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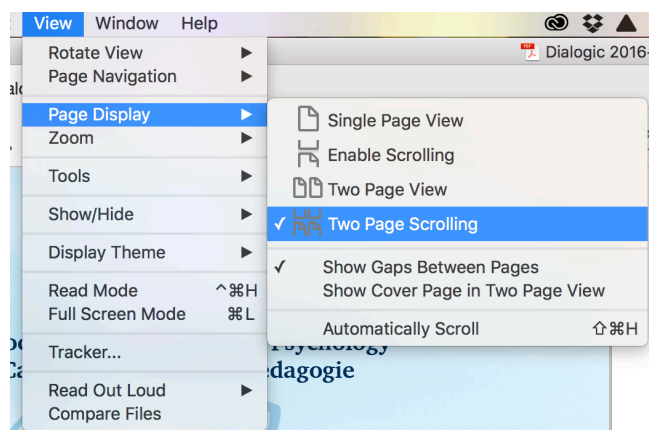


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Apprendre par la lecture : exemple d'apprentissage autorégulé dans des activités complexes

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Michel, enseignant de sciences au secondaire, a proposé aux élèves de réaliser un projet pour le développement de la compétence « se questionner sur des phénomènes naturels » (MELS, 2006). À travers ce projet, les élèves avaient à faire une recherche documentaire sur un des thèmes abordés (p. ex. les sciences spatiales), réaliser une entrevue auprès d'un scientifique du domaine, produire une affiche et l'animer lors de l'expo-sciences

de l'école. Les élèves ont vu l'intérêt à faire cette activité et son importance pour l'expo-sciences. Ils ont compris ce qu'ils avaient à faire (p. ex. trouver des références sur leur thème et cibler des questions pertinentes à poser au chercheur), ils se sont fixé des objectifs d'apprentissage et ont planifié le travail en conséquence. Ils ont réalisé les diverses tâches en vérifiant régulièrement si le travail avançait bien et s'ils atteignaient

les critères de performance de l'activité. Lors de l'expo-sciences, ils ont présenté leur affiche et ils étaient fiers de pouvoir expliquer leur démarche de recherche et le thème traité.

Cet exemple illustre ce que nous nommons Apprendre par la lecture (APL). L'APL est une activité complexe « et un processus par lesquels le lecteur-apprenant acquiert des connaissances par la lecture

de textes informatifs, et ce, en gérant cette situation et son environnement de travail, tout en étant motivé à le faire » (Cartier, 2006, p. 439). L'APL est ainsi un exemple d'apprentissage autorégulé à réaliser dans des activités complexes (Butler et Cartier, 2004; Cartier et Butler, 2004; Cartier et Butler, 2016).

Depuis 2003, une collaboration de recherche avec Deborah Butler (UBC) a permis de proposer une vision contemporaine de l'apprentissage autorégulé. Nous concevons : 1) qu'il s'agit d'un processus complexe, dynamique et contextualisé de pensées, d'actions et d'émotions, mobilisé par un individu dans une activité complexe en classe et 2) que ce processus d'apprentissage est intégré à un contexte social, historique et culturel donné et à ce que les personnes elles-mêmes apportent dans

cette situation. « Il s'agit d'une relation complexe et dynamique personne-contexte, dont les divers éléments du contexte et de l'individu sont mutuellement interdépendants et toujours présents » (Cartier et Butler, 2016, p. 42).

En ce sens, nos recherches sur l'APL ont permis de développer divers outils visant à documenter cette relation individu-contexte. Par exemple, le Questionnaire Apprendre Par la Lecture (QAPL)¹ (Cartier et Butler, 2003 version révisée 2016) évalue ce que l'élève pense, ressent et perçoit de son engagement dans une activité spécifique d'APL. Cette information peut être combinée à une analyse des traces laissées par l'élève dans les tâches et les textes et la performance obtenue pour avoir un portrait exhaustif de l'APL de l'élève. D'autres outils (p. ex. questionnaire sur les pratiques

des enseignants, Cartier, 2015 a, b, c) permettent d'analyser la qualité de la situation d'APL et du soutien offerts aux élèves (Cartier, 2007). Ces outils sont utilisés dans des recherches-actions collaboratives visant le développement professionnel de personnel scolaire (Cartier, Butler et Bouchard, 2010; Cartier, 2016).

¹ Le QAPL, d'autres outils et de nombreux exemples de pratiques développés à travers des recherches-actions collaboratives avec des commissions scolaires et des écoles du Québec sont disponibles gratuitement sur le site internet : Apprendreparlalecture.education.

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Transforming inclusion for students with developmental disabilities in secondary content area classrooms through self-regulated learning

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Canadians have a reputation for finding strength in and embracing diversity (Racher & Annis, 2007). However, this is not reflected in educational settings that still separate students by cognitive ability (Downing, 2008). As students with developmental disabilities move into secondary schools, it is even more unlikely that they will be included in content area classes with peers; as these students are typically taught in separate settings without access to content area specialists or conceptually-rich curricula (Milsom, 2006). When and if students with developmental disabilities are included, content area placements are rarely seen as creating learning opportunities with potential to benefit all students. In knowing that SRL is a bridge in

creating access to curriculum for students in general, is there a possibility that this framework could also be applied to students with developmental disabilities as well?

Although there isn't any regulation in Canada, in the United States, the Individuals with Disabilities and Education Act (IDEA) requires that curriculum be made accessible to students through alternate materials and assessments (Thomas & Loxley, 2007; Courtade & Browder, 2011). This, however, is still only aimed at teaching students with developmental disabilities in segregated settings (Hitchcock et al., 2002). Additionally, special education teachers are routinely absent from curriculum reform conversations and research (Blanton

et al., 2013, Pugach & ... programs offered in spe often do not embody re research related to curri such as SRL (Butler & S

There are also problem preventing students wit disabilities from learnin peers. Katims (2000) id students with developm conviction that these st of anything greater than [which may perpetuate functional approaches Without presuming cor developmental disabili

in content area classrooms, are not engaged in learning along peers in ways that might foster SRL. Instead, goals for students with developmental disabilities are often restricted to fostering social outcomes and functional work habits, and lack the goals and intentions that have the potential to connect students in a learning community.

Content area teachers struggle to accommodate wide-ranging diversity in classrooms, because many lack the specialized knowledge and skills needed to address students requiring additional support (Buell et al., 2010). Current one-size-fits-all planning and instruction result in “a hit or miss approach to modifying already existing materials” for diverse learners (Pugach & Warger, 2001, p. 66).

Research is needed to explore questions such as:

- (1) How can content area and special education teachers collaborate to include students with developmental disabilities as contributing members of their content area learning community?**
- (2) What is the nature of practices that content area and special education teachers construct together to span and address the cognitive diversity of students in their classrooms?**
- (3) How do the knowledge, attitudes and skills of content area and special education teachers shift when educators collaboratively address the diversity of students in their classrooms?**
- (4) What is the role of self- and co-regulated learning in supporting students to achieve their learning goals in these inclusive classes?**

Research in this area could uncover how special education and content area teachers collaborate to plan instruction that, from the onset, addresses all learners’ needs and fosters SRL in everyone (Salend & Duhaney, 1999; Rose & Meyer, 2000; Schnellert et al., 2008).

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 atic assumptions with developmental learning curricula with their identifies one related to mental disabilities as “the students are incapable in a functional existence [the preeminence of in our schools” (p. 145). competence, students with ies that are included

Autodétermination et réussite universitaire d'étudiants ayant un trouble d'attention ou d'apprentissage

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De plus en plus d'étudiants ayant un trouble d'attention ou d'apprentissage (TAA) accèdent maintenant à des études postsecondaires. Au Québec, en 2014-2015, 45 % de ceux fréquentant les bureaux d'aide destinés aux étudiants en situation de handicap des établissements universitaires québécois présentaient un de ces deux troubles (Association Québécoise Interuniversitaire des Conseillers aux Étudiants en Situation de Handicap, 2015).

Afin de soutenir la réussite des étudiants, incluant les étudiants TAA, les établissements postsecondaires ont, au fil des années, multiplié l'offre de services visant à soutenir la réussite de tous en plus de proposer un bureau d'aide destiné aux étudiants en situation de handicap et des mesures d'accommodement. Si plusieurs facteurs peuvent influencer la réussite au postsecondaire, le manque d'autodétermination est considéré, par de nombreux chercheurs, comme la principale barrière à la réussite au postsecondaire (Getzel, 2008; Trammell, 2003; Webb et al., 2008).

La présente étude visait à entamer la réflexion quant au soutien à offrir aux étudiants TAA en vue de favoriser leur réussite universitaire. Les résultats ont permis de démontrer que les étudiants TAA de cette étude (n=128) réussissaient à l'université (moyenne de 3,06) tout en démontrant une faible autodétermination (résultats

se situant dans la moyenne faible). La connaissance et la valorisation de soi étaient particulièrement peu développées par plus de 50 % des participants. Qui plus est, une relation significative a été démontrée entre la sous-échelle « agir » et la moyenne générale. Ce qui signifie que pour réussir, il faut mettre en place des actions, prendre des moyens afin d'atteindre un objectif fixé. De plus, les résultats ont montré que, couplé au fait d'avoir un TA et d'étudier en génie, le score d'autodétermination permettait d'expliquer une portion significative de la variance (12 %) de la moyenne générale. Ainsi, il existerait un lien entre l'autodétermination et la réussite, bien que d'autres facteurs font également une partie de l'équation.

Au regard de ces autres facteurs, le type de trouble et le domaine d'études se sont avérés significatifs au regard de la réussite scolaire. En effet, les étudiants ayant un trouble d'apprentissage dénotaient une moyenne significativement plus faible que les étudiants présentant un trouble d'attention. Les difficultés liées au trouble d'apprentissage (lecture, écriture) étant des habiletés sollicitées à cet ordre d'enseignement, il s'avère difficile pour les étudiants détenant ce diagnostic de compenser leurs difficultés. De plus, les programmes liés aux sciences humaines étaient mieux réussis que ceux au génie par les étudiants TAA. Fait intéressant à noter : aucune relation significative

n'a été relevée entre le fait de bénéficier d'accommodements, de fréquenter le bureau d'aide ou d'autres services à la vie étudiante de même que le nombre d'accommodements et la réussite scolaire ou le score d'autodétermination. Cependant, les étudiants TAA rencontrés ont indiqué que les accommodements obtenus étaient essentiels à leur réussite; soit qu'ils ont vu leur moyenne augmenter depuis qu'ils en bénéficiaient ou qu'ils diminuaient leur stress. Enfin, les étudiants TAA sondés ont indiqué que leur médication de même que le soutien social et familial étaient essentiels à leur réussite à cet ordre d'enseignement.

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Co-creating discursive spaces that integrate teacher & family knowledge around children's literacy development: SRL and CRL considerations

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When working with students from diverse families, educators may lack knowledge and skills when organizing and implementing family engagement practices that lead to successful outcomes in school learning (Epstein, 2011). Educational research connecting parental involvement and family literacy is noticeably sparse (Edwards, Pleasants, & Franklin, 1999; Cairney, 2002; Compton-Lilly & Greene, 2011). Henderson, Mapp, Johnson, Davies (2007) contend that educators and parents have many beliefs, attitudes, and fears about each other that hinder their coming together to promote children's education. Inherently within the literature, there are divisive opinions around such teacher-parent relationships, specifically around how educators and parents coexist on the margins and boundaries that divide school and home (Lawrence-Lightburn, 2003; Henderson, et al., 2007; Miller Marsh & Turner-Vorbeck, 2010; Kreider, et al., 2013). Practicing teachers receive little if any professional development in how to foster partnerships with the families

of their students (Lawrence-Lightfoot, 2003; Henderson, et al., 2007; Epstein, 2011; Pushor, 2013). Ontario's Parent Engagement Policy (2010) draws on substantial research suggesting that ultimately it is the practice of schools and teachers to involve families that makes the difference in whether or not—and which—families become involved, as well as how they become involved (p. 12).

Third space theory provides a framework to help describe and resolve the tensions when participants from two spaces, unequal in power, come together in an in-between space for the purpose of growing in new understanding, learning, generating new knowledge and discourse (Moje, et al. 2004). The contribution and integration of knowledge and discourses from home and school within a third space may boost teacher and parent efficacy, engagement opportunities, the level of trust in relationships, and the quality of co-regulated learning of family and educators (Moje, et al., 2004; González,

Moll, & Amanti, 2005; Pahl & Kelly, 2005; Gee, 2008; Schnellert, Butler & Higginson, 2008; Kreider, Caspe & Hiatt-Michael, 2013). Regulation of learning involves the complex interplay between individual and social processes as well as motivational processes of learning (Leveault, 2006; Butler, Schnellert & Cartier, 2013). Pushor (2013) describes building a curriculum of parents with parents through a pedagogy of listening that requires educators take up a side-by-side stance. This recognizes that both parents and teachers are holders of knowledge about children, teaching, and learning and that both have much to learn from one another. Inquiries co-developed by teachers with parents who are often “untapped sources of knowledge” could add an important piece to the puzzle of how to best serve children’s needs as literacy learners (Norton-Meier & Whitmore, 2013). Teachers can extend their professional competence by deliberately co-setting goals with parents and each other. By co-planning experiences that draw from home, school and communities’ knowledge and practices, teachers can collaboratively monitor their learning and practices. Ultimately, educators need to make adjustments based on changes in their practices, interactions with others and levels of growth within themselves and the students in their care (Butler, Schnellert & Cartier, 2013).

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Self-Regulated Learning By Teachers

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There are multiple perspectives on learning and the motivation for learning. Self-regulated learning (SRL) is one perspective. Garrison (1997) claims that SRL emerged from research on self-efficacy and motivation. Although there are various models of SRL, Pintrich (2004) states that the models share four general assumptions that include: (a) active participation in the learning process (b) regulating and monitoring motivation, cognition and behavior (c) monitoring progress towards goal achievement (d) SRL regulatory activities are mediators between personal and contextual characteristics and actual achievement or performance. Self-regulated learners manage their thoughts, emotions, social and contextual environments to achieve and influence their learning goals (Buzza & Allinotte, 2013; Cho & Heron, 2015). SRL presents an approach on how learners are motivated to assume personal responsibility and with others, control the context and the environment in which learning takes place. SRL is a characteristic of learners, including teachers who self-regulate their learning about teaching (Butler, et al. 2004). Educational reforms suggest that SRL plays an important role in the professional growth of teachers throughout their teaching career (Kramarski & Michalsky, 2009).

The literature on professional learning identifies teacher learning as a lifelong collaborative learning process. Lifelong learning encourages the growth of teachers as individuals and as team members improving their skills and abilities in order to provide meaningful learning experiences for students (Speck & Knipe, 2001). SRL offers another perspective on how teachers are motivated to assume personal responsibility, and with others control the context in which learning occurs. Professional development which arises from the teacher's initiative, is internally motivated, and sustained by his/her own learning is a form of self-regulated learning (Mushayikwa & Lubben, 2009). Slavit and McDuffie (2013) adds that teachers play a role in initiating, sustaining and providing stewardship of their professional development which can be done through SRL. In SRL, teacher as learners actively plan, organize, self-instruct, and self-evaluate at various points during the learning process to determine if goals are being met.

Perry, Phillips & Hutchinson (2006) credit self-regulated learning with success in school and beyond, as it is a highly effective approach to learning. Spruce and Bol (2015) claims that teachers' belief systems guide in their SRL activities which results in structuring and restructuring

their professional learning as they continue in their teaching careers as lifelong learners. SRL is important as teachers engage in learning to improve their classroom practices by applying new knowledge and utilizing new learning technologies that are available. Shannon (2000) states that SRL is important for lifelong progressive personal education in a changing society as it addresses the individual needs of teachers. Teachers who engage in SRL initiate and organize their own learning demonstrating a willingness to be engaged in the learning process to facilitate student engagement. The use of SRL encourages teachers to be brokers of their own learning (Cobb & Smith, 2008). SRL facilitates a learning model which can be used to understand how teachers address their thinking and motivation for learning, to effect change in their classrooms.

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Teachers' Support and Students' Self-regulated Learning in Classrooms

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As Dean of Studies in a Nigerian secondary school, I was concerned with my students' poor academic performance, especially in mathematics. I observed that students' engagement appeared to be related to their levels of performance. Consistent with past research, it seemed to me that teachers who were most effective in supporting students' learning and problem-solving processes used student-centered approaches, such as self-regulated learning (SRL; Butler, & Perry, 2013; Butler, Schnellert, & Cartier, 2013). Self-regulated learning describes independent and social forms of learning that involve students' ability to control thoughts and actions in order to achieve personal goals and respond to environmental stimuli (Zimmerman, 2008). SRL-promoting practices empower all students to understand themselves as learners and take control over their motivation and academic achievement.

Successful students are strategic learners who effectively regulate their learning by applying different strategies while solving problems (Butler & Winne, 1995; Perry & Rahim, 2011). Students can become self-regulated learners through instruction, experience, and practice (Paris & Paris, 2001). Knowing this, in my role as Dean of Studies, I became interested in the interaction between strategy instruction, self-regulated learning, problem solving, and academic performance.

As part of my thesis research, I worked with two math teachers. Together, we inquired on how to enact SRL strategies in their classrooms, based on Montague's (2003) cognitive strategy instruction model. This strategy consists of a seven step cognitive process: read, paraphrase, visualize, hypothesize, estimate, compute, and check. Each of these steps offers students the opportunities to engage in self-reflection/monitoring, self-questioning and self-instruction while solving word-problem mathematics. In the first two weeks, the two mathematics teachers modeled how to solve word problems using Montague's (2003) strategy. The teachers then followed up by weaving the strategies into their regular mathematics teaching, since SRL strategies and development are most effective when integrated into regular classroom teaching (Lin, 2001; Schneider, 2008). During mathematics classroom teaching, the teachers supported the learners by scaffolding students' strategy use and providing feedback in different contexts, such as whole class, small groups and one-on-one sessions according to the needs of the individual learner. As learners mastered the strategy, the teachers gradually withdrew support in order to shift the responsibility and ownership of the strategy use to the students.

In this way, the students' engagement was fostered, and opportunities were created for them to practise and experiment with the strategies in their personal studies.

The major finding from this study is that students exposed to SRL strategies achieved better (13.22) than students not exposed to the strategies (4.97), $F(1, 126) = 28.97, p < .001$. This finding, therefore, suggests that learners can be supported to better self-regulate their learning if they are exposed to SRL strategies (modeling), and provided with guided support (scaffolding) and opportunities to practice the strategies. This support not only increased the students' engagement in the learning process, but also improved their academic performance.

The participating mathematics teachers also reported benefits of the program. They felt supported in their teaching and were also able to generate some classroom practices from research-based resources in response to their diverse students' needs. They reported being excited about their abilities to equip their students with numerous strategies for problem solving not only in school but also in real-life situations. Overall, this study showed that students' SRL, academic engagement, and performances could be improved when teachers are supported to enact and integrate SRL strategies in their practices.

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Apprendre par la lecture en 3^e année du primaire dans une école en milieu défavorisé

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Apprendre par la lecture est essentiel pour la réussite scolaire des élèves pendant toute leur scolarité, et ce, dès l'entrée au primaire (Cartier, 2007). L'apprentissage par la lecture (APL) est une situation dans laquelle l'élève apprend par la lecture de textes écrits, pouvant comprendre des images, tableaux, graphiques et figures. Il s'agit par ailleurs d'un processus qui repose sur l'apprentissage autorégulé (Cartier, 2007). Lorsque l'on demande aux élèves québécois de 4^e année du primaire d'apprendre par la lecture, plusieurs éprouvent de la difficulté à le faire (Labrecque, Chuy, Brochu et Houme, 2012). Par exemple, seuls 19% d'entre eux réussissent à organiser dans un tableau l'information lue, une stratégie reconnue utile dans plusieurs cas pour apprendre par la lecture. De plus, en général, les élèves provenant d'écoles en milieu défavorisé sont nombreux à avoir de la difficulté à apprendre par la lecture (Labrecque et coll., 2012). Comment peut-on expliquer ces résultats à l'école primaire ?

Différents facteurs relatifs au contexte historique, culturel, communautaire et scolaire en interrelation avec les facteurs de l'élève peuvent expliquer la difficulté à apprendre par la lecture (Cartier et Butler, 2016). Du côté du contexte scolaire par exemple, le Programme de formation à l'école québécoise du primaire (MÉLS, 2006) n'introduit formellement l'APL qu'en 3^e année. Avant ce moment, les tâches de lecture proposées aux élèves sont principalement celles de questionner les élèves lors de lecture de textes narratifs afin de valider leur compréhension. Cette tâche de compréhension est très différente de l'activité d'APL qui demande de lire des textes informatifs et de traiter l'information pour réaliser une activité complexe (p.ex. une affiche expliquant l'adaptation de divers mammifères dans leur habitat naturel). Or, les enseignants semblent peu soutenir les élèves pour ajuster leur façon de faire aux exigences de l'APL (Cartier, 2007). Le passage de la tâche de compréhension d'un texte narratif à la réalisation d'une activité d'APL fondée sur des textes informatifs sans réel soutien de la part des enseignants peut expliquer certaines difficultés vécues par les élèves du primaire.

Quant aux facteurs reliés à l'élève, le bagage qu'il apporte avec lui dans le contexte (sa langue d'origine, ses connaissances antérieures, ses forces et ses défis etc.) peut aussi influencer sur les difficultés d'APL (Cartier, 2007). En effet, dans le présent exemple d'introduction à l'APL sans soutien réel en 3^e année du primaire, il est fort probable, entre autres, que les élèves n'aient pas acquis les connaissances nécessaires sur les exigences des activités et sur divers genres de textes pour réaliser avec succès une telle activité (Cartier, 2007; Labrecque et coll., 2012).

Ce constat de difficulté et de besoin de soutien à l'APL a été fait par des enseignants d'une école primaire de Montréal en milieu défavorisé. Ils ont développé, au fil des ans, une approche novatrice qu'ils ont ajustée et évaluée lors d'une recherche-action collaborative (Cartier, Butler et Bouchard, 2010). Les résultats obtenus auprès des élèves de 5^e et 6^e année ont été positifs. Une étude en cours vise à décrire le processus d'APL des élèves d'une classe de 3^e année dans cette approche et à explorer la présence de divers portraits d'APL chez ces élèves. Les résultats de l'étude sont importants, puisqu'ils permettront de mieux comprendre comment ces élèves s'engagent dans une situation d'APL réalisée dans le cadre d'une approche novatrice d'enseignement (Cartier, 2007).

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Viewing Media Multitasking from a Self-Regulated Learning Perspective

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In today's world, digital media technologies permeate all aspects of our society, including our daily lives, the workforce and, of course, education. Students often use media technologies for purposes of learning and entertainment, both inside and outside of the classroom, which can lead to decreased learning and lower grades (e.g. Kay & Lauricella, 2011; Kraushaar & Novak, 2010; Wood, Zivcakova, Gentile, Archer, Depasquale, & Nosko, 2012). Students' high levels of multitasking in the classroom have created a raging debate, with one side arguing that any multitasking is distracting and, therefore, should not be permitted during lectures. On the other side, high levels of student use of media technologies have prompted educators to try to incorporate that technology into curriculum design, such as using Twitter® as a discussion forum for class purposes. Research shows that when students use media or technology to supplement their learning, they tend to process information more deeply and often receive higher grades (e.g. Barak, Lipson, & Lerman, 2006; Gaudreau, Miranda, Gareau, 2014; Lowerison, Sclater, Schmid, & Abrami, 2006). There is merit to both sides of the debate.

How effectively students are self-regulating may impact how media multitasking in the classroom affects their learning. Existing research shows that only those students who can self-regulate effectively in multimedia environments are able to acquire a deep, conceptual understanding of the learning material (e.g. Winne & Hadwin, 2008; Zimmerman, 2000). However, other studies have shown that many students are not self-regulating sufficiently to optimize their learning in these environments (Pressley & Harris, 2006; Schunk & Zimmerman, 2006).

It appears that very little research on students' use of their own media technologies, and subsequent media multitasking, identifies this issue from a self-regulated learning perspective. Earlier research conducted by the first author examined the impact of off-task use of social media (e.g., MSN®, Facebook®, email, texting) on students' in-class learning. The results of this research indicated that, while decreases in student learning occurred, not all types of media multitasking had an equally detrimental effect. In addition, both the type and the amount of multitasking were important factors in determining student performance (Wood et al., 2012). To determine what role self-regulation plays in media multitasking, the authors' current research extends previous research by comparing how task-relevant and task-irrelevant media multitasking impact student learning.

Zohar and Dori (2012) identified the need for teaching metacognitive skills (which are a key component of self-regulation) as a main implication of extant research in the teaching and learning of science. This statement, however, might be applicable to all post-secondary education. With trends toward large classes and online learning, where students are largely left to their own devices, post-secondary students' ability to self-regulate is key to their academic success. Research that helps us better understand the role of self-regulation in using and, especially, multitasking with digital technologies, can aid in determining how educational technology initiatives and institutional policies can be effective in improving student success.

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Entrée au secondaire d'élèves ayant des difficultés d'apprentissage : contexte et interventions pédagogiques des enseignants qui favorisent leur apprentissage par la lecture

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La réussite scolaire de tous les élèves est un objectif poursuivi par le MÉLS (2006). Une situation d'apprentissage s'avère importante pour favoriser cette réussite à tous les niveaux : l'apprentissage par la lecture (APL). L'APL se présente comme étant « une situation et un processus d'apprentissage qui impliquent que l'apprenant acquiert des connaissances sur un sujet par la lecture de texte » (Cartier, 2007, p. 10). Pour ce faire, les élèves ont à mobiliser un ensemble de pensées et d'actions visant à autoréguler leurs stratégies cognitives, leurs émotions et leur motivation afin de se construire de nouvelles connaissances en lisant des textes (Cartier, 2007). En classe ordinaire, l'APL est important dans différents domaines d'apprentissage, notamment l'univers social (MÉLS, 2006). Au Québec, l'entrée au secondaire s'effectue vers l'âge de 12 ans (MÉLS, 2009). À ce moment, l'élève fait face à des changements importants sur le plan organisationnel, social et académique (Desbiens et Vandebosche-Makombo, 2013). Les défis sont grands pour tous à l'entrée au secondaire. En effet, les recherches montrent que les résultats scolaires

(Akos et coll., 2015), la motivation (Friedel et coll., 2010) et les émotions des élèves (De Wit et coll., 2011) sont affectés négativement à cette étape. Dans le cas des élèves ayant des difficultés d'apprentissage (DA), ceux qui présentent un retard significatif sur le plan des apprentissages scolaires (Legendre 2005), ils sont plus à risque d'avoir des perceptions négatives du secondaire (Maras et coll., 2006). De plus, ces élèves sont plus susceptibles que les autres d'avoir de la difficulté à apprendre par la lecture. Cela peut se manifester de diverses façons : par exemple, relier faiblement les nouveaux apprentissages avec leurs connaissances antérieures (Fisher et coll., 2012), interpréter de manière incomplète ou erronée les exigences de l'activité (Butler et Cartier, 2004) et mettre en œuvre inadéquatement des stratégies cognitives et des stratégies d'autorégulation de l'apprentissage (Bosson, 2010). Or, les interventions pédagogiques des enseignants ne semblent pas viser ces aspects (Cartier et coll., 2012). En effet, des recherches montrent qu'ils tendent à proposer des activités peu complexes aux élèves, qu'ils interviennent peu

explicitement sur l'APL (Cartier et coll., 2012; Cartier, et coll., 2010) et « qu'ils guident peu les élèves dans les tâches de lecture qu'ils proposent » (Martel et coll., 2015, p.2). En se référant à un modèle d'apprentissage autorégulé dans des activités complexes, contextualisé à l'APL (Cartier et Butler, 2016), les objectifs de notre étude visent : 1) à décrire les éléments du contexte qui favorisent l'entrée au secondaire de l'élève ayant des DA et la perception que ce dernier a de ce contexte, et 2) à décrire les interventions pédagogiques des enseignants qui favorisent l'APL des élèves ayant des DA à l'entrée au secondaire. Les résultats permettront de mieux comprendre comment les élèves ayant des DA entrent au secondaire et comment les enseignants interviennent pour les soutenir à ce moment, notamment lors de l'APL.

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Connecting the dots between 21st century learning, pedagogy and valued outcomes for learners

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SRL contributions to teaching and learning theory and practice

Decades of SRL research (e.g., Bandura, 1977; Butler & Winne, 1995; Butler & Cartier, 2004; Harris, Graham, & Mason, 2003; Perry, 2004; Schunk & Zimmerman, 1998; Zimmerman, 2008, 2011) have helped educators to rethink their approaches to teaching and learning. From this rich base of research, practitioners have developed and taken up approaches to foster learners' metacognition so that students have more awareness of, and control over their learning. As a result, approaches such as the gradual release of responsibility, student self-assessment and goal setting, co-creating criteria, and offering choice are employed in classrooms to build learners' self-efficacy and agency (Butler, Schnellert, & Perry, 2013). Thanks to SRL research, these examples of transactional pedagogy are understood to be more effective than transmission-oriented approaches to teaching, so what is the next frontier for SRL research?

Our current context: 21st Century

Learning. Dumont, Istance et al. (2012) suggest that the ultimate goal of learning and associated teaching is for students to acquire adaptive expertise—the ability to apply meaningfully learned knowledge and skills flexibly and creatively in different situations. This view challenges notions of when, where, and how learning happens. The teacher is recast as a facilitator, while students are encouraged to be their own teachers, designing and self-directing their learning.

Educational thinkers (e.g., Hargreaves, 2003; Noddings, 2013) agree that students should become life-long learners with refined competencies of critical thinking, creative thinking, communication, and personal and social responsibility “especially as they prepare for jobs that do not yet exist, to use technologies that have not yet been invented, and solve problems not yet recognized as problems” (Dumont, Istance, & Benavides, 2012, p.8). Canadian researchers such as Wilms, Freisen, and Milton (2009) call for pedagogy that promotes deep learning

and active knowledge construction. SRL holds the potential to support and extend leading edge understandings and pedagogy that are transformational, inquiry-oriented, and significantly more learner driven and derived.

SRL research and practice can help transform education

Practitioners and educational jurisdictions are leading the way by (re)designing learning environments that focus on the abilities of citizens in the 21st century. SRL research is needed to help the field understand when and how environments and learning opportunities foster students' ability to self-regulate their learning as part of ongoing, relevant explorations. SRL researchers can help contribute to policy and practice by connecting the dots between pedagogy where constructive self-regulated learning is fostered and students' development of competencies such as critical and creative thinking and personal and social responsibility. For example, research is needed to illustrate when and how SRL-promoting practices can be applied within building blocks for innovative learning (i.e., cooperative learning, service learning, learning with technology, formative assessment, inquiry-based approaches, Dumont et al., 2012) to achieve valued outcomes for 21st century learners. Butler, Cartier, and I (2013) have found four important ways to infuse SRL into innovative pedagogical approaches: (1) support SRL as a means to an end, not a separate curriculum; (2) focus on students' explicit attention on thinking and learning processes within tasks; (3) engage students in cycles of strategic action that require them to set goals, make plans, enact those plan, assess progress, and adapt plans and actions; and (4) foster student independence by providing control over the level of challenge within cycles of strategic action. This time of societal and educational change can offer transformative learning opportunities for students by empowering them as authors of and inquirers into their own learning.

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Apprendre par la lecture au 21e siècle à partir de l'interprétation des exigences de l'activité

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Pendant toute la scolarité, il est demandé à l'élève de faire preuve d'apprentissage autorégulé, dans des activités complexes, c'est-à-dire de « Pensées, émotions et actions personnelles planifiées et adaptées de manière cyclique pour atteindre des buts personnels » (Zimmerman, 2000, p. 14, traduction de Cartier, Butler et Janosz, 2007, p.602).

Une activité complexe dans laquelle l'élève apprend de manière autorégulée est l'apprentissage par la lecture (APL). Ce texte réfère au modèle d'apprentissage autorégulé dans des activités complexes de Cartier et Butler, 2016) contextualisé à l'APL (Cartier, 2007). L'APL est « (...) un processus et une situation d'apprentissage dans lequel le lecteur-apprenant vise à maîtriser un sujet par la lecture de textes, et ce, en gérant à la fois son environnement de travail et la réalisation de la tâche, et tout en étant motivé pour le faire » (Cartier 2006a, p. 40). Cette activité se situe dans un certain contexte social, historique, communautaire et scolaire (Cartier et Butler, 2016). Avec l'essor médiatique, la communication se transforme et la lecture du 21^e siècle inclut de multiples modes (visuels, gestuels, auditif, kinesthésique). Les pratiques pédagogiques des enseignants en APL convoquent souvent plusieurs modes de présentation des éléments d'informations.

Pour apprendre par la lecture, l'élève doit gérer plusieurs pensées, actions et émotions (Cartier et Butler, 2016). Pour y parvenir, il doit interpréter ce qui lui est demandé de faire, de lire et d'apprendre, ainsi que reconnaître et traiter les informations qui peuvent avoir différentes formes (image, texte, etc.) pour acquérir des connaissances.

Or, de nombreux élèves de secondaire éprouvent des difficultés en APL. Selon l'OCDE (2012), seuls 58 % des élèves de 15 ans ont le niveau de lecture leur permettant d'apprendre en lisant (niveau 3). Entre autres, ils n'utilisent pas de bonnes stratégies ou

le font inefficacement (Cartier, 2006b). Plusieurs facteurs peuvent expliquer ces difficultés, dont une interprétation inadéquate ou incomplète des exigences de l'activité (Jamieson-Noël, 2004). Ce problème est sérieux, car il peut mal orienter l'APL des élèves (Butler et Cartier, 2004), influencer leurs performances et leur persévérance scolaire (Oshige, 2009). D'autres facteurs d'influence de ce problème sont liés aux pratiques pédagogiques des enseignants (Broekkamp, van Hout-Wolters, Rijlaarsdam et van den Bergh, 2002)

Il importe alors de comprendre comment des élèves de secondaire apprennent par la lecture à partir de leur interprétation des exigences de l'activité dans un contexte où les pratiques pédagogiques de l'enseignant convoquent de la multimodalité.

Lors d'une activité d'APL, les élèves interprètent les exigences de l'activité à partir de leurs connaissances métacognitives et expériences de ce type d'activité (sa structure, ses objectifs, ses composantes) (Butler et Cartier, 2004). Des études montrent que les élèves consultent principalement les informations textuelles pour l'APL et que les enseignants ont souvent des conceptions monomodales du travail scolaire centrées sur l'écrit (Martel et Boutin, 2015). Pourtant, certaines disciplines, dont les sciences requièrent la lecture de graphiques, schémas, etc.

Puisque certains élèves peinent en APL en raison d'une interprétation partielle ou erronée des exigences de l'activité, une étude à venir vise à décrire l'APL d'élèves de secondaire en science à partir de leur interprétation des exigences de l'activité, décrire les pratiques pédagogiques de l'enseignant de secondaire en science qui convoquent de la multimodalité et les mettre en relation.

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Technology Tools for Supporting and Assessing Learning within the Context of Clinical Reasoning

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According to the seminal report *Knowing What Students Know* (Pellegrino, 2002), educators and researchers need to work together to design instruction around curricula that will lead to deeper learning. As instructional goals change, we also must change the way learning is assessed. Formative assessments should be based on cognitive, metacognitive, and affective theories of learning (Laveault, 2014). Considering these issues, I design technology rich learning environments (TRE) that provide authentic, meaningful learning experiences that support both cognitive and metacognitive skills while taking learner affect (both positive and negative emotions) into consideration. In parallel, I create innovative assessments using technology (Lajoie, 2014).

BioWorld is a TRE designed to support medical students as they develop clinical reasoning skills by solving virtual patient cases (Lajoie, 2009). Students solve medical cases using the cognitive and metacognitive tools created for promoting diagnostic reasoning. Learners begin to understand by performing activities that simulate authentic practice. The cognitive tools in BioWorld support higher order processing about diagnostic reasoning by supporting hypothesis generation as students solve cases. Medical students learn to diagnose a patient's disease by formulating hypotheses, collecting and reflecting on patient observations, and testing their assumptions by ordering diagnostic tests. Students use patient observations and test results as evidence to support their hypotheses. Self-regulated learning (SRL) and reflection on these actions are scaffolded during the learning process. The students reflect on their problem solving by interacting with the patient and confirming and disconfirming their hypotheses, collecting and evaluating the evidence they collect from patients, and

evaluating their performance by comparing their solutions to that of an expert. BioWorld assesses student learning dynamically in terms of their accuracy as well as their efficiency in solving patient cases and scaffolds learners by providing assistance that externalizes how experts solve the cases as a model for new learners to reflect on to become more proficient. Affective measures of learners are taken before, during, and after using BioWorld and include self-report questions about confidence and achievement emotions, as well as physiological (measures of heart rate and skin conductance) and behavioural data (e.g., smiling, frowning) (Jarrell, et al., 2015).

Students that perform well using BioWorld may also perform well in SRL. BioWorld helps learners focus on what they know and do not know by making their thinking visible by visualizing others' problem-solving processes. In essence, BioWorld provides the environmental conditions that influence learners to regulate certain aspects of problems solving. These conditions can be considered a form of extrinsic regulation (Gross & Thompson, 2007). BioWorld supports the students SRL by helping them reflect on their own knowledge processes as they transform their knowledge in the context of diagnostic reasoning. In this regard the external conditions support the intrinsic regulation of problem solving (Winne & Hadwin, 2008). Students' emotional responses to BioWorld were largely positive. However, we found students who were performance-oriented tended to be angry when their feedback did not confirm their hypotheses. In summary, aligning instruction by using theories and research about cognitive, metacognitive, and affective processes when designing instruction and assessing learning can lead to greater evidence of what learners know and understand.

Furthermore, this type of alignment can lead to instructional changes that scaffold learners more appropriately. Technology may serve as a platform for testing these formative assessments.

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Accompagnement pédagogique d'enseignants par des conseillers pédagogiques: perspective d'étude

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L'accompagnement pédagogique des enseignants par des conseillers pédagogiques (CP) est reconnu comme jouant un rôle important dans les conditions scolaires favorisant la réussite scolaire des élèves (CSÉ, 2006). Or, au Québec, seulement 27 % des enseignants reçoivent un accompagnement pédagogique par les CP (CSÉ, 2006). Plusieurs facteurs d'influence peuvent contribuer à expliquer ce problème (CSÉ, 2014). Parmi ceux-ci, se trouvent les caractéristiques du CP lui-même et du contexte de l'école. Ces deux facteurs permettent de mieux comprendre la relation individu-contexte, relation reconnue fondamentale dans les modèles contemporains explicatifs de l'apprentissage autorégulé dans des activités complexes (Cartier et Butler, 2016). En ce sens, l'accompagnement pédagogique est ici perçu comme une activité complexe où les caractéristiques personnelles du CP et son processus d'accompagnement sont en constante interaction avec les caractéristiques du contexte de l'école accompagnée.

Une façon de mieux comprendre comment aborder cette préoccupation consiste à étudier l'accompagnement d'enseignants par des CP dans des contextes authentiques, soit des relations CP-contextes. Ainsi, les questions qui se posent sont : *quel est l'accompagnement offert par le CP? Comment se situe l'interrelation entre l'accompagnement du CP, ses caractéristiques personnelles et celles du contexte de l'école?*

Pour répondre à ces questions, diverses perspectives mettent de l'avant les buts visés par l'accompagnement. Un premier exemple d'accompagnement possible est celui qui met l'accent sur l'acquisition de connaissances à travers l'interaction entre les participants. Dans ce cas, l'accompagnement pédagogique des enseignants est conçu comme une construction commune de connaissances

entre le CP et les enseignants (p. ex. : Lafortune et Martin, 2004). Un autre exemple d'accompagnement est celui qui met l'accent sur les pratiques de l'enseignant. Ici, le rôle de l'accompagnateur est surtout de soutenir le transfert des connaissances dans la pratique (p. ex. : Knight, 2009). Enfin, un dernier exemple vise l'amélioration de la pratique d'enseignement à travers la réflexion. Dans ce cas, le rôle de l'accompagnateur est de soutenir cette réflexion (p. ex. : Boucenna, 2012). Dans toutes ces perspectives d'accompagnement, les caractéristiques personnelles du CP et celles du contexte de l'école ne sont pas prises en compte.

Un cadre conceptuel de l'accompagnement pédagogique prenant en compte ces deux facteurs est alors proposé. Cette proposition repose sur divers travaux sur l'apprentissage autorégulé dans des activités complexes (p. ex. : Butler, Schnellert et MacNeil, 2015; Cartier et Butler, 2016) et sur l'accompagnement pédagogique des enseignants (p. ex. : Atteberry et Bryk, 2011). Les composantes du cadre conceptuel sont : a) le processus d'accompagnement pédagogique qui est constitué de cinq phases : 1) identification des buts d'accompagnement, 2) planification des pratiques d'accompagnement, 3) mise en œuvre des pratiques d'accompagnement, 4) contrôle du progrès et des résultats et 5) ajustement des buts et stratégies d'accompagnement ; b) sept caractéristiques du CP dont ses croyances, ses connaissances et ses perceptions et c) sept caractéristiques du contexte de l'école, dont la culture de l'école et le type de leadership exercé par la direction. Ce cadre de référence permet d'analyser le processus d'accompagnement du CP en lien à la fois avec ses caractéristiques personnelles et celles du contexte de l'école et ainsi comprendre la dynamique existante.

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Using a Self-Regulation Framework to Design a Mobile App that Improves Study Skills

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The transition from high school to college can be difficult for first year students, particularly those who have misaligned academic expectations. In a study by Kuh (2007), it was found that fifty percent of senior high school students were only studying 3 hours or less a week, when 13 to 14 hours a week is expected of higher education learners. The same study found that first year undergraduates studied 2 to 6 hours less than they expected they would.

Studying is a learning task that is assumed to be mastered by the time students enrol in higher education institutions. Even though research has demonstrated that study tactics and strategies can lead to better academic outcomes, these skills are usually not taught in school, leaving students unprepared for standard higher education learning. This paper suggests a mobile application (app) for supporting the development of self-regulated learning (SRL) skills during studying tasks to help students become aware of their actual time spent studying, with tips on how to implement different study techniques, as well as when to use them. Such a tool is needed for students to track which tactics were used at different times, and to help learners determine which study behaviours work best for themselves.

Currently no study skill apps exist in which students are guided to self-regulate their study habits, and additionally, no apps support learning theories on how to facilitate deeper learning through study tactics. A framework

such as Winne & Hadwin's SRL framework (Winne, 1995; Winne & Hadwin, 1998, 2008) can be used to design an app to improve university students' self-regulated learning and study skills in the context of actual higher education courses. This framework focuses specifically on the cognitive processes that occur during learning, and has four phases of self-regulated learning during study: task definition, goal setting and planning, studying tactics, and adaptations to metacognition (1998).

There are also no existing apps that outline the many different study tactics a student can use. We can address the gap between high school and higher education study behaviour by helping students choose learning strategies that are adapted to the nature of the learning task, and support achievement by promoting effective study behaviours (e.g., spaced studying). A study skill app is a supplementary tool to services offered by the university or in-classroom instruction by facilitating self-regulated learning, which can be supported by various app features, namely: setting goals that are realistic and calibrated to the course objectives, monitoring time on study tasks and progress toward the course and study goals, and the usefulness of learning strategies employed during studying.

Why focus on an app as the vehicle for supporting student learning and self-regulation during study tasks? Many first year students are enrolled in large lecture courses where

individualized learning supports are difficult to come by. Even in smaller courses, students might not have the training on how to learn through their study processes. An app offers immediate accessibility and a platform with which students are already comfortable. And while many universities do offer study skill workshops, this tool would act as a personalized, integrated supplementary support that is available whenever a student should need it, and is fully immersed into daily life, as opposed to an isolated workshop event in which information is easily forgotten.

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