and use knowledge (p.263). Another interesting outcome: Girls do better (in terms of academic performance) than boys, but see themselves as less competent. Why? One of the author's lines of thought: Does the fact they feel competent lead boys to study less? Chapter 5 of this report is full of other equally interesting ideas. It is a must read! ☺

## Related documents

- **BARBEAU, Denise** (1991). **Pour mieux comprendre la réussite et les échecs scolaires**, *Pédagogie collégiale*, Vol. 5, No. 1, Fall 1991, pp. 17-22.

In *Pour mieux comprendre la réussite et les échecs scolaires*, Barbeau clearly explains the mechanics of causal attribution (the topic of her doctoral studies), which is one of the key concepts of her motivation model. Usually (but especially when faced with an unexpected outcome), we attribute causes to situations we experience in an attempt to understand them. The process of reflection and searching for these causes sometimes leads individuals to reorganize their expectations and behaviours. Weiner (the original author of the concept of causal attributions) identified three main causal dimensions. Locus of control differentiates internal causes (e.g., the effort made by a student during a task) from external causes (e.g., the difficulty of the task). Stability in time is the second dimension. For example, it is generally understood that the intellectual ability is rather stable for one person, but the effort may vary. Controllability of the cause is a dimension that can refine the evaluation of the stable or unstable character of a cause, depending on whether we are responsible for it. In an academic context, the effort made is generally regarded as an internal, variable, and controllable cause, while the difficulty of a task seems rather external, stable and, uncontrollable to the student. A fourth dimension has been added to the theory of Weiner, the globality of the cause, according to whether the cause can be generalized. For example, a student could perceive himself to be sufficiently competent in all subjects or only in art classes.

This process of reflection (determining the causal attributions of a situation) can influence a student's subsequent expectations, motivation, and behaviours. The author ends the article by presenting the integration of this theory into motivational dynamics, its connection to emotional influences, and its roles in academic success.

**ROBERGE, Julie** (2016). **Comment amener les étudiants à être de meilleurs apprenants? Le questionnaire d'attribution causale comme outil favorisant la maturation de l'apprentissage**, *Pédagogie collégiale*, Vol. 29, No. 3, Spring 2016, pp. 19-24.

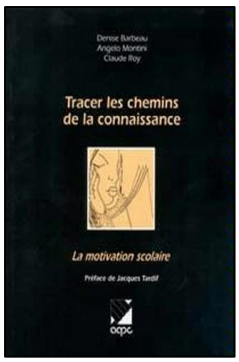
Simple and useful pedagogical intervention, specifically based on the concept of causal attributions, applicable by teachers of any discipline. The questionnaire items lead students to reflect on the causal attributions they formulate and thus influences their engagement in the academic task targeted by the intervention. The author provides excerpts from the questionnaire in the article, but the complete questionnaire is available on the Pédagogie collégiale site.

**BARBEAU, Denise** (1993)**. La motivation scolaire**, *Pédagogie collégiale*, Vol. 7, No. 1, Fall 1993, pp. 20-27.

*La motivation scolaire* is an article that eloquently clarifies the main theoretical elements that underpin Barbeau's motivation model. It ends with an example of a motivational portrait of a student in which we can easily see how various motivational concepts can interact and integrate into the student experience.

**BARBEAU, Denise** (1995). ***Analyse de déterminants et d'indicateurs de la motivation scolaire d'élèves au collégial***, Montreal, Association québécoise de pédagogie collégiale.

*Analyse de déterminants et d'indicateurs de la motivation scolaire d'élèves au collégial* is a conference paper summarizing the study about which the above report is presented. In this paper, the author summarizes and first makes easily understandable her academic motivation model. She explains the literature that is the source of the concepts she chose to include in the model; how she decided to group some of them together; and how she determined the ways to interconnect these concepts to arrive at the model as it is structured in the end. The paper then summarizes the overall objective of the 1994 report: to describe the motivational profiles of college students taking into account various intervening variables (such as gender, age, field of study). This paper is ideal for the reader pressed for time who wants to know the main findings of the study because the findings are in bulleted lists clearly organized according to different variables. The short discussion is very interesting, although primarily focused on the outcomes concerning attribution perceptions, one of Denise Barbeau's preferred motivational concepts.




**BARBEAU, Denise, A. MONTINI and C. ROY** (1997). ***Tracer les chemins de la connaissance : la motivation scolaire***, Montreal, Association québécoise de pédagogie collégiale, 535 pages. (Available at the CDC, Call number 721396)

**BARBEAU, Denise, A. MONTINI and C. ROY** (1997). ***Sur les chemins de la connaissance : la motivation scolaire***, Montreal, Association québécoise de pédagogie collégiale, 264 pages. (Available at the CDC, Call number 721368)

Please do not dismiss this book just because it was published 20 years ago! Among Barbeau's publications, *Tracer les chemins de la connaissance* is the favourite of the practitioner in me. And I am not alone! I think a good way to get interested in this book is to peruse the impressive table of contents. The book is actually a wonderful, well-stocked tool box. It consists of six main parts, the first of which reviews the Barbeau model. The five following

parts involve the three perception systems (attribution, competency, and the importance of the task) and the theoretical model's two main indicators of motivation (cognitive engagement and participation). Each part provides practical information, exercises, questionnaires, suggestions for pedagogical activities to try in class, and to adapt to our own work habits. Much of the material is provided in the form of illustrations as you read. Here are examples of topics covered in the concrete intervention exercises, according to the theoretical elements on which they are based:

| Elements of the theoretical model | Intervention items |
|---|---|
| **Attribution perception** | Unrealistic thinking (Ch. 24)<br>Tendency to catastrophize (Ch. 25) |
| **Perception of self-competency** | How to use your memory well (Ch. 14)<br>Teach and assess knowledge versus competencies (Ch. 15) |
| **Perception of importance** | Teach through problem solving (Ch. 11)<br>Stimulate the development of critical thinking in the course (Ch. 13) |
| **Cognitive engagement** | Facilitate the development of knowledge (Ch. 17):<br>– By calling on students' prior learning<br>– By illustrating with examples<br>– By drawing analogies<br>– By means of systematic review<br>– Using environmental factors<br>Facilitate the transfer of knowledge (Ch. 20) |
| **Participation** | Create a positive classroom environment (Ch. 3)<br>Teach students active learning by getting them to question (Ch. 6) |

Each chapter begins with an explanation of its relevance and a presentation of its advantages for the teacher and for student success, and ends with an honest presentation of the limits of any practical content provided. These clarifications promote greater efficacy in the application of the suggested activities and in adapting the material to our teaching contexts.

The book also includes a student handbook: *Sur les chemins de la connaissance*. This is a collection of activities and advice in five main parts that address the same determinants and indicators of motivation as those addressed in the teacher's handbook. Each part consists of two chapters (three in the case of the part on perception of the importance of the task), the first of which leads students to create a self-portrait of their current motivational state depending on the subject. For example, the part on the perception of self-competency begins with a chapter including a self-assessment of their perceived competency to acquire and use knowledge (Figure 2).[1] This test includes instructions for compiling and understanding the results. Students can thus independently explore their perception of their own competency. Obviously, explanations of the concept involved are provided. These help students to

understand the place of their perception of competency in their motivational state and the potential of this perception to influence academic achievement. Students can thus see the relevance of their path as they read the book.

Following these first chapters of "self-screening," each part includes another chapter with exercises and strategies to try to improve the efficacy of points previously found to need improvement or stimulation to optimize academic motivation and success.

Today, 20 years after the publication of this two-volume work, it would be hoped that a virtual adaptation of its content be put online so that teachers and students who feel the need can download individual items. Furthermore, I would suggest (more emphatically) that teachers and students in college transition programs carefully review these two books by Barbeau and her team.

- **BARBEAU, Denise, A. MONTINI and C. ROY** (1997). ***La motivation scolaire, plans d'intervention***, Montreal, Collège de Bois-de-Boulogne, 185 pages.

Another document I consider to be a methodological model: the process of developing and validating interventions intended for teachers (content in *Tracer les chemins de la connaissance*) and intended for students (content in *Sur les chemins de la connaissance*) is discussed in detail.

◆ *Consignes*

Les énoncés de ce questionnaire se réfèrent à des perceptions et à des attitudes se rapportant au domaine scolaire. Si vous n'avez pas vécu l'une des situations énoncées dans ce mini-test, imaginez quelle serait votre réaction si cela vous arrivait.

IL EST TRÈS IMPORTANT DE RÉPONDRE À TOUTES LES QUESTIONS.

Votre tâche consiste à encercler sur le questionnaire le chiffre qui correspond le plus à ce que vous croyez. Lisez attentivement chacune des questions, puis répondez le plus spontanément possible.

Voici un exemple de ce que vous avez à faire.

**Énoncé**

1. Si je me compare aux autres étudiants de ma classe, je crois avoir de très bonnes connaissances générales.

   Comme il est entièrement vrai que vous croyez avoir de très bonnes connaissances générales, vous encerclez le chiffre 5.

| 1 | 2 | 3 | 4 | ⑤ |
|---|---|---|---|---|
| Entièrement faux | | | | Entièrement vrai |

RÉPONDEZ MAINTENANT AUX ÉNONCÉS SUIVANTS EN ENCERCLANT LE CHIFFRE QUI CORRESPOND LE PLUS À CE QUE VOUS CROYEZ. RÉPONDEZ AUX QUESTIONS LE PLUS SPONTANÉMENT ET **LE PLUS RAPIDEMENT POSSIBLE.**

◆ *Mini-test* *PENSEZ UNIQUEMENT À CE COURS QUE VOUS VENEZ DE CHOISIR*

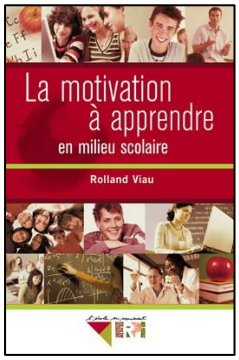
| | 1 Entièrement vrai | 2 | 3 | 4 | 5 Entièrement faux |
|---|---|---|---|---|---|
| 1. Je suis persuadé que je raterai les exercices pratiques exigés dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 2. J'utilise facilement les connaissances théoriques enseignées dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 3. Je comprends facilement les diverses notions enseignées dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 4. Je suis particulièrement habile pour organiser les connaissances théoriques enseignées dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 5. Je comprends difficilement les tâches à accomplir dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 6. Je suis peu habile pour utiliser les concepts enseignés dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 7. J'ai beaucoup de facilité à réaliser les travaux pratiques demandés dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 8. J'ai beaucoup de difficulté à faire le lien entre les diverses notions théoriques enseignées dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 9. Lorsque cela est nécessaire, je suis incapable d'utiliser les connaissances théoriques acquises dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 10. Si je me compare aux autres étudiants, je réussis facilement les exercices demandés dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 11. Je comprends facilement les connaissances pratiques enseignées dans ce cours. | 1 | 2 | 3 | 4 | 5 |
| 12. J'ai vraiment de la difficulté à concevoir comment réaliser les tâches pratiques demandées dans ce cours. | 1 | 2 | 3 | 4 | 5 |

**Figure 2**



[1]There is an error in the measurement scale of some of the quizzes in the student handbook. In the grey box with the instructions, the answer "totally false" is represented by the number 1 and the response "completely true" is represented by the number 5. This scale is correct. However, the headings of the scale have been switched in the quiz. The teacher must instruct students to switch them back before doing the quiz.

## 2.2 Viau model




**VIAU, Rolland** (2009). ***La motivation à apprendre en milieu scolaire***, Saint-Laurent, ERPI, 217 pages. (Available at the CDC, Call number 789021 or 787224)

Developing good competencies depends on sound knowledge. This latest of Rolland Viau's three books echoes this principle, first in its two-part structure (knowledge serving first to understand what is motivation and intervention suggestions subsequently being presented), and second in its formulation: everything proposed in the book is explained, justified, and supported by reliable sources, which gives it credibility. It is a compact volume that knows how to charm the critical reader, especially as the author even explains and justifies the theoretical elements that he chose not to include in his model (which I particularly appreciated).

The main motivational concepts included in this model are the perceived value of the activity (why should I undertake the activity?), perceived self-competency (will I succeed at the activity?), and perceived controllability (can I decide how I want to do the activity?).

At the beginning, Viau explains: "It is important to properly distinguish between a cause and a manifestation [of motivation], because, to solve a problem of motivation, we must address the causes at the source, not its manifestations." (p. 8). For this reason, the Viau model (p. 12 of the book) emphasizes the determinants of motivation.

This model is built from the perspective of how the student approaches a specific pedagogical activity. It should not, however, be assumed that the author has rejected certain important theoretical elements. For example, attributional reasoning (or causal attributions) relate to past events: Why did I fail this exam? This concept has relevance in a more extensive model (such as Barbeau's), which takes into account the influence of the history of academic experience on motivational dynamics. In this case, the intention of the author is to provide a concise model (without being simplistic) of the motivational dynamics of a one-time pedagogical activity. Viau clearly explains the role of attributional reasoning outside the framework of his model by its strong influence on the perception of controllability (degree of control we believe we have in carrying out the task at hand). Another example of an important theoretical element in the field of academic motivation, but one not directly seen in Viau's model, is motivational goals. Viau designs (social, academic, and distant) goals as the sources of the value placed on a specific academic task.

Any teacher who takes into account this model's intervention principles in planning a pedagogical activity will certainly promote functional motivation in students. The table that follows contains examples of intervention principles by corresponding sources of motivation including a more general intervening principle from a study of manifestations of motivation according to the Viau model.

| Sources of motivation | Examples of intervention principles |
|---|---|
| **Perception of value** | **It is important that students perceive the value and usefulness of a pedagogical activity**. To achieve this, the teacher must propose activities that are as meaningful and authentic as possible. (p. 34) |
| **Perception of self-competency** | **A well-deserved success is probably the best stimulant to increase a student's perception of competency**. Because success directly affects the perception of self-competency, teachers must reflect on their evaluation practices, which must not consist of simply penalizing learning; these practices must also promote learning. (p. 44) |
| **Perception of controllability** | **Students must be given the opportunity to make choices in carrying out an activity**. The challenge for the teacher is to know what their responsibility is, what they can delegate, and what they agree to negotiate with students. (p. 50) |
| **Example of a general principle** | **Most students with academic problems think they just have to work harder to solve them**. [...] research findings show that students must not only persevere, they must also change their work methods. (p. 65) |

Viau places his framework of student motivational dynamics at the centre of factors of external influence grouped into four categories: those related to the personal life of the student, to society, to the school, and to the classroom. It is the last category where teachers can act on the student's motivation (the five factors that make up this category are presented in the table below). The author provides five types of instruments for analyzing and detecting potential student motivation problems: an observation grid, surveys, a teaching approach, a quiz, and an interview grid. Teachers can use their instrument of choice. The author also provides six grids for self-observation of teaching practices. Teachers can easily detect the points on which they could act to improve their pedagogy while at the same time having a positive impact on the motivation of their students. Once the needs are determined, teachers can act using the many intervention strategies presented in Chapter 5. Here are a few examples:

| Five classroom-related influencing factors | Examples of intervention strategies |
|---|---|
| **Pedagogical activities** | |
| **- teaching** | Introduce their presentation<br>Submit a problem<br>Finish with a summary |
| **- learning** | An activity must lead to the creation of an authentic product<br>An activity must have an interdisciplinary nature |

| | |
|---|---|
| **The teacher** | Be careful with their expectations of students. Avoid basing them on misinformation, stereotypes, or prejudices<br>Demonstrate consistency between decisions and their implementation<br>Create situations where students see the teacher learn and take pleasure in doing so |
| **Evaluation practices** | Help students to see their progress<br>Give students self-assessment tools |
| **Classroom environment** | Make sure the classroom environment enables each student<br>– to feel safe and respected by others<br>– to dare to voice an opinion without fear of being denigrated |
| **Rewards and penalties** | Promote informative rewards |

The book concludes with a short chapter on the influence of the use of ICTs on learning motivation in the form of 11 questions and answers. It shows that, in and of themselves, ICTs are not an automatic solution. "[...] if we want ICTs to have a positive influence on the motivational dynamics of students, they must meet motivational conditions." (p. 173)

## Related documents

**VIAU, Rolland** (2000). **Des conditions à respecter pour susciter la motivation des élèves**, *Correspondance*, Vol. 5, No. 3.

In this excellent article, the author describes 10 conditions a learning activity should meet to elicit student motivation. They are as follows:

- Be meaningful in the student's eyes
- Be diversified and integrate into other activities
- Represent a challenge to the student
- Be authentic
- Require the student's cognitive engagement
- Make students accountable by allowing them to make choices
- Allow students to interact and collaborate with others
- Have an interdisciplinary character
- Have clear instructions
- Take place over a sufficient period of time

He ends with an excellent grid of 10 questions that can be administered to our students to evaluate the motivational potential of the learning activities they carried out in our courses.

## Two Quebec college studies


**LAPOSTOLLE, Lynn, F. MASSÉ and J. PINHO** (2003). **À propos des garçons et des mesures d'aide en français**, *Pédagogie collégiale*, Vol. 19, No. 2, Winter 2005, pp. 35-38.

This article is a report on *Les garçons et les mesures d'aide en français*, a study by Lapostolle, Massé, and Pinho (2003). The purpose of the study was, on the one hand, to describe the motivational profile of boys whose competency in French was unsatisfactory at the time of entry into Cegep (most of them were enrolled in a remedial French course), and, on the other hand, to identify the winning conditions for the future development of new support measures for success in French, based on the needs expressed by the students themselves. The authors used the Viau model to establish the motivational profile of the 506 participants. The main findings of the study reported in the article show a direct link between the boys' perceptions of their degree of motivation and their results in French. More specifically, it is reported that the difference in performance in French by gender, benefiting girls, echoes the difference in motivational dynamics related to French: the value placed on a French task also distinguishes boys from girls, as well as learning and performance goals they set for themselves in French, and the pleasure felt in contact with French. Moreover, a main ingredient of effective support measures mentioned by participants was the importance of human relationships.

To consult the research report

**LAPOSTOLLE, Lynn, F. MASSÉ and J. PINHO** (2003). ***Les garçons et les mesures d'aide en français: rapport de recherche***, Montreal, Cégep du Vieux Montréal, 233 pages.

**LAPOSTOLLE, Lynn, F. MASSÉ and J. PINHO** (2003). ***About Boys and Remedial Measures in French: article***, Montreal, Cégep du Vieux Montréal, 7 pages.


**LAPOSTOLLE, Lynn, D.-C. BÉLANGER and J. PINHO** (2009). ***Pour une amélioration du français chez les garçons***, Montreal, Cégep du Vieux Montréal, 252 pages.

The findings of the original study led to the 2009 study entitled *Pour une amélioration du français chez les garçons*. Based on the results of the 2003 study, and based on the Viau model, Lapostolle and her team developed and evaluated two intervention strategies targeting boys whose language proficiency is insufficient when entering Cegep. One such strategy, *Au lieu de lire* (a place for reading), aimed among other things at improving motivational dynamics by positively stimulating the value students attributed to reading and their sense of competency in reading; two sources of motivation presented in the Viau model.

In this model, it should be noted that the value students assign to a task is influenced by their interest in the task as well as the utility they assign it in terms of the goals pursued. Basic measurements revealed that boys in the sampling valued reading, believed in it, and considered it important but that this valuing is not reflected in behaviours that would lead to success: "[...] They *believe* but *do not practise* what they

believe." (p. 60) To make them practitioners, the "a place for reading" strategy becomes concrete both physically (a space inside the Cégep du Vieux Montreal library) and virtually, on the college website. The entire corpus of reading texts was available there including, reference books, various resources (e.g., in preparation for the uniform French examination) as well as direct individual or group human assistance, according to the wishes of participants. In short, a sort of French help centre, both physical and virtual, better suited to boys whose language proficiency is insufficient at college entry, thanks to a rigorous taking into account of their needs and profiles.

In terms of the perception of value, no positive results were found: promoting the publications to be studied did not lead boys to consult them. With regard to perceived self-competency, the main outcome discussed concerned the area of individually consulting a tutor, done more by boys than girls, which is positive considering that the French help centre is usually frequented more by girls than boys. There is, however, no comparative measurement of perceived self-competency before and after intervention. Nevertheless, clear recommendations are made with regard to motivational dynamics—among others, that the corpus of mandatory reading in French should better reflect the interests of boys and the opportunity to choose from works to read should stimulate students' sense of controllability.

## 2.3 Self-determination theory

**RYAN, Richard M., and E.L. DECI** (2000). **Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions**, *Contemporary Educational Psychology*, Vol. 25, No. 1, January 2000, pp. 54-67.

Self-determination theory is part of a humanistic approach to motivation. It was developed by Edward Deci and Richard Ryan in 1985.[2] In this article, Ryan and Deci present an update of their theory in the light of relevant studies conducted since its publication. They begin by explaining the general rationale behind their conceptualization of motivation: they distinguish types of motivation based on the reasons that move people to action. The authors define three major types of motivation, well known in education: intrinsic (doing an activity for enjoyment), extrinsic (doing it for reasons external to the activity, such as graduation or avoiding sanctions), and finally, amotivation (lacking an intention to act), with intrinsic motivation representing the highest degree of self-determination. The quality of the experience and of performance will vary according to the type of motivation.

What is of interest in this article is that it reviews the subtypes of extrinsic motivation and their relevance. The authors show that a person can be extrinsically motivated to complete a task even though feeling resistance or disinterest, or that they can still get energetically involved because they see it as being useful or important to their goals. In both cases, the behaviour is voluntary for external reasons (extrinsic motivation). However, in the first case the person (student) feels controlled or obliged to perform the task while in the second, he or she appropriates the external reasons for engaging in the task. It can be expected that these two types of extrinsic motivation lead to different qualities of engagement in the task. It is thus unwise to expend all our efforts on intrinsic motivation and to ignore

[2]The CDC recently acquired the original book. For more in-depth information, consult:
**DECI, Edward L., and R.M. RYAN** (1985). ***Intrinsic motivation and self-determination in human behavior***, New York, Plenum, 371 pages. (Available at the CDC, Call number 789041)

extrinsic motivation. We should instead try to push students as far right as possible in the self-determination continuum presented in Figure 1 of the article.

Extrinsic motivation is divided into four subtypes that enable us to fine-tune the degree of self-determination expressed by the person for a given task. The explanation of these subtypes is far more concise in this article than in the original work, which may be relevant when first reading about the theory. The main interest for our teaching practice is a reminder of the conditions to put in place that promote, as much as possible—among students (and us as teachers)—and support intrinsic motivation and facilitate integration. The three main conditions are meeting the needs of autonomy, competency, and relatedness, with meeting the needs of autonomy being the most important. A person who has the freedom of choice (hence, autonomy) to do an activity will feel much more self-determined than a person who feels pressured or controlled to do it. An intervention supporting the student's autonomy should thus foster a more intrinsic motivation, associated with greater pleasure and interest. In contrast, control-oriented teaching methodologies could adversely affect self-determination. If, in our teaching strategies, we manage to develop ways to come closer to meeting the three needs, student perceptions would then logically move from an external locus of control to one that is more internal.

## Related documents

To read about self-determination in French, among the documents available at the CDC, I suggest this article by Robert Vallerand.

- **VALLERAND, Robert J. et al.** (1990). ***Construction et validation de l'échelle de satisfaction dans les études***, Montreal, Université du Québec à Montréal, Laboratoire de psychologie sociale, 42 pages. (Available at the CDC, Call number 706094)

Moreover, just as this bulletin was going to print, I learned that a book in French on self-determination theory had just been published. Being so close to the publication deadline, it is not possible for me to read and comment on the publication in time. But I venture to recommend it anyway, based on the enthusiasm I felt in reading its table of contents. ☺ I would however state that the book seems to paint a complete portrait of the theory that does not apply only to education.

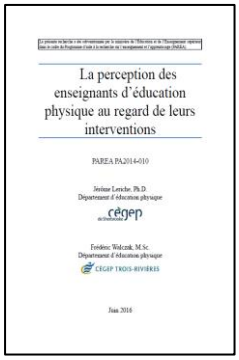
- **PAQUET, Yvon, N. CARBONNEAU and R. VALLERAND** (2016). ***La théorie de l'autodétermination : aspects théoriques et appliqués,*** Bruxelles, De Boeck, 392 pages. (Available at the CDC, Call number 789055)

## Two college studies


AU-DELÀ DE LA RÉUSSITE SCOLAIRE : COMMENT INTÉRESSER LES ÉTUDIANTS À NOTRE DISCIPLINE ?

**LERICHE, Jérôme, F. WALCZAK and C. GRAVEL** (2015). **Au-delà de la réussite scolaire : Comment intéresser les étudiants à notre discipline?**, *Pédagogie collégiale*, Vol. 28, No. 3, Spring 2015, pp. 16-22.

Leriche and Walczak conducted a study[3] the aim of which was, among others, to explore the motivation of college students (a sampling of 1,886 participants) to perform physical activity in and outside of physical education classes. They used Deci and Ryan's Self-Determination Theory as a basis for measuring motivation. Moreover, there is a very concise summary of the theory in their article, which is interesting for the neophyte who, from a glance at the first page, can understand the basis of this conceptualization of motivation. The article first presents outcomes that confirm findings in the scientific literature on the topic. Two examples: men are more active than women; people who are more active are more motivated to practise a physical activity than sedentary people. These outcomes are useful, among other things, for their contribution to the indication of compliance with the sampling found in the scientific literature. Had exploratory findings been the inverse of those in the literature, it would have signaled caution in interpreting the other outcomes of this study. The article also brings a new element to the study: it seems that college-level physical education courses have a positive influence on doing activities outside the classroom. In fact, the report states that as the number of physical education courses completed increases over the school path, the number of students who are active outside of class also increases, and the number of sedentary students decreases. The findings lead the authors to suggest that interventions should be carried out in courses to stimulate intrinsic motivation so as to make students even more autonomous in practising physical activities outside their classes.


La perception des enseignants d'éducation physique au regard de leurs interventions

PAREA PA2014-010

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Juin 2016

**LERICHE, Jérôme, and F. WALCZAK** (2016). ***La perception des enseignants d'éducation physique au regard de leurs interventions***, Sherbrooke, Cégep de Sherbrooke, Trois-Rivières, Cégep de Trois-Rivières, 164 pages.

**LERICHE, Jérôme, and F. WALCZAK** (2016). ***Perceptions of physical education teachers regarding their interventions***, Sherbrooke, Cégep de Sherbrooke, Trois-Rivières, Cégep de Trois-Rivières, 13 pages.

In this publication, Leriche and Walczak conducted a second PAREA study from 2014 to 2016 to analyze the perceptions of physical education teachers regarding their interventions to promote physical activity among college students. They used self-determination theory as a basis for their analysis. One of the outcomes indicates that teachers attach great importance to interventions related to intrinsic motivation, in other words, they hope that after their interventions, students will play sports for fun. Moreover, during group interviews with

[3]LERICHE, Jérôme and F. WALCZAK (2014), ***Les obstacles à la pratique sportive des cégépiens***, Sherbrooke, Cégep de Sherbrooke, Trois-Rivières, Cégep de Trois-Rivières, 116 pages.

LERICHE, Jérôme and F. WALCZAK (2014), ***Cégep students' obstacles to participation in sports*****,** Sherbrooke, Cégep de Sherbrooke, Trois-Rivières, Cégep de Trois-Rivières, 10 pages.

teachers, researchers identified their main interventions by the type of motivation they stimulate. Ensuring that students experience success while doing the activities and encouraging students to set meaningful goals seem to elicit intrinsic motivation.

## 2.4 Expectancy-value theory

**WIGFIELD, Allan, and J. ECCLES** (2000). **Expectancy-Value Theory of Achievement Motivation**, *Contemporary Educational Psychology*, Vol. 25, pp. 68-81.

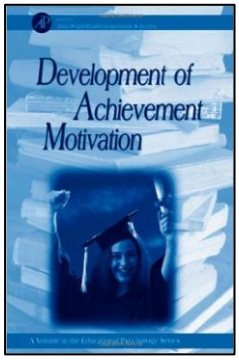
This article presents the theory developed by Jacquelynne Eccles and Allan Wigfield, first by distinguishing between other theories of motivation, and then by reporting the findings of studies conducted in a school context and based on the expectancy-value theory. It should be noted that the more academic motivation is studied, the more we find overlap between specific concepts used in the macro-models, which fine-tunes our analysis of these concepts. For example: the theory proposes that persistence and performance are the result a student's expectations of success in a task and the value he or she places on it. In other words, the person evaluates their task success potential (expectations) and its matching with the goals pursued (value of the task). The result of this assessment will determine their motivation, choice to engage in the task, and performance. In this theory, we recognize the concept of self-efficacy associated with Bandura (which we also see in Barbeau and Viau's theories), since the person will be influenced by their sense of self-competency to estimate their chances of succeeding at the task.

The authors present four components of achievement values placed on a task: intrinsic value, attainment value (importance), utility value, and cost. Intrinsic value is defined here as the interest in or enjoyment gained from doing the task, which overlaps with Deci and Ryan's concept of intrinsic motivation and resembles Hidi and Renninger's interest concept (discussed below).[4] The concepts of attainment and utility value remind us of Ryan and Deci's extrinsic motivation.

Because this is a macro-model (it includes several concepts), the reader should step back and understand the intellectual intention in order to distinguish between models that resemble it at first glance. For example, self-determination theory studies motivation by looking at what is behind it (the reasons underlying the intention to act), and expectancy-value theory, by looking at what is ahead (the expectations of success and value of the task to be completed).

[4] In Section 2.3 of Cabot's work, there is an explanation of the subtle distinctions between intrinsic value, intrinsic motivation, and interest: **CABOT, Isabelle** (2010). ***Interdisciplinarité et intérêt pour le français***, Saint-Jean-sur-Richelieu, Cégep Saint-Jean-sur-Richelieu, 192 pages.

### For more information




**WIGFIELD, Allan, and J. ECCLES** (2002). ***Development of Achievement Motivation***, San Diego, Academic Press, 365 pages.

In this book, the authors of Expectancy-Value Theory discuss the development of academic motivation starting in childhood and provide numerous references to the conceptual elements of their theory.

## A Quebec college study

**NOËL, Marie-France, S. BOURDON, and A. BRAULT-LABBÉ** (2015). **"My best course ... thanks to the instructor!": faculty contributions to students' perceived value of courses**, *Pédagogie collégiale*, Vol. 28, No. 4, Summer 2015, pp. 18-23.

In the context of her doctoral thesis, Marie-France Noël used the Eccles and Wigfield model to study, among others, the influence of teachers on the value college students place on the courses they take. The thesis develops in depth the four components of value conceptualized by Eccles and Wigfield. Table 1 of the article provides an overview of this conceptualization by clearly describing each of the four components in order to distinguish between them. The authors then highlight three important elements of influence on teachers: the perception students have of their personality (especially humour and passion), their disciplinary competency (e.g., professional experience in the field taught), and their teaching skills (e.g., clear, structured presentation of material or teaching methods). Several of these elements of influence give power to the teacher in regard to the influence they can exert on student motivation. Furthermore, the authors state that the student-teacher relationship can also be marked by elements beyond the teacher's control, such as the number of students per group or selection of course content.

The article concludes with a table summarizing the elements, according to each of the four components, that can affect the value placed on a course by students, specifically through the influence of the teacher. The table also suggests questions that may arise as teachers to help us think about the power of constructive influence that we can have on the value our students give our courses and to improve if desired. In my opinion, this is a useful article that can help improve student-teacher relationships.

### Thesis

**NOËL, Marie-France** (2013). ***Choix scolaires, perception de la valeur des études et relations sociales de jeunes québécois au postsecondaire : une analyse qualitative longitudinale***, Sherbrooke, Université de Sherbrooke, 396 pages.

# 3. The Concept of Interest

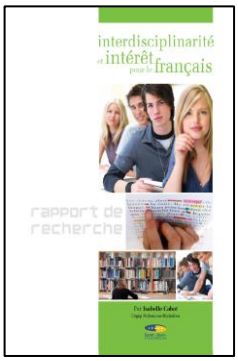

**RENNINGER, K. Ann, and S. HIDI** (2016). ***The Power of Interest for Motivation and Engagement***, New York, Routledge, 189 pages.

This recent book on the concept of interest presents the reader with various widespread misconceptions; for example, of thinking that interest is static; of students as present or absent, or forgetting to consider the potential of interest to develop. Another example, many see interest as something that is innate such as an interest in Math—either you have it or you don't. However, research shows that we can support the emergence of new interest at any age. These examples of misconceptions, and others, encourage us to continue reading this book.

While the first chapter is devoted to defining the concept, I would say that reading the entire book provides a comprehensive understanding of what interest is. The formal definition supplied by the authors is worth noting because it integrates two aspects usually treated independently in the literature: interest as a state felt during a task *and* as a motivational disposition to eventually engage in a task. They explain how these two aspects are in fact interconnected by their mutual influence. They also present their four-phase model of interest development in the very first chapter, but reuse it throughout the book to illustrate explanations and case examples, which ensures its assimilation. Studying the model enables readers to assess their level of interest in a subject and to devise appropriate strategies to develop them further.

Teacher-readers will understand that they must at least know their students a little to be able both to assess their level of interest in the subjects they want to make them study and to stimulate them adequately. That is to say, it is not enough to ask if they are interested in the subject. For example, students who have had little contact with the subject or have had contact with it without feeling any positive emotion, or who ask the teacher to just tell them what to do, probably have very little interest in the subject, compared to other students who show curiosity through questions or who persist in looking for solutions to difficulties in learning. The interest of both these kinds of students can be stimulated by teachers, but they will have to use different strategies. In fact, although all phases of developing interest involve emotional and cognitive ingredients, their compositions are different, both qualitatively and quantitatively, even contextually. For example, to stimulate students with little interest in the learning content, it might be wise to pique their curiosity by connecting this content to other content they know well and for which they have a well-developed interest; to stimulate students already interested in a subject, it would be more strategic to provide a source of new information or propose a challenge in keeping with their knowledge.

## Quebec college studies




- **CABOT, Isabelle** (2010). ***Interdisciplinarité et intérêt pour le français***, Saint-Jean-sur-Richelieu, Cégep Saint-Jean-sur-Richelieu, 192 pages.
- **CABOT, Isabelle** (2010). ***Stimulating the Interest of College Students Registered in the Preparatory French Course: Evaluation of a Cross-Curricular Intervention***, Saint-Jean-sur-Richelieu, Cégep Saint-Jean-sur-Richelieu, 9 pages.

For this study, I took on the challenge of establishing explicit connections between the content of a course disliked by students (preparatory French) and those of a popular course (psychology of sexuality) would help stimulate interest in French among experimental participants, compared to a control group of participants. Measurement of interest, taken at the beginning and end of the semester, effectively showed that interest in the French course had increased for students in the experimental group. It was also found that their performance in the French course was far superior to that of students whose interest had not been stimulated through interdisciplinary pedagogy. Two reports are available relating to this study: a more qualitative report (PAREA) and a more quantitative one (doctoral thesis). Chapter 2 of these reports contain a good review of the literature on the concept of interest. There is also a summary of the distinctions between different motivational concepts (interest, utility value, sense of self-competency).

### For a summary of the pedagogy used in this study

- **CABOT, Isabelle, and F. CLOUTIER** (2010). **Apprivoiser une bête noire**, *Pédagogie collégiale*, Vol. 24, No. 1, Fall 2010, pp. 20-25.

### For an overview of study results

- **CABOT, Isabelle** (2010). **L' Interdisciplinarité: Un moyen d'aiguiser l'intérêt pour le français**, *Correspondance*, Vol. 16, No. 1.

### Thesis

- **CABOT, Isabelle** (2012). ***Le cours collégial de mise à niveau en français: l'incidence d'un dispositif pédagogique d'interdisciplinarité***, Montreal, Université de Montréal, 121 pages.


- **CABOT, Isabelle, and M.-C. LÉVESQUE** (2014*). **Intégration des TIC et motivation en français***, Saint-Jean-sur-Richelieu, Cégep de Saint-Jean-sur-Richelieu, 179 pages.
- **CABOT, Isabelle, and M.-C. LÉVESQUE** (2014). ***ICTs Click!: Stimulating students' interest through the integration of ICTs in the classroom***, Saint-Jean-sur-Richelieu, Cégep de Saint-Jean-sur-Richelieu, 8 pages.

The intuition of a French teacher (Marie-Claude Lévesque) led to another approach: the extensive use of various ICTs as a means of stimulating interest in French among students enrolled in a remedial French course. Again, an experimental group was compared to a control group. It was found that the use of

ICTs actually led to a greater interest in the remedial French course in the experimental group as well as better performance in the course material.

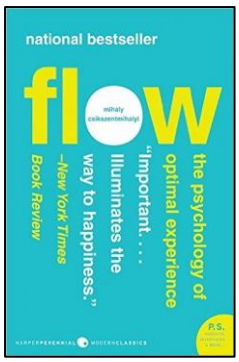
**For a summary of this study**

- **CABOT, Isabelle, and M.-C. LÉVESQUE** (2014). **Avec les TIC, ça clique! : Stimuler l'intérêt des collégiens par l'intégration des TIC en classe**, *Pédagogie collégiale*, Vol. 28, No. 1, Fall 2014, pp. 18-23.

## 3.1 A related concept: Flow

Flow is the optimal motivational state. It is what is felt by a person when they are completely absorbed by the task they are carrying out. During flow, intense positive emotions act together with knowledge and competencies used to succeed in the task. The person feels intense concentration, loses all track of time, space and self-awareness, and feels in control of the situation.

**To read more about the flow state**




- **CSIKSZENTMIHALYI, Mihaly** (1990). ***Flow: The Psychology of Optimal Experience***, New York, Harper Perennial, 303 pages. (Available at the CDC, Call number 789046)

# 4. Conclusion

There are many more motivational concepts and macro-models on academic motivation than those presented here. I nevertheless believe that this bulletin is a good introduction.

Also, keep in mind that every motivational element is conceptualized in a distinct way, depending on the authors, who have based themselves on a body of literature. For example, if there is a reference to self-efficacy or to a sense of self-competency, we know that both cases involve a cognitive self-assessment of one's ability to do things well. However, in the details, we see that when the authors refer to a very specific context they use the term "self-efficacy" more, while those that refer to a broader context talk of a "sense of self-competency." For example, my sense of self-competency in French versus my perceived self-efficacy to write a poem. In short, despite the great amount of information on academic motivation, with careful study, we can find our way around. I hope this bulletin will encourage you to continue exploring this exciting field of knowledge.

# About the Author

Isabelle Cabot holds a doctorate in psychopedagogy from Université de Montréal. She has been teaching psychology at Cégep Saint-Jean-sur-Richelieu since 2004. Her main focus of interest in research is the motivation of college students who have difficulty succeeding. In practical terms, she has developed expertise in assessing the impact of various teaching strategies on motivation and success. On the theoretical level, her main expertise is in the processes for developing academic interest. She is a research methodology consultant and is very active in fostering and developing college research.

Most of the documents referred to in this Bulletin are available online or upon request from the Centre de documentation collégiale (CDC).

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