

Learning Strategies of Students Attending a “Second Chance” School

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This study was conducted in Quebec with 608 students (aged 16-19) in four “second chance” schools of the greater Montreal area. The objectives were twofold: (a) to identify the strategies of these students in the context of five learning activities; and (b) to compare the strategies of students who had withdrawn from school after their mandatory attendance period (age 16-17) with those of students exceeding the age limit for high school (age 18-19). Results from a self-reported questionnaire in French show that the students lack many learning strategies, particularly for two of the five activities. The differences between the two groups always favor the older students and pertain to a specific aspect of the activity. These results argue for differentiation in research and classroom practices according to the activities presented to the students and according to the two age groups.

Cette étude a été réalisée au Québec auprès de 608 élèves (âgés de 16 à 19 ans) de quatre écoles de « raccrocheurs » de la région métropolitaine de Montréal. La recherche a poursuivi deux objectifs : (a) identifier les stratégies des élèves « raccrocheurs » dans le cadre de cinq activités d'apprentissage; et (b) comparer les stratégies des élèves qui avaient abandonné l'école après la période de fréquentation obligatoire (16-17 ans) à celles des élèves qui avaient dépassé l'âge limite de fréquentation de l'école secondaire (18-19 ans). Les résultats à un questionnaire validé en français indiquent que tous les élèves, en général, disent avoir recours à un nombre restreint de stratégies d'apprentissage, notamment dans deux des cinq activités. Les différences entre les deux groupes favorisent toujours les élèves plus âgés et sont pertinentes pour un aspect spécifique de l'activité. Ces résultats militent en faveur d'une différenciation de la recherche et des pratiques pédagogiques selon les activités présentées aux élèves d'une part, et les deux groupes d'âge d'autre part.

Context

The interruption of school attendance after the mandatory period, but before graduation from high school is a significant social phenomenon of increasing concern to Western societies (Langevin, 1999). Yet obtaining a Diploma of Secondary Studies (DES) is becoming a major precondition for success for today's youth (Bushnik, Barr-Telford, & Bussière, 2004). Nevertheless, in Western countries, the number of students who withdraw from school without obtaining a diploma is estimated at approximately 20% (Langevin, 1999). In Quebec, for example, 28% of 19-year-olds did not have a DES in 2007–2008 (Ministère de l'Éducation, du Loisir et du Sport, 2009), although most students typically complete theirs by the age of 17. The mandatory period of attendance ends at age 16, whereas the limit for leaving high school is 18.

More recently, the rate of graduation seems to have improved, but withdrawal continues to be a cause for concern. Numerous studies have addressed the causes of withdrawal including school failure (Hrimech, Théorêt, Hardy, Gariépy, 1993; MacMillen & Kaufman, 1994).

About 71% of students who drop out of school admit that they wish to return (Royer, Moisan, Payeur, & Vincent, 1995). Special schools are available to them in Quebec (Bouchard, Saint-Amant, & Côté, 1993). The “second chance” schools are “a physical setting offering a programme of general secondary education for students aged 16 to 19 who have withdrawn from regular high school before obtaining a Diploma of Secondary Studies” (Bouchard et al., 1993, p. 5). The curriculum, academic requirements, and pedagogical methods (especially the lecture format, exercises, and individual study) in this school setting are similar to those found in regular schools. The differences reside in the format of education: it is scheduled in five-month semesters rather than over an entire academic year; it includes three-hour class periods once a week rather than single hours spread throughout the schedule; and it offers students support in the form of remediation and times when they can meet their teachers privately. These “second chance” schools welcome two groups according to the teachers: students aged 16 and 17 and students aged 18 and 19. Students in the former group left regular high school when they reached the legal age to do so (16) or shortly thereafter (17), although they are still eligible to attend regular school. Students in the latter group are beyond the age limit for attending regular school (18 or 19) and must change establishments. Both groups try to complete a DES in a “second chance” school setting.

Nonetheless, returning to school proves a difficult experience for some (Charest, 1997), and 27% will probably withdraw again (Bourbeau, 1992). Their academic and personal histories, which are often chequered, may contribute to the difficulties of returning to school and lead to a second withdrawal for some, especially the youngest. Other factors stemming from their academic situation such as gaps in their *learning strategies* and poor *academic motivation* may also explain the problem. *Learning strategies* help the student to analyze, remember, retrieve, and express information when performing activities. United States and Australian studies (Baldwin, 1993; Goldman & Bradley, 1997) support the significance of this factor and argue that the most problematic features for students in “second chance” schools and continuing education are their weak learning strategies. Admittedly, some of these students have experienced repeated failures in traditional schools. Moreover, weak, at risk, and underprivileged students tend to use fewer learning strategies and use them less efficiently or inappropriately for the task at hand (Baldwin, 1993; Butler, 1998; Cartier, 2006; Cartier, Butler, & Janosz, 2007; Fortier, 1995; Gersten, Fuchs, Williams, & Baker, 2001; Goldman & Bradley, 1997; Langevin, 1998; Weinstein & Mayer, 1986; Zimmerman, 2000).

What, then, are the learning strategies of “second chance” students? Few studies have addressed the issue (Fortier, 1995). Accordingly, the objectives of the present study are (a) to establish the learning strategies of “second chance” students for five learning activities, and (b) to compare these learning strategies of students who are still allowed to attend high school (aged 16–17) with those of students who have exceeded the age limit (aged 18–19).

Theoretical Framework

Our research was inspired by Bandura’s (1986) *sociocognitive* approach to learning, including its central element, reciprocal determinism (i.e., the triadic reciprocity between the fundamental components of learning: the environment, the student, and his or her behaviors). Our

framework takes the environment into account while being contextualized into familiar classroom activities (Weinstein, Husman, & Dierking, 2000), for example, learning through reading, learning in class, carrying out a project, studying for a test, and taking the test. From this point of view, it is aligned with a *situated learning* perspective (Brown, Collins, & Duguid, 1989; Cartier, 2000; Hadwin, Winne, Stockley, Nesbit, & Woszczyzna, 2001; Winne & Perry, 2000).

The students and their behaviors are also acknowledged through the integration of their learning strategies and motivation. Learning strategies include, among others, cognitive and self-regulated strategies. Cognitive strategies consist of behaviors and thoughts that enable learners to get involved in the learning activity and that affect their information-coding processes (Cartier, 2000; Smith, 1982; Vauras, 1991; Weinstein & Hume, 1998; Weinstein & Mayer, 1986). They are used purposefully and can be tailored to a specific activity (Cartier, 2000). Among them are the strategies of organization (e.g., making an outline), elaboration (e.g., summarizing), rehearsal (e.g., rereading), and selection (e.g., scanning headings). Self-regulation consists of behaviors and thoughts oriented toward the planning, assessment, and management of the activity and learning process and the affective components of learning (e.g., emotion, motivation, Cartier, 2000; Pressley & Afflerbach, 1995; Zimmerman, 1994, 2000). Self-regulated strategies include planning, monitoring, adjustment, and self-evaluation of the strategies for the activity and the learning itself. Our theoretical and research design framework thus considers the reciprocal relationship between the influencing factors of the students' school environment and their personal characteristics and behaviors.

Methods

This is a descriptive and comparative study. The participants came from four "second chance" schools in the greater Montreal area. They were 608 students aged 16-19 (average age 18.6 years), of whom 277 were girls (45.6%) and 322 were boys (53.0%). Of the whole group, 470 students (79.9%) spoke French at home. Students who had been attending their school for at least six months either full time or part time were eligible. Of the group, 22.8% said that they had dropped out of school during a certain period.

Data were collected during class time in the fall semester by means of a questionnaire in French. The teachers collected data by following a recording protocol that was distributed to them. It took about 30 minutes to complete the questionnaire. As this tool was designed to be used by teachers, and as the teachers themselves had requested it, we agreed that they proceed in this manner.

Data on learning strategies were obtained through a questionnaire developed and validated for this study. The questionnaire was inspired by other instruments (Langevin, 1998; Pintrich & Garcia, 1994; Weinstein & Palmer, 1990; Weinstein, Palmer, & Shulte 1987; Zimmerman & Martinez-Pons, 1986). Our questionnaire, however, is distinguished by assessing five academic activities separately (Winne & Perry, 2000); it includes cognitive strategies and self-regulation strategies specific to each of these activities, and the learning strategies are presented in the sequence of the steps needed for completing the activity: beginning, middle, and end. The questionnaire is divided according to five learning situations: *the completion of a project* (14 items), in which the students take responsibility for the completion of work; *learning a subject through reading* (18 items); *attending class* (11 items), which includes lectures and exercises; *studying for a test* (13 items); and *taking a test* (13 items). The questionnaire is self-scored. The

items use a five-point Likert scale ranging from *never* to *almost always*. For each learning activity, the questionnaire provides the definition of the activity and an example followed by the items to be answered.

The questionnaire was validated as follows. For questions on learning strategies, the two researchers first identified a list of cognitive strategies and self-regulation strategies that were relevant to each of the targeted activities. The relevance was established through their earlier work on the subject including the elaboration of questionnaires on some of these situations (Cartier, 2003; Langevin, 1998; Théorêt, Cartier & Chouinard, 2003; Viau, Cartier & Debeurme, 1997), the learning strategies' presence on other similar questionnaires, and their presentation in textbooks on learning strategies. Subsequently, the relevance, comprehensiveness, and clarity of the items were evaluated by six researchers and contributors who are recognized as experts in the field, for the eight initially selected learning contexts: completing a team project, completing an individual project, learning through reading, attending class, doing exercises, completing work, studying for a test, and taking a test. The clarity of the items was also evaluated by 10 "second chance" students in an interview. Adjustments were made to the questionnaire as a result of these activities. The second version of the questionnaire was piloted with 373 students. An exploratory factor analysis (principal components) with Varimax rotation revealed that the items should be grouped into five factors rather than eight, and the necessary adjustments were made. We found the following key factors: completing a project, learning through reading, attending class, studying for a test, and taking a test. The factor analysis (principal components) with Varimax rotation of the present study ($N=608$) confirmed this five-factor structure with the exception of a few items, which were withdrawn from the analyses. Through this analysis, the exclusivity of the items according to the activities was established. The resulting Chronbach alphas were 0.8 or higher, indicating good reliability, as follows: completing a project ($\alpha=.8640$), learning through reading ($\alpha=.8988$), attending class ($\alpha=.8767$), studying for a test ($\alpha=.8884$), and taking a test ($\alpha=.8846$). The data were compiled with the program *Word Pad* and transferred into *Statistical Package for the Social Sciences* (SPSS).

Results

We present the results derived from the two research objectives in connection with the learning activities. In each activity and for each learning strategy, we calculate the sum of the responses *often* and *almost always* because the research question focuses on students' perceptions of what they do in the task. We consider that the sum of the responses will represent what they perceived they did *most often*. Then the frequencies of the responses *most often* (*often* and *almost always*) are compared for the students still allowed to attend high school and for those exceeding the age limit. The significance of the differences were analyzed with a chi-square analysis.

Attending Class

For the activity *attending class*, the questionnaire offers the following definition: "Attending class is a learning situation during which the teacher explains the material to the students in a lecture format and asks them to apply what has just been presented by answering questions (in writing) or by solving problems (exercises)." Table 1 shows the frequency and percentage of the combined responses *often* and *almost always* for each learning strategy, as well as a comparison

Table 1
Learning Strategies for the Activity of Attending Class

Learning strategies	Percentage ¹	Comparison of the age groups ²		<i>p</i> value
		16–17	18–19	
1 Before a class, I review the material from the previous class session.	21.9	19.7	26.4	.093
2 Before a class, I set myself a goal to achieve.	27.0	24.7	33.6	.040*
3 Before engaging in an exercise, I clarify its main objective.	45.6	42.0	55.0	.008**
4 Before engaging in an exercise, I choose the appropriate methods for completing it.	52.5	56.4	51.5	.316
5 While doing an exercise, I ask myself questions so as to improve my understanding.	43.1	42.0	46.4	.364
6 While doing an exercise, I take the time to ask myself whether the work is going well.	50.5	48.7	55.0	.196
7 While doing an exercise, I revisit its main objective to determine whether I am on the right path.	66.3	65.6	71.4	.201
8 At the end of a class, I organize the information in a table.	12.3	11.4	12.1	.812
9 At the end of a class, I try to change my methods of working, if necessary.	23.4	23.5	20.7	.494
10 At the end of a class, I make sure that I have achieved the objective.	50.0	50.1	52.1	.678
11 After a class, I review what has been presented.	29.1	26.6	36.4	.027*

¹Percentage of results obtained by adding the responses *Often* and *Almost Always*.

²Results obtained with the chi-square test.

* $p < .05$, ** $p < .01$.

of these combined frequencies according to the age groups of the participants.

In the activity *attending class* for the whole group of participants the learning strategies reported as being used *often* or *almost always* by the participants are about the methods and objectives for the exercises to be completed. The learning strategy most reported is: *While doing an exercise, I revisit its main objective to determine whether I am on the right path* (66.3%) followed by *Before engaging in an exercise, I choose the appropriate methods for completing it* (52.5%); *While doing an exercise, I take the time to ask myself whether the work is going well* (50.5%) and *At the end of a class, I make sure that I have achieved the objective* (50.0%). The learning strategies reported as used less frequently focused on revision and organization of the information: *Before a class, I review the material from the previous class session* (21.9%) and *At the end of the class, I organize the information in a table* (12.3%).

As for the differences between the youngest (aged 16-17) and oldest (aged 18-19) students, we observed three learning strategies that favored the latter focus on planning and reviewing: *Before engaging in an exercise, I clarify its main objective* ($p < .01$); *Before a class, I set myself a goal to achieve* ($p < .05$); and *After a class, I review what has been presented* ($p < .05$).

Completing a Project in a Team or by Oneself

The activity *completing a project in a team or by oneself* is described on the questionnaire as follows: “a situation in which you must take full responsibility, by yourself or in a team, for the completion of work agreed upon with the teacher.” Our findings on the learning strategies reported are presented in Table 2.

In the activity *complete a project*, in general learning strategies are reported being used frequently. We observed the aspects of completing the work, for example, *I first clarify what has to be done* (70.7%); management of materials, *I plan what material will be useful to the project* (64.0%); division of the workload among the team members such as *In team projects, we share the workload* (85.9%). The learning strategies reported as used less frequently relate to team work and task management, for example *At the end of a team project, we assess how we worked together as a group* (37.7%) and *I list the steps to carry out the project* (41.0%).

Table 2
Learning Strategies for the Activity of Completing a Project

Learning strategies	Percentage ¹	Comparison of the age groups ²		<i>p</i> value
		16–17	18–19	
1 I first clarify what has to be done.	70.7	70.2	72.1	.664
2 For this project, I list the available resources that may help to answer questions.	38.2	33.6	51.4	.000***
3 I list the steps to carry out the project.	41.0	37.9	49.3	.018*
4 I plan how much time will be needed to complete each step of the project.	38.3	36.2	44.3	.087
5 I plan what material will be useful to the project.	64.0	62.6	67.1	.338
6 In team projects, we share the workload.	85.9	84.9	88.6	.277
7 I assess my approach and readjust when necessary.	49.3	47.3	55.0	.113
8 I motivate myself by checking my progress.	57.4	55.6	60.0	.358
9 I try to answer one question at a time.	69.9	69.9	72.1	.615
10 I check what knowledge I have acquired.	42.9	40.5	51.1	.029*
11 I know how I could do it better now.	59.7	59.7	60.4	.881
12 At the end of a team project, we recap the steps we took.	34.9	32.9	41.0	.084
13 At the end of a team project, we know how to better share out the workload.	61.2	61.1	64.0	.543
14 At the end of a team project, we assess how we worked together as a group.	37.7	36.7	43.2	.176

¹Percentage of results obtained by adding the responses *Often* and *Almost Always*.

²Results obtained with the chi-square test.

* $p < .05$, *** $p < .001$.

As for the differences between the youngest and oldest students, we observed three learning strategies that favored the latter. These are about the management of resources: *For this project, I list the available resources that may help to answer questions* ($p < .001$); the process to use, *I list the steps to carry out the project* ($p < .05$); and assessment of knowledge acquired, *I check what knowledge I have acquired* ($p < .05$).

Learning through Reading

The activity *learning through reading* is defined in the questionnaire as follows: "A process or learning situation in which the reader/learner aims to master a subject through reading while simultaneously managing his working environment and the completion of the task" (Cartier, 2000, p. 93). Table 3 presents the results.

Generally, for the activity *learning through reading*, the learning strategies reported most frequently focused on the content of the text, for example, *I pay attention to pictures and subtitles to determine the topics addressed in the text* (69.7%); connections between the content and the student's own knowledge, *I try to link what I read to what I already know* (54.1%); and

Table 3
Learning Strategies for the Activity of Learning Through Reading

	Learning strategies	Percentage ¹	Comparison of the age groups ²		<i>p</i> value
			16–17	18–19	
1	I determine what I want to find in my reading.	49.0	46.7	55.4	.075
2	I ask myself what I would like to learn about the topic.	51.2	48.1	61.9	.005**
3	I consider the topic taught in class and its link with the text.	49.8	47.2	62.6	.002**
4	I pay attention to pictures and subtitles to determine the topics addressed in the text.	69.7	69.0	74.8	.189
5	I first skim through the whole text.	49.2	48.7	51.8	.526
6	I make sure I know what my teacher expects of me.	52.3	50.0	59.7	.047*
7	I underline the main information with a marker.	60.5	59.5	69.3	.038*
8	I organize the main ideas in a table or a diagram.	23.2	21.3	28.6	.078
9	I summarize what I have read in my own words.	48.4	47.9	51.4	.465
10	I try to link what I read to what I already know.	54.1	53.2	58.6	.269
11	I ask myself questions to determine whether I have understood the new information.	41.9	39.8	45.0	.482
12	I try to understand information by paying attention to connecting words (however, in addition ...).	37.8	38.2	39.3	.827
13	I write key words, symbols, and rules in the margin or in my notes.	38.2	36.5	41.7	.615
14	I review all the main points in the text to make sure that I have understood them.	49.3	48.6	52.5	.420
15	I ask myself questions about what I clearly understand and what I need to clarify.	45.6	43.4	53.2	.024*
16	I check to see whether I have achieved my learning objective.	42.9	43.0	43.2	.972
17	I know how I could do it better now.	46.5	47.5	44.6	.191
18	I organize the information that I have read in a table.	23.7	22.7	24.6	.191

¹Percentage of results obtained by adding the responses *Often* and *Almost Always*.

²Results obtained with the chi-square test.

* $p < .05$, ** $p < .01$.

the teacher's expectations, *I make sure I know what my teacher expects of me* (52.3%). The learning strategies reported as used less frequently relate to organization: *I organize the main ideas in a table or a diagram* (23.2%) and *I organize the information that I have read in a table* (23.7%).

As for the differences between the youngest and oldest students, we observed five strategies that favored the latter. These pertained primarily to the subject to be read such as *I consider the topic taught in class and its link with the text* ($p < .01$); and on the teacher's expectations, *I make sure I know what my teacher expects of me* ($p < .05$).

Studying for a Test

The activity *studying for a test* refers to the times when the students work in preparation for tests of various types: essay-type tests, multiple-choice tests, and so forth. Table 4 presents the results.

For the activity *studying for a test*, most students reported using learning strategies frequently. We observed the aspects of managing concentration such as *I choose study environments fostering my concentration* (63.5%); note-taking, *I take down the information I*

Table 4
Learning Strategies for the Activity of Studying for a Test

	Learning strategies	Percentage ¹	Comparison of the age groups ²		<i>p</i> value
			16–17	18–19	
1	I choose study environments fostering my concentration.	63.5	62.9	69.3	.169
2	I prevent any possible distractions (telephone, television, e-mail, etc.).	41.8	40.7	44.3	.458
3	I quickly focus on the task at hand.	55.1	55.0	58.2	.514
4	I take special care to review what I have not understood very well.	77.6	78.1	79.4	.738
5	I vary my activities (reading, writing, memorization, etc.).	45.6	45.0	48.2	.787
6	I ask someone to ask me questions in order to help me to learn.	35.9	35.6	39.0	.653
7	I try to imagine the questions that may come up on the test and I try to answer them.	46.5	46.7	48.9	.640
8	I organize the information I need to remember in a table.	25.2	23.6	29.1	.191
9	I take down the information I need to remember.	65.3	67.1	64.5	.571
10	I repeat several times the information I need to remember.	64.0	66.2	60.3	.204
11	I organize my class notes.	54.9	53.9	62.9	.066
12	I ask myself questions to determine whether I understood what I have studied.	57.2	54.9	67.1	.011**
13	I ask someone to ask me questions in order to check whether I have learned the material.	35.7	36.3	36.7	.881

¹Percentage of results obtained by adding the responses *Often* and *Almost Always*.

²Results obtained with the chi-square test.

** $p < .01$.

need to remember (65.3%); comprehension, *I revise what I have not understood well* (77.6%); and retention of information, *I repeat several times the information that I need to remember* (64.0%). The learning strategies reported as used less frequently relate to organization and requesting that someone ask questions to help the learning or revision process: *I organized the information I need to remember in a table* (25.2%) and, for example, *I ask someone to ask me questions in order to help me learn* (35.9%).

As for the differences between the youngest and oldest students, one learning strategy favored the latter. It is about the comprehension and retention of information: *I ask myself questions to determine whether I understood what I have studied* ($p < .01$).

Taking a Test

Taking a test is the activity that usually involves working alone in a specified location at a given time to answer questions or follow directions in order to demonstrate what one has learned. Table 5 presents the results.

For the activity *taking a test*, in which all the learning strategies were reported frequently by the students as being used often or almost always (from 68.4% to 84.9%), the learning strategies represent the aspects of reading and comprehension of questions and directions such as *I reread the questions at least once in order to make sure that I have understood them* (80.9%);

Table 5
Learning Strategies for the Activity of Taking a Test

	Percentage ¹	Comparison of the age groups ²		<i>p</i> value
		16–17	18–19	
1 I reread the questions at least once in order to make sure that I have understood them.	80.9	79.7	84.7	.389
2 I make sure that I have all the materials that I need on my desk.	83.6	83.7	87.6	.276
3 I take the time to understand the directions for each question.	84.0	86.6	85.4	.730
4 I clarify the objective (the goal) that I must achieve when preparing my answers.	69.6	69.6	73.0	.452
5 I try to figure out which answers the teacher expects and wants on the test.	68.4	68.9	74.5	.217
6 For each question, I check that I have followed the directions clearly.	76.3	77.0	79.7	.504
7 I adjust myself as time passes.	70.9	71.7	73.9	.615
8 I check my answers before handing in my paper.	71.9	74.0	77.5	.411
9 I take one question at a time and try to answer it correctly.	84.9	85.6	90.6	.134
10 When necessary, I perform the tasks in the order specified.	71.5	71.5	75.4	.374
11 I check that I have answered all the questions.	78.8	80.8	84.1	.394
12 I make sure that I have done what was asked.	80.3	82.3	83.3	.772
13 I check whether my solutions are consistent with the wording of the questions.	78.3	80.6	81.2	.880

¹Percentage of results obtained by adding the responses *Often* and *Almost Always*.

²Results obtained with the chi-square test.

the preparation of answers, for example, *I check my answers before handing in my paper* (71.9%); the preparation of needed materials, *I make sure that I have all the materials that I need on my desk* (83.6%); and time management, *I adjust myself as time passes* (71.5%).

No difference between the youngest students and the oldest students was observed for the testing situation.

Summary, Discussion, and Conclusion

This study was conducted with two objectives: (a) to identify the strategies of students in “second chance” schools for a variety of academic activities; and (b) to compare the strategies of students who had withdrawn from school after their mandatory attendance period (those aged 16-17) with those of students exceeding the age limit (those aged 18-19).

Generally, the results indicate that students who resume their studies in “second chance” schools display significant shortcomings in terms of their reported use of learning strategies. The analysis shows that for all five activities, half of the learning strategies (35/69) are reported by most of the participants as being used *often* or *almost always*. These results mirror the conclusions of other studies in which gaps in learning strategies were observed among weak, at-risk, and underprivileged students (Baldwin, 1993; Butler, 1998; Cartier, 2006; Cartier, & al., 2007; Fortier, 1995; Gersten & al., 2001; Goldman & Bradley, 1997; Langevin, 1998; Weinstein & Mayer, 1986; Zimmerman, 2000).

When looking at specific activities, an important finding is that most students report using learning strategies more frequently for activities related to evaluation than for those focusing on learning. In activities related to evaluation, they reported using all the learning strategies frequently (often or almost always) when taking a test (13/13) and for the activities of studying for a test (7/13) and completing projects (7/14), about half of the learning strategies were used with this frequency. These results suggest that because these students have resumed their secondary studies mainly to obtain a DES, they might focus more on the formally evaluated activities. They may adopt a strategic approach to learning as Entwisle (1988) has defined it, which focuses on results through the management of resources, effort, and the requirements of the evaluation system. Moreover, other research, including that of Cartier, Chouinard, and Butler (2008) on learning through reading in high school, has demonstrated the close link between evaluation practices and students’ learning strategies.

In activities that focus on learning, students say they are less likely to use many learning strategies frequently. For learning through reading, the proportion is markedly low (5/18). Their incomplete learning strategies, for example, *organize the main ideas in a table or a diagram* and *ask myself questions about what I clearly understand*, reveals how challenging learning through reading could be for some (Cartier, 2006; Stetson & Williams, 1992). Incidentally, it is in attending class (including lecture format and students answering questions in writing or doing exercises and individual study), the most common teaching approach in “second chance” schools, that the students report the lowest rates of the use of learning strategy (3/11).

From a reciprocal determinism perspective (i.e., with a focus on the triadic reciprocity between the environment, the student, and the behavior), these results display a variety of relationships between learning situations and the students’ perceptions of their learning strategies. On one hand, the relationship between the activities related to evaluation and students’ perception of their recourse to learning strategies seems consistent in that students mention using most cognitive and self-regulatory learning strategies often, which allows them to

engage in these activities. On the other hand, the relationship between the two activities that primarily stress learning (attending class and learning through reading) and students' perception of their use of these learning strategies is problematic. There seems to be a disjuncture here, which could be a predictor of great difficulties in learning that could, moreover, lead to poor performance in evaluation activities. In such a case, it would be important to reconsider the types of activities encouraged in such schools, principally the activities of attending class and learning through reading, that pose problems for students and adjust them to be more in tune with students' needs for learning strategies.

Another important finding is that unlike for the other activities, we discovered no difference between older and younger students in taking a test. For the other activities, all the differences favor the former, but in taking a test, the two groups seem to use the same learning strategies frequently. This result seems to indicate that these students place great importance on evaluated activities.

The activities in which the most differences between older and younger students were found were learning through reading (5/18) and projects (3/14), followed by attending class (3/11) and studying (1/13). The analysis suggests that the learning strategies used more often by the older students pertain to specific aspects of given activities: focus on process and learning (project), answering questions (studying), the topic and the teacher's expectations (learning through reading), and the objective (classes). Several explanations come to mind. One is the possibly stronger motivation of older students to succeed and obtain their diploma. At their age, the students who decide to resume their studies have probably made a personal decision to obtain a DES and move on to more advanced studies or get a desired job. This may translate into a more strategic commitment to their studies. The students aged 16-17 might rather attend a “second chance” school as the natural next step. Numerous similarities exist between the general learning strategies of “second chance” students and those of students coming from underprivileged neighborhoods, for example, for the learning through reading activity (Cartier et al., 2007).

Further research is needed to continue to understand how students perceive themselves as learners, how they learn in a “second chance” school, and why some will succeed and gain a DES whereas others will again withdraw from school. For example, from a reciprocal determinism perspective, the results call for triangulation of data, including proficiency when using learning strategies and student achievement in the “second chance” school to complete the study on students' perceptions of their learning strategies in various activities.

From a scientific and educational perspective, this research contributes an original perspective, because few studies have been conducted with such students (Fortier, 1995). The results highlight discrepancies in the use of learning strategies as a function of the activities in favor of those of evaluation. Differences between younger and older students (generally favoring the latter) are also explored. The results suggest that more specific research approaches and tailored pedagogy should be developed for diverse activities and both age categories. So our team prepared a pedagogical guide for teachers. This suggests activities and practices aimed at stimulating the use of diverse learning strategies for students in the classroom. It appears that a number of teachers have made use of it, but we do not yet know its effect on their work and on students' success.

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References

- Baldwin, J. (1993). *Education and welfare reform: The story of a second chance school. Fastback 355*. Bloomington, IN: Phi Delta Kappa Educational Foundation.
- Bandura, A. (1986). *L'apprentissage social* (translator J.A Rondal). Brussels: Mardaga.
- Bouchard, P., Saint-Amant, J.-C., & Côté, E. (1993). Les pratiques de rattachage et la réussite scolaire. *Bulletin du CRIRES*, 1(3), 1-8.
- Bourbeau, L. (1992). *Les populations de l'éducation des adultes en formation générale dans les commissions scolaires*. Ste-Foy, QC: Centrale de l'enseignement du Québec, Fédération des enseignantes et enseignants de commissions scolaires.
- Brown, J.S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- Bushnik, T., Barr-Telford, L., & Bussière, P. (2004). *À l'école secondaire ou non: Premiers résultats du deuxième cycle de l'Enquête auprès des jeunes en transition, 2002*. Document de recherche—Éducation, compétences et apprentissage. Ottawa: Human Resources and Skills Development Canada.
- Butler, D.L. (1998). The strategic content learning approach to promoting self-regulated learning: A summary of three studies. *Journal of Educational Psychology*, 90, 682-697.
- Cartier, S. C. (2000). Cadre conceptuel d'analyse de la situation d'apprentissage par la lecture et des difficultés éprouvées par les étudiants s. *Res academica*, 18(1 et 2), 91-104.
- Cartier, S. (2003). Lire pour apprendre. In N. Van Grunderbeeck, M. Théorêt, S. Cartier, & R. Chouinard (Eds.), *Étude longitudinale et transversale des conditions scolaires favorables au développement des habitudes et des compétences en lecture chez des élèves du secondaire* (pp. 36-70). Québec: FQRSC.
- Cartier, S.C. (2006). Stratégies d'apprentissage par la lecture rapportées par des élèves en difficulté d'apprentissage de première secondaire en classe de cheminement particulier de formation. *Revue des sciences de l'éducation*, 32(2), 439-460.
- Cartier, S.C., Butler, D.L., & Janosz, M. (2007). Autorégulation d'adolescents qui fréquentent une école en milieu défavorisé lorsqu'ils lisent pour apprendre. *Revue des sciences de l'éducation*, 33(3), 601-622.
- Cartier, S.C., Chouinard, R., & Butler, D.L. (2008, March). *The impact of evaluative approaches on high school students' learning through reading engagement*. Paper presented at the annual meeting of the American Educational Research Association, New York.
- Charest, D. (1997). *La situation des jeunes non diplômés de l'école secondaire*. Québec: Ministère de l'Éducation du Québec.
- Entwisle, N.J. (1988). Motivational factors in students' approaches to learning. In R.R. Schmeck (Ed.), *Learning strategies and learning styles* (pp. 21-51). New York: Plenum Press.
- Fortier, C. (1995). *Les méthodes pédagogiques et les stratégies d'apprentissage privilégiées par les rattachés de 15 à 21 ans*. Unpublished master's thesis, Université de Montréal.
- Gersten, R., Fuchs, L.S., Williams, J.P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, 71(2), 279-320.
- Goldman, J., & Bradley, G. (1997). The educational experiences of Australian high school dropouts who return to school. *International Journal of Lifelong Education*, 16(1), 18-38.

- Hadwin, A.F., Winne, P.H., Stockley, D.B., Nesbit, J.C., & Woszczyzna, C. (2001). Context moderate students' self-reports about how they study. *Journal of Educational Psychology, 93*, 477-487.
- Hrimech, M., Théorêt, M., Hardy J.Y., & Gariépy, W. (1993). *Étude sur l'abandon scolaire des jeunes décrocheurs du secondaire sur l'île de Montréal*. Montréal, QC: Conseil scolaire de l'île de Montréal.
- Langevin, L. (1998, avril). *Profil stratégique d'élèves du secondaire: Perspectives pour la réussite scolaire*. Quatrième Biennale internationale des chercheurs et des praticiens de l'éducation et de la formation, Paris.
- Langevin, L. (1999). *L'abandon scolaire: On ne naît pas décrocheur!* (2nd ed.). Montréal, QC: Editions Logiques.
- MacMillen, M., & Kaufman, P. (1994). *Dropout rates in the United States: 1994*. Washington, DC : National Center for Education Statistics.
- Ministère de l'Éducation, du Loisir et du Sport (MEQ). (2009). *Indicateur de l'éducation. Édition 2009*. Sainte-Foy, QC: Gouvernement du Québec.
- Pintrich, P.R., & Garcia, T. (1994). Self-regulated learning in college students: Knowledge, strategies, and motivation. In P.R. Pintrich, D.R. Brown, & C.E. Weinstein (Eds.), *Student motivation, cognition, and learning* (pp. 113-133). Hillsdale, NJ: Erlbaum.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale, NJ: Erlbaum.
- Royer, É., Moisan, S., Payeur, C., & Vincent, F. (1995). *L'ABC de la réussite scolaire*. Sainte-Foy, QC : Université Laval, CRIRES.
- Smith, S.L. (1982). Learning strategies of mature college learners. *Journal of Reading, 26*, 5-12.
- Stetson, E.G., & Williams, R.P. (1992). Learning from social studies textbooks: Why some students succeed and others fail. *Journal of Reading, 36*(1), 22-30.
- Théorêt, M., Cartier, S., & Chouinard, R. (2003, mai). *Relance de l'apprentissage: Un outil diagnostique et stratégique sur l'apprentissage universitaire*. Communication présentée dans le cadre du Congrès de l'Association internationale de pédagogie universitaire (AIPU), Sherbrooke.
- Vauras, M. (1991). *Text learning strategies in school-aged students*. Helsinki: Academia Scientarum Fennica.
- Viau, R., Cartier, S., & Debeurme, G. (1997). La motivation et les stratégies autorégulatrices: Le questionnaire. Dans L. Sauvé et al. (Eds.), *Troisième rapport trimestriel de progrès des activités de recherche du projet: Formation professionnelle sur l'inforoute*. Québec: Société pour l'apprentissage à vie.
- Weinstein, C.E., & Hume, L.M. (1998). *Study strategies for lifelong learning*. Washington, DC: American Psychological Association.
- Weinstein, C.E., Husman, J., & Dierking, D.R. (2000). Self-regulation interventions with a focus on learning strategies. In M. Boekaerts, P.R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 727-747). San Diego, CA: Academic Press.
- Weinstein, C.E., & Mayer, R.E. (1986). The teaching of learning strategy. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 315-327). New York: Macmillan.
- Weinstein, C.E., & Palmer, D.R. (1990). *Learning and study strategies inventory—High school version (LASSI-HS)*. Clearwater, FL: H & H Publishing.
- Weinstein, C.E., Palmer, D.R., & Shulte, A.C. (1987). *LASSI: Learning and study strategies inventory*. Clearwater, FL: H & H Publishing.
- Winne, P.H., & Perry, N.E. (2000). Measuring self-regulated learning. In P. Pintrich, M., Boekaerts, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 531-566). Orlando, FL: Academic Press.
- Zimmerman, B.J. (1994). Dimensions of academic self-regulation: a conceptual framework for education. In D.H. Schunk & B.J. Zimmerman (Eds.), *Self-regulation of learning and performance* (pp. 3-21). Hillsdale, NJ: Erlbaum.

- Zimmerman, B.J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts & P.R. Pintrich (Eds.). *Handbook of self-regulation* (pp. 13-39). New York: Academic Press.
- Zimmerman, B.J., & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal*, 23, 614–628.
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