Self-Directed Learning in an International Baccalaureate High School Class

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ABSTRACT

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Self-directed learning is an adult-education concept that suggests that a learner should maintain control over all aspects of a learning activity. In an effort to examine self-directed learning in a high school environment, this study utilized document analyses and direct observation to evaluate the dimensions of learner control (conative, algorithmic, semiotic, and economic) in a secondary five International Baccalaureate classroom. Following an observation of approximately five weeks and a thorough analysis of readily available documents pertaining to the International Baccalaureate programme, the degree of learner control in each of the four dimensions was discussed. Although the degree of learner control varied depending on many aspects, the principal finding of this study is related to the concept of classroom energy. The energy of the classroom and the way teachers responded to this energy was found to greatly influence the degree of learner control of the students. This implies that teachers need to be aware of this energy and work with what students bring to the classroom to allow for the highest amount of learner control in all the dimensions.

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Introduction

Self-directed learning (SDL) is increasingly becoming a key component of the credo of many schools, training programs, and educational institutions. Adults are being seduced back into formal education settings with the promise that their learning will be self-directed, therefore more beneficial to their individual needs and aspirations (Chovanec, 1998). The allure of SDL is in the independent yet cooperative nature of the concept (Long in Long & Ass., 1996, p. 9). In the best of its implementations, SDL allows for students to control what, when, and how to learn any given topic, while still acknowledging the need for outside help or guidance (Long in Long & Ass., 1996, p. 9). This help can come in different forms, for example: the environment, the teacher, and peers.

SDL can be defined as either a process or an objective in learning opportunities, meaning that students may either adopt SDL as a learning style, or be guided towards achieving self-directedness in their learning (Chovanec, 1998). In either form, the belief is that when applying SDL, students are more motivated and achieve better results. According to Long (1990), self-directed learning can be visualized as the interaction of two variables of control: psychological and pedagogical control (Tremblay, in Confessore & Confessore, 1992.) The former is related to learning style, whereas the latter is related to SDL as a process. SDL can also be further separated into four dimensions of learner control: conative, algorithmic, semiotic, or economic (Bouchard, 2009). When a learner has control over all of these dimensions, he/she is considered to be fully self-directed. These dimensions will be discussed in more depth in the following sections of this thesis.

The concept of SDL has been widely appropriated by the field of adult education, producing little research on the possibility of SDL before adulthood. Paradoxically, in the mostly

teacher-centered classrooms of the western formal education system, school-aged children are expected to be curious and critical, in an environment that is rigidly structured to produce uniformity in talents and interests. There is no reason not to believe –that just like adults, children and teenagers have vastly varying interests and talents that do not necessarily fit into the predetermined curriculum of the education system. Therefore, I believe SDL needs to be studied in school-aged children in order to contribute to the knowledge and perhaps assist in improving the policies regarding the education of youth.

The need for this kind of research is evident in several ways. First, there is an unreasonably elevated high school drop-out rate in Quebec, which is above 10% (Government of Canada, 2014). Among many factors that contribute to this statistic, one has been identified as the lack of interest students have towards the official curriculum. In the age of neoliberal policies and world views, the education system tends toward a curriculum that is so standardized and impersonal, that the relevance and meaningfulness of the subjects are often lost (Smyth & McInerney, 2012). Through this curriculum, students are also led to believe that competitiveness and successes are the only things that matter, when in fact collaboration and improvement are at the core of any successful personal, professional, or even societal endeavour (Lavoie, 2007). Therefore, SDL can be used counter neoliberal policies, but it should be noted that it can also be used to further them. This can be done by omitting components of critical pedagogy (which will be discussed in the theoretical framework section), that I feel are necessary when facilitating learners in a compulsory education setting.

For these and other reasons, this thesis will set out to discuss how an International Baccalaureate (IB) high school classroom can be conducive to SDL, based on the four dimensions of learner control (Bouchard, 2009). As mentioned above, the standard curriculum of

the Quebec Education Program (QEP) (MELS, 2013) is far from the ideal SDL curriculum; this is due to its rigidity in allowable pedagogical practices, and the lack of alternative assessment tools and procedures (this refers to the required standardized tests in many grade levels). Therefore, I will instead do a case study on a classroom of an International Baccalaureate Middle Years Programme (IBMYP), which is structured around some guiding principles of SDL: personal interest, self-management, and self-evaluation in learning (IBMYP, 2014). The specific IBMYP classroom that I will be observing is a secondary 5 English class within an English high school on the island of Montreal. I will seek to identify and explain how elements of this environment potentially make it conducive to SDL, or not.

In discussing the various facets and dimensions of SDL, some theoretical background will be covered. Although primarily based on educational theory, this study on SDL will also borrow some concepts from psychology and sociology. It is necessary to examine SDL from these different perspectives in order to understand the contextual and interpersonal nature of a high school classroom.

This thesis contains a total of 7 sections following this introduction. First, I will establish the theoretical framework that will be used throughout this study. Second, the literature review will discuss the theories and theorists that will be used to analyze the data. Third, biases and limitations will be discussed. Fourth, the methodology of my data collection will be described. Fifth, the findings of my study will be exposed. Sixth, an analysis of my findings will be shared. And, finally, I will submit some concluding remarks.

Theoretical Framework

The theoretical framework of this thesis will involve theories originating from three different fields. Theories of education, sociology, and psychology will be discussed due to their

relation to the concept of SDL. Some may argue the validity of including education as a distinct field due to the fact that many educational theories and policies come from psychiatrists, psychologists, or sociologists; but I believe it is important to develop educational theory to highlight the unique implications of the field.

Before delving into this section, I want to specify my interpretation of the *self* in SDL. For the purposes of this study, the self is concerned with the learner and his/her perceived motives and needs. Whether it is socially-constructed or not, the self in SDL represents learner-centered concerns.

Education

Three early theorists of education will inform the framework for SDL to be discussed in this thesis. These three theorists are Jean-Jacques Rousseau, John Dewey, and Alexander S. Neill. Together, they make the foundation for what I believe are the essential building blocks of an environment conducive to self-directed learning.

Jean-Jacques Rousseau (1712-1778). Before discussing Rousseau's philosophy of education, it is important to note a popular criticism of his work. His work on education (Rousseau, 1762:1979) has been criticised for being overly sexist, in favor of more freedom for boys (Thomas, 1991). He advocated for the domestication of girls by stating that girls were meant to stay home to learn tasks such as sewing, while boys were meant to be outdoors and exploring (Thomas, 1991). I definitely do not share this sexist perspective, and I am a firm proponent of gender equity in all aspects of life. Therefore, for the purposes of this thesis, I would like to apply the principles of Rousseau's philosophy of education for boys to all genders.

Rousseau's philosophy of education involves letting children discover, mostly on their own. The only setting he saw fit for such discovery to take place was in the countryside, in

nature. “Cities are the abyss of the human species. (...) Send your children, then, to renew themselves, as it were and to regain in the midst of the fields the vigour that is lost in the unhealthy air of the overpopulated places” (Rousseau, 1762:1979, p. 59). He believed that children had to learn in the classroom that is available to us all at birth: the outdoors. Being able to frolic in a field, trip on a rock, dig a hole, observe wildlife, and appreciate the beauty of nature were all important lessons for a child. Although these were all lessons developed by him, the child was the ultimate teacher because he/she decided what lesson he/she wanted to do. He maintained that children could only really learn what they wanted to learn. Learning in a forceful manner only transmits an aversion for the process of learning itself (Rousseau, 1762: 1979).

In addition to promoting discovery learning, he was also able to criticize certain teacher-centered views on child-rearing. “The wisest men concentrate on what it is important for men to know without considering what children are in a condition to learn. They are always seeking the man in the child without thinking of what he is before being a man” (Rousseau, 1762: 1979, p. 34). In this quote, Rousseau is simply saying that teachers need to stop looking at what we expect children to know, and instead look at what children are able and willing to learn. He believed that a child that is reasoned with his entire life lacks the ability to reason for himself, therefore is considered stupid (Rousseau, 1762: 1979). He basically suggests that a child needs to experience reasoning and active learning in order to be able to reason and to learn. “There is only one man who gets his own way – he who can get it single-handed. Therefore freedom, and not power, is the greatest good. This is my fundamental maxim …and all the rules of education spring from it (Rousseau, 1762: 1979, p. 48).

The contributions that Rousseau makes to my conception of SDL can be summed up in the importance of active discovery learning, guided by curiosity. Rousseau simply argued that discovery learning is not only educational, but is fun and challenging as well. Through following their own interests and motivations, children are compelled to find a solution to a problem they perceive as worth solving. The child would instinctively use trial and error, or refer to the guidance of a facilitator to solve the problem. The active component of discovery learning refers to the importance of having the children participate in the learning process rather than passively receiving information. This is important because it means that learners are engaged and participating in the material, therefore having a positive outlook on the process of learning, instead of being discouraged by memorization and teacher-centered curricula.

John Dewey (1859-1952). Dewey was able to take some the ideas of Rousseau and make them relevant to a classroom setting. He addressed SDL by highlighting the importance of social interactions and that of creating an environment that encourages self-direction in the classroom. Dewey believed that social participation in and outside the classroom is the basis of a meaningful education (Dewey, 1897: 1929). He insisted that students need to learn how to function cooperatively as early as possible in order to facilitate their eventual integration into a democratic society. Self-direction is an important aspect Dewey talks about almost explicitly. He mentions that “the child's own instincts and powers furnish the material and give the starting-point for all education” (Dewey, 1897:1929, p. 291). This implies that whatever motivates the student to problem-solve or work with peers is something worth focusing on in the classroom. If there is a meaningful reason for the child to learn, then the child will succeed in his/her learning endeavour. Nevertheless, Dewey also valued the teacher in the process of education. Although

education should be primarily student-centered, he believed that there should be a balance between content-instruction, and student-centered instruction (Dewey, 1906: 2007).

Dewey also purported that school should not be a place where the conventions of the curriculum and society should be taken for granted. In fact, he advocated for school as the starting point for social reform. Encouraging students to think critically about issues in their environment is a key component of his thoughts on education (Dewey, 1897: 1929; 1906: 2007).

Dewey's ideas play a big role in my understanding of SDL. I believe that if we raise a child without emphasizing social interactions, team-work, critical thinking, and self-direction, then the child will grow up to be unable to operate in the kind of society we hope for future generations. A child needs to do what he feels is relevant in order to be motivated and to learn important skills needed for lifelong learning and fulfilling employment. In the end, Dewey promotes the transfer of positive social values through critical pedagogy, active learning, and peer interactions, just like I would in my ideal SDL environment.

Alexander S. Neill (1883-1973). Neill is known globally for the school that he started in England called Summerhill. For me, this environment contains all the key elements of SDL that should be included in a curriculum. From a perspective of someone who knows little about education, the school could seem like a crazy place where children run amuck. In reality, this is somewhat true, but the long-term benefits outweigh the disadvantages. At Summerhill, children get to choose their daily schedule according to their mood or interest. If a child feels like playing in the garden all day, then that is what he/she will do, if a child feels like going to a lesson, then that's where he/she will go. The child does what he/she feels like doing in order to be more motivated and passionate about the work or play being done (Neill, 1960). "Where the joy of doing something disappears, the children of Summerhill leave it alone" (Snitzer, 1964, p. 5).

Adults are present at the school in order to give lessons when asked, facilitate play, and mediate discussion; they are not there to reprimand, give orders, or dictate curriculum. Children and teens of all ages are encouraged to mingle together as to create relationships based on role-modeling and mentoring.

The work of Neill (1960) contributes to my conception of SDL through many of its components. The first is Negotiation; because adults are there only to mediate and not reprimand, the children of Summerhill are forced to, as a community, decide on rules and consequences for disobedience. This forces the students to participate in negotiation and in argument to prove their points, which is an important skill to have in an ideal democratic society. The next component is the responsibility one has for one's own learning. Personal goals (emotional, cognitive, or creative) are at the essence of every learning process. Another component is Neill (1960)'s strategy behind the reduction of problem behaviour. The use of meetings, peer role-modeling, and negotiation all play a big role in promoting good behaviour. If there is a child that is told not to do something because it is simply against the rules, versus a child that is told not to do something because it was voted by his peers in his presence, the social and moral weight of the latter is bound to create a deeper understanding of the purpose of certain rules. Free-play is another component of Neill's that is essential to my understanding of SDL. I think that a child needs to be free to play/discover but given the appropriate support, materials, and environment to do so, like at Summerhill. The last component I want to mention is the active listening strategies of the school. This basically means that teachers listen to what the children are saying and actively participate in solving and helping whatever the issue may be. At Summerhill, the teachers teach and facilitate according to the needs and interests of the child. This demonstrates active listening at its finest because an understanding and a development of the child's original

idea is brought forth by the teacher. Role models need to constantly show empathy and interest in the child through active listening in order to promote self-direction in learning and self-confidence.

Connection with SDL. According to many scholars, the forefathers of SDL are people like Cyril Houle or Allen Tough that wrote extensively on the topic as a new concept. In my opinion, these three aforementioned theorists are the real forefathers of SDL. Combining the strong ideas of discovery and freedom from Rousseau, cooperation and socialization from Dewey, and self-management and democracy from Neill, make for an environment that is conducive to the SDL that will be discussed in this thesis. Freedom is an important concept in our democratic society, so it should be just as important in our learning institutions.

The freedom to learn is not sufficient. I believe that the freedom of what to learn and how to learn it should be considered when advocating for compulsory education as a building block of a true democracy.

Sociological Implications of SDL

When looking at the theoretical framework of this thesis, there is one theory in particular that demonstrates my sociological conceptualization of SDL: Critical pedagogy. This theory represents the power one has to counter the status quo of social injustice reproduced in (and by) formal education institutions (Freire, 1970a). Integrating the concept of SDL as a tool for critical pedagogy can benefit students in their learning, and in promoting grassroots social movements. In relating SDL to critical pedagogy, I believe we can produce a society that is more just, cooperative, and inclined to properly valuing the uniqueness of its members.

Critical Pedagogy. This theory derives from the broader concept of Critical theory. Critical theory has contributions from writers such as Kohl, Apple, Freire, Gramsci, Foucault,

and many more. This perspective explores the need for an overhaul of the social mechanisms that are currently in place that perpetuate inequality and oppression, especially for those in lower socio-economic standing (Horkheimer, 1931). A mechanism that critical pedagogy is meant to counter is structural functionalism. Mainly developed by Durkheim (1933), and Davis and Moore (1945), this theory is one that purports social stability and the co-dependence of the different components/institutions of a society. Although there is an interdependence aspect that is inherent in the way the structural functionalist perspective views society, the inequality that surfaces in such a view is quite alarming. Structural functionalism is based on capitalism, where profits, continued lucrative employment, and consumption are the basis of a well-functioning society (Wotherspoon, 2013). Inequality becomes an issue because talents and interests that are not the most lucrative are repressed and devalued. Successful students are streamed towards high paying jobs, while those who are not successful in absorbing the official knowledge needed to function in a preset role are ostracized, and deemed unimportant to the functioning of society as a whole. Critical theory aims to dismantle these inequalities by advocating for the emancipation of those being oppressed.

In terms of its relevance to education, a combination of critical and educational theories led to the development of Critical Pedagogy. Critical pedagogy was written about extensively by Paulo Freire (1970a, 1970b, 1973, 1975, 1976). Freire (1970a) criticizes the current model of education, which he calls the banking model, where students are filled with official knowledge coming from the supposedly omniscient voice of a teacher. He suggested that, in order for populations to be empowered to change the inequalities perpetuated by the current social order, the oppressed would have to participate in what he called praxis, which is a combination of reflection and practice. With the guidance of a teacher that brings awareness (*conscientization*) of a social issue and promotes discussion, self-direction, cohesion, and taking action, the emancipation of those at the lower echelon of the social hierarchy is possible (Freire, 1970a).

In the real world, practices of critical pedagogy often involve a teacher that brings awareness of a local injustice that affects the class, for example: the re-zoning of a park for commercial purposes. The class would then discuss the issue and decide upon what action to take as a group, for example: starting a petition, sending letters, and going to visit representatives. In less socially and economically privileged regions, the same kind of process might happen for a social issue concerning unequal distribution of wealth, sexism, racism, or other kinds of oppression. With these examples, the relevance to SDL is made quite evident. The subject of the learning activity is dictated by the concerns of the learners, and the content of the activity is guided and facilitated by the teacher. In combining critical pedagogy and SDL, a smart/creative teacher could make a learning activity meaningful for all, while still integrating (yet being critical of) knowledge required by a given curriculum.

Critical pedagogy relates to SDL in its capacity to encourage self-direction among school-aged students. Students are not forced to address any specific issue or take specific action. Instead, there is a process of conscientization that occurs, followed by a discussion where students can share opinions on the issue, and propose potential solutions.

Psychological Factors

In the last field that will be examined as part of this theoretical framework, there are two contributions that will be discussed. The first is the concept of cognitive development by Jean Piaget, and the second is the idea of sociocognitive development by Lev Vygotsky.

Cognitive development. According to Piaget (1954), people learn in four different stages. The sensorimotor, preoperational, concrete operations, and formal operations stages. These stages follow one another in that particular order, and one cannot achieve the following stage without demonstrating capabilities in all previous stages. In brief, sensorimotor involves

working with all of one's senses, preoperational involves using language and symbols to express oneself, concrete operations involves completing concrete tasks, and formal operations involve abstract thinking. In order for one to go to the next stage, there has to be a disequilibrium with the knowledge one has and the knowledge one is being exposed to. In response to this disequilibrium, the student may choose to assimilate, accommodate, or avoid the new information. Assimilation involves making connections with previous knowledge and simply adding new complexities to old concepts, accommodation involves adding new knowledge or thoroughly changing previous knowledge, and avoidance involves ignoring or dismissing new information.

In their textbook, O'Donnell, D'Amico, Schmid, Reeve, and Smith (2007) propose 3 different strategies for teachers based on Piaget's theory that also have important implications for the SDL that will be discussed in this research. It is to be noted that not all children develop at the same rate or achieve the various stages at the same time. With that in mind, the first strategy is to be sensitive to individual differences among students. A good way to do so is to encourage small group activities where students can work with peers that are at a similar point in their developmental stage. Another proposed strategy is to motivate students by stimulating curiosity. The basis for this strategy is that students often come to school and realize that their knowledge is insufficient and quickly live through disequilibrium. In order for new knowledge to be assimilated or accommodated, children need to be curious enough not to avoid it. Ways that teachers can stimulate curiosity are through feedback, suspense (making students work/think to get to the answer), or controversial discussions. The final strategy is promoting discovery-based learning. Piaget believed that "the mind is not a passive receptacle" (O'Donnell et al, 2007, p.

50) and it needs to be stimulated with a learning environment that is varied in tools, media, stimulations, and objects of interest. In sum, curiosity is the key to acquiring new knowledge.

Sociocognitive Development. This theory, by Lev Vygostky, emphasises the importance of peers and educators in the cognitive development of a student. Two of his concepts are primarily important to the SDL that will be discussed in this research: Scaffolding and the Zone of Proximal Development (ZPD). Although these concepts will be explained separately, it is to be noted that they are evidently most effective when considered as inseparable.

The ZPD of students is characterised by providing students with a problem or activity that is just above their current level of problem-solving, but that can be accomplished with some help from a "skilled member of the culture" (O'Donnell et al, 2007, p. 52), which is the teacher in a classroom context, or with the help of peers. The ZPD sits in between two other zones: predevelopment and the zone of actual development. Predevelopment consists of tasks that students would not be able to accomplish even with help or guidance, and the zone of actual development is where students would be able to accomplish a task with no help at all (O'Donnell et al, 2007, p. 53). The ZPD is then "particularly important because it is the critical zone in which cognitive development grows" (O'Donnell et al, 2007, p. 53). With that in mind, the ZPD is completely useless unless it is paired with effective scaffolding.

Scaffolding "is the social guidance, support, and assistance a teacher provides to students so that they can gain skill and understanding" (O'Donnell et al, 2007, p. 54). Just as the name suggests, scaffolding is necessary to support the growth of a student by surrounding him/her with the appropriate tools or information to complete the task at hand. Scaffolding does not imply teacher-directed guidance, on the contrary, it suggests being available for students only when necessary. "Scaffolding is the teacher's effort to support the student's learning in the zone of

proximal development by providing what the student needs most but cannot yet provide for him- or herself- namely, expert planning, strategies, skills, and knowledge" (O'Donnell et al, 2007, p. 54).

Connection with SDL. How these theories relate to my understanding of SDL is quite straightforward. With regards to cognitive theory, curiosity is the key to acquiring knowledge. In my understanding of SDL, curiosity is also a key component to learning new things in a meaningful way. One can learn things for the purpose of writing a test and probably get a good score, but in order for the learning to be relevant and meaningful for the student, there needs to be a degree of curiosity involved. This curiosity can be fostered by the strategies suggested above in this section. These strategies are therefore in accordance with an environment that would be conducive to SDL.

With regards to the ZPD and scaffolding concepts brought forth by Vygotsky, these highlight the role of a teacher in promoting an environment conducive to SDL. Teachers should provide activities and opportunities for students to use existing knowledge, complimented by additional knowledge that would be available through the use of learning tools, various media devices, the teacher, or the student's peers. It is important to leave room for development, without discouraging the student with difficult tasks, or boring him/her with unchallenging tasks.

By combining the cognitive and sociocognitive theories described above, a teacher can truly create an environment conducive to the SDL that will be discussed in this research.

Literature Review

The contributions of many scholars and theorists need to be discussed in order to understand the current practices and conceptualizations of SDL. SDL, as an adult education concept, was not really discussed until after the Second World War, when a wave of men came

home in search of learning new skills and knowledge to apply to a new career (Sheppard, 2002). For that reason, much of the research on SDL is focused on adult-learning. In this literature review, I will discuss the aspects of the research that may have been originally destined for adult-learning purposes, but that I feel can also be applied to high school students.

The first serious academic exploration of SDL was done by Cyril Houle (1961), followed by his student, Allen Tough (1978). Along with Knowles (1975), Houle and Tough described SDL as primarily a process. Grow (1991) and Guglielmino (1978) proposed that SDL is more a personality than a process, and Spear and Mocker (1984) discussed the important role of the learning environment in SDL. Furhtermore, Caffarella and O'Donnell (1987), Brockett and Hiemstra (1991), Brookfield (1981, 1985, 1986), and Candy (1991) explored and critiqued SDL as a combination of process, personality, and environment. And, Finally, Long (1982, 1990) and Bouchard (2009; 2010; 2011a; 2011b; 2014) explore the use of multiple learner dimensions in defining SDL. This section will discuss all above mentioned contributions, followed by how my methodology was influenced by the evolution of the conceptualization of SDL.

SDL as Process

Cyril Houle was a professor at the University of Chicago when he wrote his influential book, *The Inquiring Mind,* in 1961. This book was created as the culmination of a series of lectures that were presented to a diverse and multidisciplinary audience (Candy, in Confessore & Confessore, 1992). Considering his background in adult education, and realizing that his lectures needed to be relatable to people with many different interests, he decided to discuss the different elements involved in adults that "retain alert and inquiring minds throughout the years of their maturity" (Houle, 1961, p. xii, as cited in Candy, in Confessore & Confessore, 1992, p. 24).

To prepare for his lectures and his subsequent book, Houle (1961) conducted an unprecedented study where 22 subjects were interviewed on their views and opinions about continuing education. The research was unprecedented because it involved such a small number of participants, and because of the qualitative nature of the data that was collected. Although this type of research would be shrugged off by most academics, especially in the natural sciences, I would consider this to be actually ground-breaking methodology in educational research (Candy, in Confessore & Confessore, 1992, p. 25). The value of small sample sizes and qualitative data in education is demonstrated in the highly subjective and adaptable nature of education and educational research itself.

The outcome of his research, lectures, and book is a typology of reasons for participating in adult education activities by which he explains the self-educational efforts of adult learners. Houle (1961) was able to specify three different motives for someone to participate in a learning activity: some people are goal-oriented, some are learning-oriented, and some are activity-oriented. Goal-oriented learners are participating in a learning activity with a clear objective in mind; those who are learning-oriented are interested in acquiring knowledge for the simple purpose of being more knowledgeable; and activity-oriented learners are learners that are interested in learning because of the environment, peers, or other reason that is not related to the purpose of the learning activity itself. Houle (1961) recognized that learners are not necessarily one of these types of learners, but rather a mix of the three. He argued that we are all motivated by these three motivations, but each to a varying degree. One learner can be somewhat learning- and activity-oriented, but mainly goal-oriented, whereas another could be somewhat learning- and goal-oriented, but mainly activity-oriented. The reasons one decides to learn are therefore

explained as a combination of factors that range from purely social participation, to financial preoccupation (Candy, in Confessore & Confessore, 1992).

The implications of Houle (1961)'s work for educators and further research have been narrowed down to three ideas. The first is that a learner can have any combination of the three motivations he discussed, and that these motivations can change at any time throughout the learning process. Therefore, educators need to be

> flexible and responsive: responsive in the sense that they must respond to the learners' motives and interests and, unlike bats, not simply listen to the echo of their own intentions in putting on the program; and flexible because learners can and do shift their intentions as a programme unfolds and develops. (Candy, in Confessore & Confessore, 1992, p. 29)

The second conclusion that was reached is that teachers were seldom identified as motivators for students to learn. This is significant because teachers are often viewed as the center of all encouragement and discouragement of learning, but there are other social and environmental factors that play a larger role. Therefore, According to Houle (1961)'s research, the role of a teacher in promoting self-directed learning is much more concerned with setting up a positive social climate due to the significant influence of peers, than trying to motivate students with direct instruction (Candy, in Confessore & Confessore, 1992, p. 29-30).

The third and final finding is what was discovered as the main opponent to continuing learning. According to the interviews that were conducted, the opinion of friends and family members played a large role in the negative perceptions of continuing education in adult learners. This was an important finding and contribution at the time that this research was published, but the significance today is questionable due to the progressively more positive attitudes towards continuing education (Candy, in Confessore & Confessore, 1992, p. 30).

Although Houle (1961) never made explicit reference to SDL, he was the first to start developing the concept by exploring terms such as "self-education" and "auto-didactics" (Candy, in Confessore & Confessore, 1992, p. 31). By describing self-education as a fluid variance between three motivations that must be accommodated by a facilitator, according to Houle (1961), SDL is clearly process. It is a process in the sense that self-directedness is a learning style that a motivated student utilizes to participate in a learning activity. With regards to SDL in a high school environment, the implication here is that students don't need to be taught to be self-directed, but rather that teachers need to encourage the self-directedness that students already possess.

The conceptualization of SDL as a process has been utilized and discussed by many theorists and academics since Houle (1961). One of Houle's students, Allen Tough, also discussed SDL as a process, but went deeper into the dynamics of how and why one participates in a self-directed learning activity.

Allen Tough was a professor at the Ontario Institute for Studies in Education where he focused his research on adult self-directed learning. He started his academic career with a dissertation that he wrote for Houle about SDL, and then continued to write about his interpretation of the concept in many of his influential articles that followed. The ideas of Tough will be discussed are from the three influential Tough articles (1978, 1979, 1981) that are reviewed in Confessore and Confessore (1992). For the purposes of this literature review, the findings of all three articles will be discussed in that order, followed by a synthesis of his contributions.

Tough (1978) found that adults learn for many reasons but that most were actually goal-oriented, in the way it was described by Houle (1961). In fact, he barely considered the other

motivations that Houle had mentioned in his previous research. Although, in the same article, Tough states that the main reasons adults participate in learning activities are for personal development and self-fulfilment. This contradiction was not discussed, but it should be noted that, although he states goal-oriented learning as the leading motivation for learning, he does not seem to believe it himself.

A learning activity, according to Tough (1978) consisted of "a highly deliberate effort to gain and retain certain definite knowledge and skill, or to change in some other way" (Tough, 1978, p. 250, as cited in Bonham, in Confessore and Confessore, 1992, p. 49). For the purpose of his study, he suggested that a legitimate learning activity should be at least seven hours, although the average was approximately 100 hours, and he found that 90% of adults conduct at least one learning project per year. SDL was not mentioned specifically, but he found that 73% of all learning activities that adults participate in are self-planned, rather than planned by a teacher (10%) or by a peer group (7%). The reason for the overwhelming majority of self-planned activities was due to a desire to "learn at their own pace, in their own style, in flexible ways, and according to their own structure" (Bonham, in Confessore & Confessore, 1992, p.50). It is to be noted that Tough is also well-recognized for his SDL interview questions. The questionnaire consisted of specific questions that were meant to find out exactly what Tough wanted to know about the planning process of a learning activity, based on the interviewee's previous learning experiences (Tough, 1971).

The implications of Tough (1978)'s work for trainers, teachers, and facilitators is quite similar to what was discussed by Houle (1961): "the need to offer support to individuals to facilitate their self-planned learning" (Bonham, in Confessore & Confessore, 1992, p.53). This

support can be through offering tools and strategies for efficient self-planning, and promoting an environment where students can learn from one another.

Tough (1979) continues the work off his article published in 1978, but, "in addition, [his new book] provides a systematic, research-supported description on key resources, strategies, processes, and people interactions that support self-planned learning efforts" (Kasworm, in Confessore & Confessore, 1992, p. 55). In this book, Tough (1979) goes deeper into why adults pursue self-planned learning. Goal-oriented learning is not sufficient to describe the motives, so he names 6 possible reasons for being involved in learning projects: Intention of using knowledge and skill, imparting the knowledge and skill, future understanding of learning, pleasure and self-esteem, learning for credentials, and immediate benefits (satisfying curiosity, enjoyment of the content itself, learning successfully, etc.) (Kasworm, in Confessore and Confessore, 1992, p. 62). Tough (1979) also describes the origin of different types of support that self-planners can use in planning and executing learning activities: the learning himself/herself, use of an object/technology, use of a person who interacts with the learner, and involvement in a group (Kasworm, in Confessore and Confessore, 1992, p. 65). Therefore, although it is self-planning that is being discussed, the involvement of outside resources is elementary to a successful learning activity.

In the last article to be discussed (Tough, 1981), Tough makes clear list of twelve teaching tasks that self-teaching learners often go through. In order: decide about suitable place for learning, consider or obtain money for the project, decide when to learn and how long a period, choose the learning goal, obtain or reach people, books, or other resources, deal with any lack of desire to finish the project, deal with any dislike of necessary activities, deal with doubts about success, estimate level of knowledge and skill, deal with difficulty in understanding some

parts of the project, and decide whether to continue after reaching a goal (O'Donnell, in Confessore & Confessore, 1992, p. 77-78). Tough (1981) also goes on to describe the type of people that were found to be most useful supports (intimates, librarians, fellow learners, experts, etc.). Again, the process nature of SDL is highlighted in his work.

It is obvious in all the work by Tough that he views SDL as a process, or learner trait, that needs to be supported and understood by teachers and learners alike. The implication for older high school students and teachers is that teachers need to open support systems to allow learners to explore their interests and plan their own learning, instead of teachers trying to plan the learning for their students. This is quite interesting because high school teachers are required to plan all their learning activities, in detail, years, months, and sometimes a year ahead time. Tough would argue that this does not leave a lot of room for self-planning, which in turn eliminates a lot of motivation for learning.

Malcolm Knowles is the last important contributor to SDL that will be discussed that is a proponent of the process model, like Houle and Tough. The first major distinction between Tough and Knowles, as highlighted by Long (Long, in Confessore & Confessore, 1992, p. 38), is that Tough mainly focused on the individual learner's experiences, whereas Knowles focused on learning in a group setting, such as a classroom, where the teacher plays and important role. According Knowles, the teacher does indeed play an important role, but it is interesting to note that the teacher can be pretty much anybody. In fact, a teacher is technically anyone who is willing to help the learner in reaching his/her learning objective (Long, in Confessore & Confessore, 1992). This "helper" remains a helper for as long as the learning activity remains self-directed, as opposed to teacher-directed. If the learning activity becomes too teacher-

directed, then the learning is less meaningful, and the learner quickly looses interest (Long, in Confessore & Confessore, 1992).

Knowles (1975) refers to SDL as a necessity for survival. He believes that humans are inherently self-directed in their learning because they have to be in order to survive in this world. Those who are most successful are better self-directed learners. Even when a learning environment is not entirely conducive to SDL, a learner who is self-directed is much more successful in acquiring and applying knowledge.

> If self-directed learners recognize that there are occasions on which they will need to be taught, they will enter into those taught-learning situations in a searching, probing frame of mind and will exploit them as resources for learning without losing their self-directedness. (Knowles, 1975, p. 21)

In order for someone to be self-directed, according to Knowles (1975), there are 8 competencies that need to be possessed at differing degrees. Long (in Confessore & Confessore, 1992, p. 41) organized these competencies in three categories: cognitive, personal, and inter-personal. Again, it is understood that these competencies do need to be acquired, but the degree to which each person excels in a different category is extremely variable. Knowles (1975) believes that we are all born with these skills, but that formal schooling, and certain types of parenting, repress our self-directedness in learning.

The role of the teacher, or “helper”, is therefore to encourage students to be aware of their own innate ability to be self-directed in learning. In essence, in a suggestion that goes right to the edge of the process model and almost dips into the personality model of SDL, Knowles (1975) advises that teachers need to be ready to teach students to be comfortable with allowing themselves to be self-directed.

SDL as Personality

After Houle, Tough, and Knowles more or less defined SDL as a process, the idea of SDL as a personality trait started to gain popularity. Referring to SDL as a personality consists of fostering SDL as a learner characteristic rather than a pedagogical process. This point of view encourages the assessment of the degree to which a person is a self-directed learner, rather than the process model that guides a learner through self-direction in learning (Chovanec, 1998). To discuss this perspective on SDL, this subsection with explore the work of Lucy Guglielmino (1978) and Gerald Grow (1991).

Guglielmino (1978) created a SDL rating scale that she called the Self-Directed Learning Readiness Scale (SDLRS). This was developed in order to assess the degree to which a person is self-directed in their learning. In order to develop this tool, she gathered the leading experts in SDL at the time (including Houle, Tough, and Knowles) and started by asking them what they thought were the characteristics of a person that is self-directed. After creating eight essential characteristics (or factors), she then used a self-assessment questionnaire where over 300 participants indicated the degree to which they agree with statements that relate to those factors. (Guglielmino, 1978). Those factors are:

1. Openness to to learning opportunities.
2. Self-Concept as an effective learner.
3. Initiative and independence in learning.
4. Informed acceptance of responsibility for one's own learning.
5. Love of learning.
6. Creativity.
7. Positive orientation to the future.
8. Ability to use basic study skills and problem-solving skills. (Guglielmino, 1978, pp. 62-69)

Some examples of the statements that appeared on the questionnaire concerning the "Self-Concept as an effective learner" factor are:

39. I can make myself do what I think I should.
20. I know when I need to learn more about something.
3. If there is something I really want to learn, I can figure out a way to learn it.
29. I have a lot of curiosity about things. (Guglielmino, 1978, p. 63)

The scale was meant to be used as an assessment tool for institutions to gauge potential drop outs, for learners to perform self-diagnostics, or for the creation of a course on SDL (Guglielmino, 1978, p. 20). Since its creation, it has been used for those, and many more purposes, and has been validated by many experts in the field (Delahaye & Smith, 1995; Durr, 1992; Finestone, 1984; Graeve, 1987; Hassan, 1981; Long & Agyekum, 1984; McCune & Guglielmino, 1991; Posner, 1990; Russell, 1988). In addition to the process model that spoke about adjusting teaching practices, Guglielmino (1978) showed that the learner can only be responsive to student-centered guidance when he/she possesses the right personality traits to be self-directed in learning.

Gerald Grow, on the other hand, while still focusing on the personality aspect of SDL, developed the Staged Self-Directed Learning (SSDL) model (Grow, 1991). His idea in creating this model was to demonstrate how there needs to be a match between the self-directedness of a student and the teaching style of a teacher. He defined four stages of self direction; from lowest to highest: 1- dependant learner, 2- interested learner, 3- involved learner, and 4- self-directed learner (Grow, 1991, p. 129). He also defined four types of teaching styles that match with the four stages in this order: 1- authority, 2- motivator, 3- facilitator, and 4- delegator (Grow, 1991, p. 129). When there is a match between the learner and the teaching style, then Grow (1991) suggests that learners are more easily capably of advancing to the next stage of self-direction in learning.

Grow (1991) also notes that it is the teacher's job to equip students to be more self-directed, and to push students towards more autonomy. "The goal of the [formal] educational

process is to produce self-directed, life-long learners. Many current educational practices in public schools and universities, however, do more to perpetuate dependency than to create self-direction" (Grow, 1991, p. 127). So, in Grow (1991)'s view, self-direction is indeed a personality trait, but it is one that is variable, and can be taught. In fact, in the SSDL model, a learner that is not self-directed could become so, even if the teacher uses an authoritative teaching style. Grow (1991) even suggests that it is necessary for a stage 1 learner to have a coach-like teacher to be able and confident enough to move to stage 2.

Oddi. The final theorist I want to discuss as a proponent of the personality model of SDL is Oddi (1987).. According to Oddi (1987), the process model is inadequate due to its failure to account for persistence in learning, and its marginalization learners that are not efficient planners. Her argument was that, although a learner can learn the skills required to be self-directed according to the process model, the persistence in learning throughout life is a psychological variable, "and is not necessarily dependent on skill" (Oddi, 1987, p. 26).

Oddi (1987) suggests three advantages to linking SDL to personality, rather than process. First, SDL can be studied regardless of the mode or environment of the learning activity. Second, she argues that psychological attributes are relatively persistent throughout one's life; therefore, linking SDL to personality could produce a stable indicator of the relationship. Third, Oddi (1987) suggests that linking SDL to personality could provide a framework where other aspects of SDL could be studied. In sum, linking SDL to personality is a more reliable and encompassing way of studying the concept (Oddi, 1987).

SDL as Environment

Other than process and personality, one research in particular makes the case for the environment as being the most important determinant of SDL. Spear and Mocker (1984)

stumbled upon this finding while trying to validate the research of Tough (1968). They used an altered version of the Tough (1968) interview questions, but arrived at a different conclusion. They found that, unlike the planning process outlined by Tough (1968) and described as necessary for SDL, the circumstance that motivated the learning and the circumstance of the learning itself were better indicators of SDL than the linear planning model he proposed (Spear & Mocker, 1984).

Spear and Mocker (1984) use the term "Organizing Circumstance" to define a totality of environmental (or circumstantial) elements that impact the way learners learn. Although they found that these elements are often related to gender, socio-economic class, life style, religious preference, etc., they emphasize that the uniqueness of each individual circumstance is most significant (p. 8). While they do not deny the aptitude, energy, creativity, and tenacity that individuals may bring to a learning experience, these theorists believe that "the most powerful determinants lie primarily within the circumstance which, in turn, tend to structure or organize the learning project" (Spear & Mocker, 1984, p. 9).

The Discussion section in this article is framed by the explanation of a self that is highly influenced by psychological, social, and physical elements (Lewin, 1951 as cited in Spear & Mocker, 1984, p. 15). According to Lewin (1951) in Spear and Mocker (1984), the combination of these elements determines the "life space" of a person, which in turn impacts the self-directedness of a learner (p.15). For example, Spear and Mocker (1984) share the story of two men that want to fix their brakes: one learns the task by asking his neighbor when he sees him working on his car, while the other learns from the experts at his place of work (p.16). This example shows that, although the two men are learning for the same reason, their unique circumstances greatly affect their learning process by limiting and organizing their learning.

I believe that the defining of the self, or the "life space," was extremely important for future research in SDL. Until the research by Spear and Mocker (1984), the "self" in SDL was often assumed to be self-determining, but the organizational circumstance component was evidently missing. The theorists do believe in autonomy and free will, but they say that our choices and learning are greatly affected by the circumstances and environment in which they occur (Spear & Mocker, 1984, p. 17).

SDL Redefined

Although this literature review has not been entirely in chronological order, the sequence that I have opted for is one that makes a logical progression of the developments in SDL. From process, to personality, to environment, the next big step is a fusion of the three ideas to create a more complete definition of SDL. This subsection is dedicated to a few theorists that have synthesized the different perspectives of SDL to create new dimensions and questions for further research. The publications are all from around the same time period (late 80's-early 90's), a time when distance and technology-assisted adult-learning were gaining popularity. This was a time when research on SDL started being a lot more critical of the findings and assumptions of the past. The theorists that will be discussed here are Caffarella and O'Donnell (1987), Brockett and Hiemstra (1991), Candy (1991), and Brookfield (1985; 1986).

Caffarella and O'Donnell (1987) offer a concise review of the research in SDL at the time, while critiquing and offering new directions of study based on the work of prominent theorists in the field. In the introduction of their article, the authors start with some fundamental assumptions that they believe should be tested. They state these assumptions before the methodology of their research, and without explicitly addressing them throughout their article: SDL is good, people prefer SDL, and adults want and need help in their SDL (Caffarella &

O'Donnell, 1987, p. 199). I think these are important to mention because these are the fundamental assumptions on which most, if it all, of SDL research is based on.

To begin their analysis of SDL publications, Caffarella and O'Donnell (1987) first discuss general criticisms that they have about studies on SDL. They list thirteen "verification studies" that confirmed the existence of SDL activities and interests, and argue that there are four issues that arise from their review: "(a) the populations are primarily middle class; (b) the Tough schedule calls for probing and prompting which can contaminate findings; (c) subjects must primarily look back in time to reflect on their learning experiences; and (d) in general, enough verification has been completed (Caffarella & O'Donnell, 1987, pp. 200-201). So, noting the abundance of research done on the topic of verifying the existence of SDL, the authors try to persuade future research to focus instead on dealing with the first three issues: (a), (b), and (c).

After stating their opinion on verification studies, Caffarella and O'Donnell (1987) go on to criticise four other aspects of the SDL research at that time. They discuss the nature of the method of SDL, the nature of the individual learner, the nature of the philosophical position, and policy issues (p. 199). In the nature of the method, the authors compare the interpretation of interviews conducted by Tough (1978) and Spear and Mocker (1984). They highlight the difference that was observed in the importance of planning in SDL. Tough (1978) suggested that, whether conscious or not, there are some clear and defined planning steps that self-directed learners follow when learning, whereas Spear and Mocker (1984) barely noticed the existence of such steps in the self-directed learning projects of their participants. In comparing the different perspectives on the types of learners, the authors found that there needs to be more research on collaborativeness among independent learners. In comparing the competencies of self-directed learners, the authors found that there needs to be more research on "understanding how adults

acquire and increase their efficiency and effectiveness in self-directed learning projects" (Caffarella & O'Donnell, 1987, p. 204). And, in exploring the different learning resources that have been documented, they found that there are as many types of learning resources as there are unique learners, so there needs to be "an elaboration of what our roles are" as educators in the learning process (Caffarella & O'Donnell, 1987, p. 204).

In discussing the nature of the individual in SDL research, they found a few contradictions in many areas: demographic data, learning style, readiness of self-directed learning, locus of control, and personality characteristics. The authors found: varying results on the effect of educational level as a predictor for SDL (Bejot, 1981; Cobb, 1978; Reed, 1980), the learning style of self-directed learners is still undefined, the SDLRS (Guglielmino, 1978) has been validated and disproved many times (Long & Agyekum, 1983), "hours devoted to SDL did not correlate with locus of control measures" (Skaggs, 1981, as cited in Caffarella & O'Donnell, 1987, p. 205), and personality characteristics were seen as both unimportant (Fox & West, 1983) and important (Oddi, 1984; 1986, as cited in Caffarella & O'Donnell, 1987, p. 205). Nevertheless, the authors do make it clear that they believe SDL is more of a personality trait than a process or an environmental aspect, and conclude this section with a series of questions:

> What comes first: the skill to learn or the motivation to learn; and, what is the role of skills in relation to the broad view of SDL as a personality construct? Does the pedagogical schooling of our citizens which features teacher control act as a negative influence on fostering SDL? If so, can it be reversed? How does personality relate to the reversal? (Caffarella & O'Donnell, 1987, p. 206)

In order to explore these questions, Caffarella and O'Donnell suggest the application of rigorous quantitative research procedures to qualitative investigations. They believe that there needs to be a shift towards random participants rather than the use of volunteers, and "in-depth

qualitative research is also important to give us the rich and complete descriptions necessary for more fully understanding individual learners" (Caffarella & O'Donnell, 1987, p. 206).

As for the nature of the philosophical position, the authors look at Mezirow (1985), Brookfield (1985), and Houle (1984) to examine the philosophy of self-directed learning. Mezirow (1985) suggests that "self-reflective learning is essential" and that "critical reflectivity is an integral component of learning" (Caffarella & O'Donnell, 1987, p. 206). Brookfield argues that self-directed learning is actually an internal change of consciousness. Caffarella and O'Donnell point out the humanistic and existential perspectives of these theorists and that "their view is to look at the internal processes of SDL and determine what makes it different from other learning" (Caffarella & O'Donnell, 1987, p. 206)? On the other hand, Houle (1984) developed the "life-span perspective" where the stages of life unfold and the patterns of learning "evolve, merge, or change throughout a person's life" (Caffarella & O'Donnell, 1987, p. 207). Houle (1984) argues that the research in 1987 painted a "still picture" of learning, when there is in fact a lifetime of evolving learning practices to be examined (Caffarella & O'Donnell, 1987, p. 207).

The authors conclude this section by stating that they do not believe in the internal change of consciousness, but they applaud the work of the theorists they quoted. They believe there should be more research in this area, and academics with differing philosophies should work together to "start building a new empirical base from there" (Caffarella & O'Donnell, 1987, p. 207).

In the policy issues section, Caffarella and O'Donnell (1987) state that there no data-based studies in policy formation at the time of publication of their article. With that in mind, they formulated a few questions for future research that relate to mentions of policy discussed in previous research (Hiemstra, 1980; Tough, 1971; Penland, 1981; Brookfield, 1981; Spear &

Mocker, 1984). The questions regard "the role of the adult educator, educational institutions, and society" (Caffarella & O'Donnell, 1987, p. 209). The two most representative questions that I think are important to mention are: "What moves a person to set higher standards and engage in the learning necessary for achieving certain goals?" and "Should we be moving the individual toward societal rather than individual perspectives" (Caffarella & O'Donnell, 1987, p. 208)?

In conclusion of their article, Caffarella and O'Donnell advocate for: verification studies that observe a larger variety of demographics, studies that relate a planning learning style with competencies of SDL, more research on SDL as personality, "more studies to understand the nature of philosophical positions" (p. 209), studies looking at policy and social implications of implementing SDL practices, and studies that combine "in-depth qualitative and sophisticated quantitative research methods" (Caffarella & O'Donnell, 1987, p. 209).

Brockett and Hiemstra (1991) wrote a book with a similar objective as Caffarella and O'Donnell (1987), to review the literature on SDL, but came to slightly different conclusions. Instead of just ideas for future research, they also developed a framework for future research in SDL. The framework is called the Personal Responsibility Orientation (PRO) model, and it encompasses SDL as process, personality, and environment (Brockett & Hiemstra, 1991). What is new about this model is that personal responsibility serves as the starting point. "Personal responsibility refers to individuals assuming ownership for their own thoughts and actions. This does not necessarily mean control over all personal life circumstances or environmental conditions, but it does mean people can control how they respond to situations"(Hiemstra, 1994, sec.1.4). Learners must be responsible for their learning, making decisions about their learning, and learning from their mistakes. Although learners cannot control certain personal or

environmental factors, personal responsibility assumes that the learner will respond in such a way that it benefits them achieving in their goal.

Brockett and Hiemstra (1991) argue that personal responsibility plays a big part in enabling SDL as a process (or self-directed learning) and SDL as a learner characteristic (learner self-direction.) When discussing self-directed learning, "concern revolves around factors external to the individual. Needs assessment, evaluation, learning resources, facilitator roles and skills, and independent study are a few of the concepts that fall within the domain of the self-directed learning process" (Brockett & Hiemstra, 1991, p. 28).Whereas when discussing learner self-direction, it "refers to characteristics of an individual that predispose one toward taking primary responsibility for personal learning endeavors" (Brockett & Hiemstra, 1991, p. 28). Examples of such characteristics are: "self-concept, readiness for self-direction, the role of experience, and learning styles" (Hiemstra, 1994, sec. 1.4). Brockett and Hiemstra (1991) propose that, when a learner takes personal responsibility for both the self-directed learning process and the development of learner characteristics, this is called self-direction in learning (Brockett & Hiemstra, 1991, pp. 29-30). Not to forget the importance of the environment or circumstance of the learning activity, the authors point out that the entire PRO model operates within a social context that includes, but is not limited to, institutional practices, policy issues, cultural practices, etc. (Brockett & Hiemstra, 1991).

With this model, Brockett and Hiemstra (1994) made the necessary distinction between self-directed learning, learner self-direction, and self-direction in learning. Furthermore, they coined a new term, "personal responsibility" (p. 26), which considers the socio-environmental elements of a learning activity, and answers a lot of questions about agency, self-determination, and autonomy in SDL. In the conclusion of their book, they summarize the key components and

I think this one best summarizes their contribution with the PRO model: “Essential to success in facilitating self-directed learning is the need to help learners assume greater responsibility for the process. We believe that learners are capable of assuming increasing degrees of responsibility for their learning” (Brockett & Hiemstra, 1991, p. 217).

Candy (1991) wrote a book to attempt to demystify the concept of self-directed learning and propose his new ideas. He explains self-directed learning as being both a process and a personality, but divides these two perspectives further: process means learner control and autodidaxy, and personality means self-management and personal autonomy. There is also a gray zone between learner control and autodidaxy where the two overlap and it is unclear whether it is solely autodidaxy or personal autonomy that is occurring. To summarize, when a learner is self-directed in a formal learning environment, he/she has learner control (process) and uses self-management (personality) skills to learn through instruction; whereas a learner that is self-directed outside a formal learning environment is using autodidaxy skills (process), and has personal autonomy (personality) in the learning process (Candy, 1991, p. 402). The former represents someone who is able to self-manage and self-evaluate in a setting with an instructor, and the latter represents someone who can reach their learning objective while being completely free and in control of the learning process. Candy (1991) notes that it is important to understand how the learner views him/herself because, for example, an autodidact needs to feel in control of their learning, and taking away that feeling of control would not be helpful.

Further to this discussion, Candy (1991) suggests that there are 3 dimensions that, combined, create the space in which a learner can be self-directed. I use the word space because candy illustrates the co-dependence of these dimensions in a three-dimensional picture of a rectangle: Competence is the height, Rights is the width, and Resources are shown as the length.

To give an idea of what is meant by these three dimensions, here are a few examples: Competence refers to skills such as: literacy and numeracy, information location and retrieval, goal setting, time management, question-asking behaviour, critical thinking, comprehensive monitoring and self-evaluation (Candy, 1991, p. 418). Resources refer to "(…) intangibles such as time or money, or more tangible aspects such as newspapers and journals, libraries and resource centers, laboratories, radio and television broadcasts, computer-based instruction materials, as well as internships, practicums, and job placements" (Candy, 1991, p. 419). And, finally, Rights refers to what the individual learner is actually permitted to do, and, in a more societal perspective, what the individual believes he is permitted to do. Candy (1991) is not talking about rights in the legal sense, but rather "in the context of enabling personal space or discretionary power to act on one's own behalf that derive from societal structures" (p. 420). The author posits that the self-directed learner occupies a space within the imaginary rectangle, depending on the amount of competence, resources, and rights he/she possesses.

Finally, Candy (1991) cautioned against using SDL as a solution to all the problems in adult education. If we don't understand SDL in the elements and dimensions that he discussed, we may fall into the trap of saying that all learning is self-directed, and/or self-directed learning is the only and best way to educate all learners. Although he makes reference to societal and environmental factors, it is clear in his discussions that SDL is much more of an individualistic concept than a collectivist one.

Stephen Brookfield is the last theorist that will be discussed in this sub-section. In his book, Brookfield (1985) involves the work of many different authors, some with varying perspectives, to create a collection of relevant works on SDL. Within this collection of eight articles, he authors three, but only the first one about a critical review of the research is relevant

to this literature review. Another publication, this one only authored by Brookfield (1986), will be discussed in part through the review done by Guglielmino in Confessore and Confessore (1992).

In chapter one of Brookfield (1985), the author recommends, as the title suggests, a critical review of research in SDL. He notes that almost as soon as the work of Tough and Knowles were published in the 60's and 70's, major institutions put a lot of focus and resources on SDL and SDL tools (such as the SDLRS (Guglielmino, 1978)). With this in mind, he suggests that we start "to subject research and theory in this area to close and critical scrutiny" (Brookfield, 1985, p. 6). In this chapter Brookfield (1985) also emphasizes the importance of the social setting: self-directed learning is impossible if it is considered without the presence of influential external factors (Brookfield, 1985, p. 7). Concerning learning style, the author suggests that learners in "free and democratic societies" are unfairly predisposed to being self-directed in learning (in the way it is currently defined), whereas learners in more "rigidly controlled societies" are undervalued due to their habituation of "imposed patterns of behaviour and authoritarian control" (p.9). Brookfield (1985) thinks that simply by being aware of their context and condition can promote SDL in more controlled societies. Throughout the rest of the chapter, Brookfield (1985) criticises that lack of variety in the demographics of studied populations, and the lack of critical reflection included in the concept of SDL. Based on critical pedagogy, Brookfield (1985) believes that teaching students to be critical thinkers, both in the learning and the subject of learning, should be elementary to SDL in order for the learning to be meaningful (Brookfield, 1985, p. 15).

The other book that will be discussed in this review is Brookfield (1986). As mentioned previously, this book will be reviewed primarily based on the review done by Guglielmino in

Confessore and Confessore (1992). The book starts with Brookfield (1986) stating that the most important role for facilitators is to "promote empowerment and self-direction in learners" (Guglielmino, in Confessore & Confessore, 1992). Facilitators can do this by "responding to and developing proactive, initiating individuals engaged in a continuous re-creation of their personal relationships, work worlds, and social circumstances…"(Brookfield, 1986, p. 11, as cited in Guglielmino, in Confessore & Confessore, 1992, p. 112).

In chapter 3 of his book, Brookfield (1986) addresses the issue of defining SDL. He suggests that it needs to be understood more in terms of mental dispositions, but not in the sense that has been asserted to that date. Brookfield (1986) ends the chapter with a definitive definition:

> Self-directed learning as the mode of learning characteristic of an adult who is in the process of realizing his or her adulthood is concerned as much with an internal change of consciousness as with the external management of instructional events… The most complete form of self-directed learning occurs when process and reflection are married in the adult's pursuit of meaning. (Brookfield, 1986, p. 58, as cited in Guglielmino, in Confessore & Confessore, 1992, p. 112).

Other than his criticism about the lack of variety in the demographics of the participants of most studies on SDL, Brookfield (1986) also argues that the methods in which SDL is being studied is not adequate. He states that tools such as the SDLRS (Guglielmino, 1978) and the Tough (1967, 1968, 1979, 1982) interview questions limit research rather than expand on it. These tools seem to dictate the ways in which research is conducted or, as seen in the Tough questions, even alter the way respondents answer questions. Instead, Brookfield (1986) suggests using open-ended conversational questions to extract data from participants. Another important criticism about SDL research is the lak of research on the quality of learning achieved in self-directed study, "an omission that he feels it is essential to address" (Guglielmino, in Confessore & Confessore, 1992, p. 115).

Chapter four of his book mainly deals with the differences in being self-directed individually or a group setting. Brookfield (1986) notes that, although one is not better than the other, the advantages of group learning include: the validation of one's own experiences and ideas, the acquisition of new insights and interpretations base don interchanges with fellow learners, and the enthusiasm generated by the process of learning (Guglielmino, in Confessore & Confessore, 1992, p. 115). What this means for facilitators is that, first of all, they need to realize that not all adults will be equally self-directed in their learning. Through our formal schooling system, adults have been trained to be "dependent and teacher-directed learners in a classroom context" (Guglielmino, in Confessore & Confessore, 1992, p. 115). So, some students may respond positively to the change in learning style, while others might feel intimidated by an approach they are not familiar with. The second implication for facilitators that want to facilitate SDL in a classroom environment is that certain aspects of a school setting are just not conducive to such practices: grading policies, discipline policies, pre-determined curriculum, etc. However, certain things can be done to reverse some of those effects, such as the implementation of a learning contract that students need to abide to (Guglielmino, in Confessore & Confessore, 1992, p. 117).

In his book, Brookfield (1986) emphasizes many criticisms to SDL definitions and research. First and foremost, SDL should include critical reflection. He also proposes that one of the most valuable assets of a self-directed learner is the potential to create networks of fellow learners that are interested in the same subject; this can be done in a group-learning setting, or individually through communication technologies. The other issues in the book are related to facilitator responsibilities in promoting critical though on SDL, and the inherent contradictions in

promoting SDL in a formal schooling environment. Brookfield (1986) brings up a lot of very important issues that are extremely relevant to the context of this literature review.

SDL as it Relates to this Research

Following a review of the main perspectives on SDL, this part of my literature review will cover the authors that discuss aspects of SDL that relate directly with the study I conducted. In the discussion section, Long (1982; 1990) and Bouchard (2009; 2010; 2011a; 2011b; 2014) will be discussed here as they helped create the framework around which my research was conducted and analyzed. Following a brief review of their relevant work, the connection with this literature review and the methodology of this research will be discussed.

Huey B. Long's contributions to SDL are wide and varied. He has commented, criticised, and built upon many of his peers and predecessors, which makes him a necessary stop when studying SDL. In fact, his theory on control, as explained in Long (1982, 1990), Tremblay, in Confessore and Confessore (1992), and Bouchard (2009), serves as a cornerstone for the conception of this study.

Long (1990) describes self-directed learning as being a combination of pedagogical and psychological control that are set in a social context. Long (1990) explains that the social perspective of SDL is divided in two possibilities: learning in isolation, and learning in a group setting. Learning in a group setting is what both Long (1990) and I are concerned with, and he calls this pedagogical self-directed learning (Long, 1990, p. 333). Pedagogical self-directed learning happens when there is a combination of psychological control and pedagogical control with the learner (Long, 1990). Psychological control refers to the "mental activities of the learner" (Tremblay, in Confessore & Confessore, 1992) that include motivation, initiative, and involvement (Bouchard, 2009, p. 94). Pedagogical control refers to the elements of the learning

activity that are external to the learner: learning objectives, learning resources and procedures, pace of learning, etc. (Bouchard, 2009, p. 94). "When each of the forms of control are equal or when psychological control exceeds pedagogical control (of a teacher, tutor, etc.), the situation can be described as a self-directed learning condition" (Long, 1990, p. 333).

So, as long as the learner has psychological control (motivation, initiative, etc.), self-directed learning can occur. Although, with the added component of pedagogical control, the idea of learner control, as discussed by Bouchard (2009; 2010; 2011a; 2011b; 2014), expands, and self-direction is increased.

Bouchard (2009; 2010; 2011a; 2011b; 2014) bases his idea of autonomy and control partly on the work of Rousseau: "There is only one man who gets his own way – he who can get it single-handed. Therefore freedom, and not power, is the greatest good. This is my fundamental maxim …and *all the rules of education spring from it* (Rousseau, 1762: 1972, p. 48, as cited in Bouchard, 2010, p. 1-2). In addition, his conception of learner control also partly derives from the work of Candy (1991) and Long (1990; 1993). Bouchard (2009) expands on the idea of psychological and pedagogical control (Long, 1990) by changing their label, adding components, and suggesting new dimensions of learner control. According to Bouchard (2009), learner control refers to the combination of dimensions in which a learner has some degree of control or autonomy. With the work of Long (1982), two of these dimensions were identified: psychological and pedagogical, but with the work of Bouchard, there are now a total of four dimensions: conative, algorithmic, semiotic, and economic (Bouchard, 2009, p. 95). Below is a diagram showing the components of each dimension of learner control:

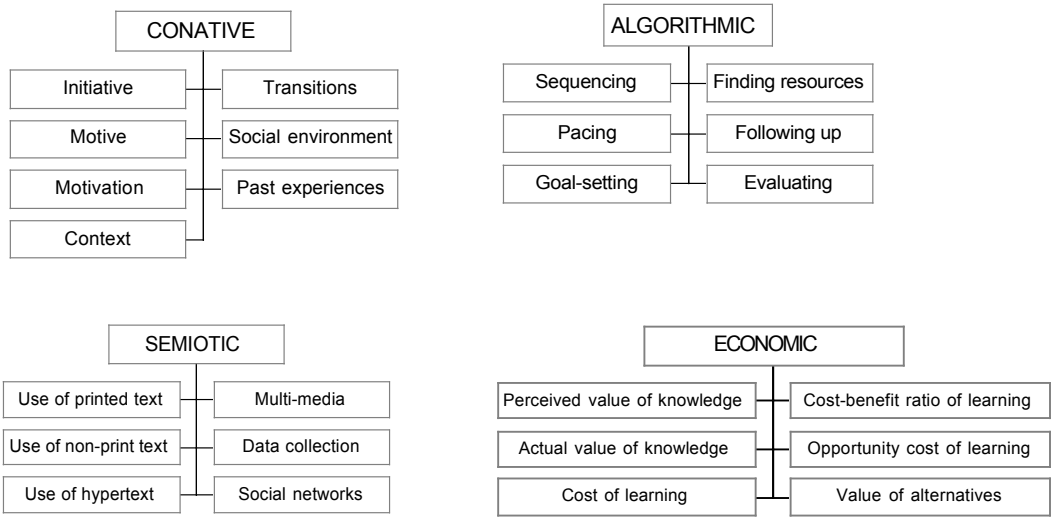

Figure 1. The four dimensions of learner autonomy

Source: Kop & Bouchard, 2011

Bouchard explains that the aspects of psychological control are now included in the **conative** dimension, where initiative, motivation, and non-learning goals (motives for learning) are concerned. Aspects of pedagogical control are now included in the **algorithmic** dimension where the pace of learning, learning goals, resource selection, and evaluation are concerned. The two newest dimensions that were added by the work of Bouchard (2009; 2010; 2011a; 2011b; 2014) are the clusters of environmental factors that he calls the semiotic and economic dimensions. The **semiotic** dimension includes the social interactions in a learning environment (on- or offline), the use of text and hypertext (associated with the meaning it has to the learner), and collecting and using information. This dimension is therefore concerned with the way the learner interacts with the possible sources of new information. In other words, it is the choices the learner has to make about the development of social and knowledge-based networks. Finally, the **economic** dimension concerns the perceived value of the knowledge being acquired, the cost-benefit ratio of learning, and the opportunity cost of alternatives (Bouchard, 2009, p. 96). This dimension therefore refers to the choices a learner makes concerning the economic repercussions

of participating in a learning activity: namely the cost and the potential financial benefits of acquiring the new knowledge.

Learner control, or autonomy, is therefore guided by the availability of choices a learner can make in these four dimensions. “In the course of pursuing their self-directed project, learners will typically exercise some degree of control in each of the dimensions of learner autonomy” (Bouchard, 2011a, p. 3). Therefore, the implication for facilitators is the need to first make learners aware of these dimensions, and then allow as much learner control as possible to increase the SDL in the learning activity.

Fournier & Kop (2010) performed a study where the Bouchard (2009; 2010; 2011a; 2011b; 2014) model was utilized. They highlighted the usefulness of the four dimensions in studying SDL, but addressed the lack of critical literacy in the concept.

Relation to Study

With ideas dating back from Houle, Tough, and Knowles, Bouchard was able to combine most relevant elements of SDL in a single comprehensive model. This research will use the Bouchard model of multiple dimensions of learner control to assess how the learning environment of an IB high school class is conducive to SDL. Learner control (or learner autonomy, used interchangeably) in each dimension will be addressed individually in order to give a clear and detailed picture of SDL in the classroom, while contributing to the small existing body of research concerning SDL and high school students.

Below is a graph summarizing how each of the authors covered in this literature review conceptualize(d) SDL:

SDL as Process	SDL as Personality	SDL as Environment	SDL as a Combination of Factors
Houle	Guglielmino	Spear & Mocker	Caffarella & O'Donnell
Tough	Grow		Brockett & Hiemstra
Knowles	Oddi		Brookfield
			Candy
			Long
			Bouchard

Methodology

This study qualitatively analyzed the concept of learner control in self-directed learning in an IB programme of an English-speaking high school on the island of Montreal. To begin, I want to emphasize the importance of using qualitative inquiry in the field of education. Quantitative studies and studies sponsored by corporations have, for a long time, guided educational policy because of the general reproducibility of results, and the power of governmental lobbying (Pring, 2000a). Indeed, reproducibility of results is an important aspect for a policy to have, as policies encompass large geographical areas containing a variety of diverse socio-economic groups. The issue with reproducibility in education is that humans are unique in many ways, and educational research and policy need to reflect this reality. This research is not meant to create a universally reproducible model of education, instead it will seek to establish a mindset for educators and policy-makers to create an educational environment that is flexible, collaborative, democratic, individualized, and, ultimately, self-directed.

The IB programme is an international programme intended for high achieving high school students around the world (School, 2013). I spent five weeks- four days a week- for approximately one hour a day, conducting a direct observation. The class I observed was an IB English course for secondary 5 students. The participants in the study were: students in their mid teens that were preferentially selected based on academic merit to participate in the IB programme, and a classroom teacher that happened to have a PhD. in Education (Field notes). I decided to focus on the IB programme because it is described as a programme that promotes, among other things, self-directed, independent and life-long learning (IBMYP, 2014).

Document Analysis

First, I analyzed the curriculum documents that describe and explain the IB programme. In this documentation, I found evidence of some components of the dimensions of learner control (Bouchard, 2009; 2010; 2011a; 2011b; 2014) within the description and structure of the program. The curriculum documents that were analyzed were: the guide to the personal project that all IB students must complete for certification and the official websites of the school and the IBMYP.

My methodology for analyzing and interpreting the curriculum documents are based on the work of Caulley (1983). In his work about document analysis, Caulley (1983) offers the purpose and method for conducting a research based on the interpretation of documents. In fact, he mentions specifically the relevance of using document analysis to study education curricula: "Document analysis is superior for finding out retrospective information about a programme and may be the only way that certain information may be obtainable" (Caulley, 1983, p. 19). Furthermore, Caulley (1983) emphasizes the importance of analyzing curriculum documents prior to collecting new data due to the content, which usually contains purpose, rationale, and

history of the programme being studied (p. 19).

Direct Observation

Second, as mentioned previously, I used direct naturalistic observation as part of my methodology. Through my observations, I conducted a qualitative analysis on the four dimensions of learner control that exist in the learning process and environment of the course. My understanding of a meaningful observation is taken from Pring (2000b), where he discusses the two main issues in providing an accurate and relevant observation:

> First, observations are 'filtered', as it were, through the understandings, preferences and beliefs of the observer. Second, what is observed is not open to immediate acquaintance – the meanings and motives of those who are observed need to be taken into account. (Pring, 2000b, p. 35)

With this in mind, I hereby acknowledge that my observations were not objective; they were influenced by my socially mediated perception of reality, because the motivations behind the behaviours of my participants were only entirely known to the participants themselves. Nonetheless, all behaviours were interpreted by me as an external observer.

Furthermore, I would like to briefly discuss the Hawthorne effect and its implications in my study. According to Suter (2012), the Hawthorne effect is the effect that the observer may have on the behaviour of the subjects. Therefore, by simply being present in the environment of the students, their behaviours were modified to adjust and respond to my presence. In order to limit the negative/misleading effects of the Hawthorne effect, I ensured to limit the details of my study to what was ethically required and included in the consent forms that were signed by the participants. After my observation period was complete, I gave the participants more details about what and why I observed in their classroom for the preceding 5 weeks. Most students considered me as a sort of student-teacher (teacher in training), which they have gotten many of in their years at school, so their behaviours were quickly returned to what seemed like more

habitual patterns after an apparent initial unease. However, the Hawthorne effect seemed to be much more apparent with the substitute teachers. They asked me why I was there and what I was doing, and often glanced at me whenever they made statements to the class. I believe that they felt they were being evaluated by my study, and that they wanted to impress me by attempting to show that they had control over the class. I tried to tell them that I was not there to judge them, but I feel like my presence did alter their behavior, and possibly made some of them uncomfortable.

My observation focused on different aspects of the class in order to properly assess the different dimensions of learner control. For the algorithmic dimension, I observed different facets of the learning environment (including references to curriculum, verbally stated learning objectives, and student-teacher interactions), and the physical characteristics of the classroom that impeded or promoted self-direction in learning. As for the conative dimension, I did not look at a specific student, but rather at the class as a whole. This does have some drawbacks in terms of not knowing specific personality characteristics that a specific student might possess that promote SDL, but for the purposes of this thesis, a general portrait of common conative traits in the class is all that is necessary. Components of the semiotic and economic dimensions of learner control were observed based on the overheard conversations amongst participants, interactions amongst participants, and behaviours of the participants.

In addition to the formal observation, I also had the opportunity to have informal discussions with staff at the school. I spoke with the classroom teacher, substitute teachers, and the IB programme coordinator. These conversations were recorded after the fact, in the form of brief notes highlighting what was discussed. The learnings from these conversations will be discussed in the context of the observations.

Analysis and Interpretation of Results

Finally, the last part of my research was a comparison and combination of the results of the observation and the document analysis. The results will draw from a mix of structural and policy components based on my document analysis, and contextual aspects of the classroom, behavioural anecdotes, and dimensions of learner control based on my observations.

Biases & Limitations

Personal Bias

As in all qualitative studies, personal bias plays a big part in every aspect of the research. Therefore, it is no secret that I have biases that will affect the way in which data is collected and discussed. These biases are formed in part by, but are not limited to, my socio-economic status and the environment in which I was formally educated.

I grew up on the West-Island of Montreal in a middle-class family. Middle-class meaning my parents both had socially acceptable full-time employment that allowed for two cars and yearly overseas vacations. I went to a private Catholic French school, which was, in terms of private Catholic French schools, progressive. It was progressive in the sense that there were no prayers and no religious figures around the school. On the other hand, there were strict rules against speaking a word of any language other than French, sixteen foot fences around the small recess area, a uniform dress code, and a rigid curriculum containing Catholic education courses. On the positive side of things, the school taught me very important lessons about discipline and respect, for which I am extremely grateful. On the negative side of things, the books that we were forced to read, and the rigidity of the lesson plans made me hate school, “learning”, and

especially reading. This led me to develop a personal strategy to get a good grade in book reports, until I started university and began to enjoy reading again.

It is unfortunate when one thinks about all the years of reading that I missed out on because of my negative experiences at this school. Reading is the traditional means by which knowledge is acquired in formal education settings. With that in mind, I would suggest that the learning that I experienced in my school-aged years was quite different than the norm, and quite similar to aspects of SDL. My personal strategy to get a good grade in book reports or examinations was two-pronged: a thorough online research of the book, and many conversations with friends who read it. These steps were done in order to synthesize and reformulate opinions and descriptions of the peripeteia. The end result was often better grades than those who took weeks to read the book. In my adamant avoidance of reading, I developed skills and strategies that are not valued in schools, but that end up being quite useful in almost every other context of life. I think that I managed to learn more through my personal strategy than I would have by attempting to read books that I had no interest in reading. My personal experience at school will definitely affect my perception of SDL, as I view it as a potential saviour for those who do not fit into, or feel ostracized by the pre-determined curriculum of the QEP.

Contextual Limitations

In terms of the research itself, my limitations concern the demographic of the students and the time that I had available to conduct my observation. It would have been ideal to study different students from different schools, but the complexity of conducting an observational study with minors and the time constraints of this research only allowed for one location to be studied. This school is placed in a relatively high socio-economic location, with most students

having smartphones and fashionable clothing to wear to school. This is a limitation, but also a specification in the type of SDL that can be promoted with this demographic.

In terms of the time, I was able to spend 5 weeks, 4 days a week, 1 hour a day, observing a secondary 5 English class. I believe this is sufficient for gaining an understanding of the conduciveness to SDL in this context, but more time could have possibly generated different results. Not only because of the quantity of observation time, but also because of the additional activities and projects that I would have observed.

Findings

This section will describe the findings of my document analyses and observations. For the data analyses, I will start by describing the IB programme, as described on the official websites of the school and the programme. This will be followed by a description of the Personal Project, as described in the Guide to the Personal Project (Guide to the Personal Project (GPP), 2014). Based on these document analyses, I identified the dimensions of learner control that are made available for secondary 4 and 5 students in the conception of the IB programme.

As for the observations, I will first describe the school environment as it relates to social aspects of the students and the structure of the school day. Then, I will describe the in-class observations which are categorized in terms of: structured learning activities, unstructured learning activities, and evaluation processes and guidelines. This will be followed by a discussion of the dimensions of learner control that are apparent in my observations.

Document Analyses

IB Programme. The data for this subsection were taken from the official IBMYP brochure, as found on the IB programme website (IBMYP, 2014), and the IB programme section

of the school's website (School, 2014). First, the IB programme will be introduced, and then I will offer a description of the IBMYP more specifically.

The official IBMYP brochure was created by the IB Organization for the purpose of informing the public of their motives and intentions. It looks like a detailed piece of advertising, meant to persuade readers that the IBMYP programme is the ideal place for high school students. Large photos of smiling students and colorized graphs are used to draw in the reader and allow for a concise and complete picture of the programme.

The IB programme is described as a continuum of programmes for students aged 3 to 19. An IB education focuses on learners (student-centered), develops effective approaches to teaching and learning, works with global contexts, and explores broad and balanced content throughout its curriculum (IBMYP, 2014, p. 2).

Furthermore, according to the IBMYP brochure, IB learners strive to be: Inquirers, Knowledgeable, Thinkers, Communicators, Principled, Open-Minded, Caring, Risk-Takers, Balanced, and Reflective (IBMYP, 2014, p. 2). This is called the IB Learner Profile. The GPP (2014) describes these attributes in detail. For the purposes of this study, I will define 5 out of the 10 in this subsection, rather than the next where the GPP is analyzed in more detail:

> **Inquirers**: We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.
> **Thinkers**: We use critical and creative thinking skills to analyze and take responsible action on complex problems. We exercise initiative in making reasoned, ethical decisions.
> **Open-Minded**: We critically appreciate our own cultures and personal histories, as well as the values and traditions of others. We seek and evaluate a range of points of view, and we are willing to grow from the experience.
> **Risk-Takers**: We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.

> **Reflective**: We thoughtfully consider the world and our own ideas and experience. We work to understand our strengths and weaknesses in order to support our learning and personal development. (GPP, 2014, p. -1)

So far, I have described core components of the IB programme as a whole (all the age groups), but now I will discuss the MYP programme specifically. The programme is designed for high school students (ages 11 to 16) and it encourages students to be creative, critical, and reflective thinkers. This programme can be adopted by any high school that is able to implement the procedures and guidelines outlined by the International Baccalaureate Organization (IBMYP, 2014). The brochure indicates that the IBMYP addresses learner well-being, offers opportunities to develop knowledge, attitudes and skills, "ensures breadth and depth of understanding through study in eight subject groups", requires the study of at least two languages, "empowers students to participate in service within the community," and "helps to prepare students for further education, the workplace, and a lifetime of learning" (IBMYP, 2014, p. 2).

The IBMYP (2014) brochure has a section about curriculum that explains how the courses are divided:

> The MYP consists of eight subject groups: language acquisition, language and literature, individuals and societies, sciences, mathematics, arts, physical and health education, and design. Student study is supported by a minimum of 50 hours of instruction per subject group in each academic year. In years 4 and 5, students have the option to take courses from six of the eight subject groups, which provides greater flexibility. (IBMYP, 2014, p. 2)

The brochure also explains that students learn best when the subject is relevant to their lives and experiences. So, "using global contexts, MYP students explore human identity, global challenges and what it means to be internationally minded" (IBMYP, 2014, p.2). Furthermore, the IBMYP allows students to apply concepts to various subject areas, and explore issues from a personal, local, and global perspective (IBMYP, 2014, p.2).

The next section of the brochure explains the Approaches To Learning (ATL) skills. These are skills that are developed throughout all MYP subject groups and provide a foundation for independent learning. This is said to help students learn how to learn (IBMYP, 2014, p.3). The skills are: Organization, Collaboration, Communication, Information literacy, Reflection, Thinking, and Transfer (School, 2014). These skills are implemented and encouraged in all the subject areas, and in both the projects that IBMYP students have to complete in order to have IB certification: the Community project and the Personal Project. The Community Project "encourages students to explore their right and responsibility to implement service as action in the community" (IBMYP, 2014, p. 3). The Personal project is about a "personal and creative piece of work that stands as a summative review of their ability to conduct independent work," (IBMYP, 2014, p. 3) although it will be discussed in much more detail in the following subsection.

The before-last page of the brochure explains the evaluation processes of the IBMYP. It is stated that assessment standards are consistent around the world. Typical assessment tasks include: "open-ended, problem solving activities and investigations, organized debates, tests and examinations, hands-on experimentation, and analysis and reflection" (IBMYP, 2014, p. 4). Assessment is done by the teachers, but based on the criteria given by the IB organization. The only exception is the Personal Project and final grade submissions in secondary 5, where samples of work are submitted to an external, IB-appointed, moderator for approval (IBMYP, 2014, p. 4). In 2016, it will be possible for students to submit their work for external moderation online.

Finally, the brochure (IBMYP, 2014) ends with the all-important mission statement of the IB organization:

> The International Baccalaureate aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural

> understanding and respect. To this end, the organization works with schools, governments and international organizations to develop challenging programmes of international education and rigorous assessment. These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right. (IBMYP, 2014, p. 5)

Personal Project. The GPP is a 56 page document that was drafted by the coordinator of the IB programme of the high school to help students meet the IB requirements for the Personal Project. This guide is meant to be a resource for secondary 4 students of the following academic year, as it contains a complete and comprehensive description of the personal project. The guide has 16 chapters that detail the underlying relevance, validity, and purpose, as well as the contents, and procedure related to the Personal Project.

The document's first page (not paginated) is an IB programme image that explains the "IB Learner Profile." At the bottom of the page, there is a statement that reads: "The IB learner profile represents 10 attributes valued by IB World Schools. We believe these attributes, and others like them, can help individuals and groups become responsible members of local, national and global communities" (GPP, 2014).

The first chapter of the guide is the introduction that is broken down into 5 sections: What is the Personal Project? Personal Project Aims, IBMYP Certification Requirements, Personal Project MYP Objectives, and The Three Components of the Personal Project.

What is the Personal Project? It is a "*self-directed* inquiry into an area of interest" (GPP, 2014, p. 1). It is to be noted that this is the IB Organization's definition of *self-directed*, and not mine. It is a "project initiated and developed by the student, demonstrating their ability to apply ATL skills in a situation outside the classroom" (p. 1). The student must generate an idea for the project, plan each step, develop the evaluation criteria, create a product/outcome in response to the goal, context, and established criteria, and determine whether the goal has been achieved.

The project allows students develop an interest, apply ATL to produce a personal and creative outcome, develop and enhance ATL and IB learner attributes, analyze a topic through the lens of a broader "Global Context", establishing the relevance of the inquiry, and explore topics of interest through an inquiry, action, and reflection (p.1).

The Personal Project Aims section of the introduction discusses the overall objective of the project as a learning activity. The GPP (2014) states that the project aims to

> Encourage and enable students to:
>
> - Participate in a sustained, self-directed inquiry within a Global Context
> - Generate creative new insights and develop deeper understandings through indepth investigation
> - Demonstrate the skills, attidudes and knowledge required to complete a project over an extended period of time.
> - Communicate effectively in a variety of situations.
> - Demonstrate responsible action through, or as a result of, learning
> - Appreciate the process of learning and take pride in their accomplishments. (GPP, 2014, p.1)

The IBMYP Certificate Requirement section simply states that the Personal Project is mandatory for certification and that the student must achieve a grade of at least 3 on a total of 7 possible points.

The Personal Project MYP Objectives section delineates the four objectives of the project, which also serve as the grading criteria for the Project Report grading rubric. The four objectives and their characteristics, as explained throughout the chapters of the GPP (2014), are:

1. **Investigating**: Define goal and context based on interest, and demonstrate research skills.
2. **Planning**: Develop criteria for product/outcome, plan and record process, and demonstrate self-management skills.
3. **Taking Action**: Create a product/outcome in response to the goal, context and criteria and demonstrate thinking, social, and communication skills.
4. **Reflection**: Evaluate and reflect on quality of product/outcome against criteria, global context, and development as an IB learner. (GPP, 2014, pp. 2-3)

The final section of the introduction describes the three components of the project that students must submit: The Process Journal, The Personal Project Outcome/Product, and The Personal Project Report. Throughout the chapters of the guide, the GPP (2014) explains the components as such:

- Process Journal (pp. 5-7).
  - Evidence of addressing all four of the Personal Project Objectives to demonstrate achievement at the highest level.
- Personal Project Product/Outcome (p. 8).
  - Create product based on goal, Global Context, research findings, and developed criteria for project outcome/goal.
  - Evaluate the quality of the final product collaboratively with the supervisor, based on the established evaluation criteria, by the end of October. Ex.: art work, model, business plan, campaign, blueprint or drawing, essay, debate, film, etc.
- Personal Project Report (pp. 9-10).
  - Written report demonstrating evidence of the four objectives (6-14 pages). (GPP, 2014)

The grading rubric of the Project Report component allows for 4 levels of attainment for each of the objectives based on their three characteristics. Clear instructions about information details and format are given throughout the explanation of how each objective is graded (pp. 28-48).

Each of the three components of the project are explained in detail with information ranging from how to write a title page, to how to choose which entries to include in your Process Journal extracts. Following the chapters on each of the components, a detailed 27-step table on how to complete the Personal Project within specific timeframes is given, accompanied by 8 pages of further explanations on how to complete each of the steps. Within these steps are also tools and strategies that are required in the process journal, such as: a table-checklist of meetings with supervisor, brainstorming, and planning charts (GPP, 2014, pp. 14-17).

As for the Global Context aspect of the project, the term refers to “broader contexts for learning, providing opportunities for students to establish clear links between the subject-matter

and the real world through the exploration of issues and ideas of personal, local, and global significance" (GPP, 2014, p. 20). The relevance of the project to a Global Context needs to be apparent in the goal/outcome, and explained in the Reflection section of the Project Report.

At the end of the document there is a Final Checklist (pp. 49-50) with clear instructions on formatting and reminders of the required components of the project. This is followed by the same objective rubrics as the Project Report, but it is stated they also apply to the project as a whole.

There are also explanations of ATL skills and the IB learner profile, but these were already discussed in the context of the previous subsection.

Observation

First, I will describe the relevant characteristics of the school environment (location, structure of the day and social characteristics) and my in-class observations (structured and unstructured learning activities, and evaluation practices). Second**,** I will synthesize my observation's field notes to create a qualitative summary of what was observed.

The school is located in a suburban neighborhood on the island of Montreal, surrounded by single-family dwellings, a church, and a French high school close by. With over 1,000 students, the school is big but still quite crowded. Students are visibly from diverse backgrounds. The school is quite competitive in terms of academics, sports, and arts. This was easily noticeable in the trophies and plaques that cover the walls of the main hallway. One poster I thought was noteworthy depicted a man riding into the sunset on his bicycle with his two arms in the air, and the quote under him read: "Winners don't set limits, they set goals" (Field notes).

The school day consists of seven 50 minute periods, one of which is lunch. Students have 5 minutes to get to their next class. The first period starts at 7:55 am with the sound of a bell

followed by the Canadian national anthem, and the last one ends at 2:25 pm with the sound of the same bell.

The classroom had approximately 33 desks placed side-by-side for the 32 students of the class. The teacher expressed how proud he was of the personalization of his classroom. It had a bookshelf in the back where students could consult and borrow books at will. There were posters depicting natives, global and regional maps, and other old school-board posters meant to encourage students to read. The classroom had a projector set-up, but did not have a Smartboard. The students also had access to two computer labs and a room that was to become the Chromebook lab. The first lab, which students went to most of the time, was a converted classroom with posters about web-surfing, and art projects unrelated to computers. That lab had 29 Dell computers with flat-screen monitors. The second computer lab, which students went to once in my time with them, had about half the computers and similar things on the walls. The Chromebook lab was a new concept for the school, financed by the provincial government. It was a room with empty tables and a locker where students had to sign-out a Chromebook and return to their desks to use it (Field notes).

In-class activities could be described as being in two categories: structured and unstructured learning activities. Unstructured learning activities consist of times when students are left to complete a task without much interference or specific guidelines from the teacher, and structured learning activities consist of times when a specific task is expected to be done in a specific way, or a lecture is being given. In the first 4 out of 5 weeks of my observation students were working on their group project. The project required each student of the group of approximately 4 students to read the same book and collaboratively create different sections of an online Wiki page about the book. Students formed their groups by choosing the book they

wanted to read out of a list and grouping with like-minded peers. The project required each student to first read the book, and then complete each section of the wiki (one section to be submitted per week). The last week of my observation was simply draft writing for the final English exam that students were going to write in less than a month's time.

The structured learning activities consisted of quiet reading time, quiet writing time, lectures and discussions on common writing errors, and lectures about details pertaining to upcoming assessments. Unstructured learning activities consisted of the times students were given to work individually or as a team to complete their online wiki projects, either in class in or in the computer lab.

The assessments that I had the opportunity to hear about during my observations were about the online wiki project and the final English writing exam. Both those tests were graded based on different rubrics. The rubrics could be found in the appendices (Appendix A; B).

As for behaviors, the energy of the classroom was quite variable, and it had obvious repercussions on the productivity of the students. Energy was perceived in the way students behaved, spoke, and moved around in the classroom. Sometimes high energy meant off-task behaviour, but sometimes it meant creative and critical on-task performance. Low energy, on the other hand, usually meant off-task behaviours or productive clerical work (editing, reading, finishing homework, etc.).

During low energy periods in unstructured learning activities, students often chatted about unrelated matters for the entire time, snoozed on their desks, or passively surfed the web on their phones or the computers (Field notes). This is not to say that none of the students were productive in this time, but it is to say that the work being done was much more individual and clerical (editing, reading, finishing homework, etc.). During high energy times in unstructured

activities, students were either enthusiastically being off-task (flirting, playing, shopping for a new car, watching videos with friends, etc.) or creative and critical in being on-task (coming up with ideas, working collaboratively, critically searching the web, etc.) (Field notes).

During structured activities, the energy was either already low or slowly brought down in order for the teacher to facilitate the class. When the energy started low, students were often not participative in discussions, sleeping on their desks, using their cellphones for seemingly non-academic purposes, etc. When the energy started high, there was a lot more participation, interest, and attention given to the teacher throughout (Field notes). However, there would be more interruptions and distractions in high energy times. During these times, the teacher brought up humour and pop-culture references to make the information meaningful and interesting for the students. Whereas some substitute teachers usually made students do a certain task in a certain way, and usually in complete silence.

There were some instances where students were innovative and creative in their use of time and resources, mostly on high energy days (Field notes). For example, students would find ways of improving the aesthetics and user-friendliness of their wiki page (not required by the rubric) by searching the internet on how to implement components such as a search-box or uploading pictures (Field notes).

As for the assigned readings, although students had weeks to read their assigned book, many of them waited until close to the submission deadline to finish reading. Even though the instructions were to finish reading the book before doing the write-ups, the teacher allowed for students to write about up to where they were in their reading (Field notes). Also, in terms of the final exam draft writing that occurred in the last week of my observation, some students wrote a

big portion of their draft in the first day, while some wrote nothing (Field notes). This did not impact their grade directly, so pacing one's work was somewhat in the student's control.

The teacher let the students use the computer lab to do their wiki project most of the days, and was open to pretty much anything the computer could do to facilitate their learning. Some students were using Facebook to communicate with other group members, and one student was learning about current events on Reddit and Google News once she was done her work for the day (Field notes). Concerning cell phones, a student read his entire novel off his smartphone during reading time, and students were allowed to take notes and write drafts on their smartphones as well (Field notes).

Students also had the opportunity to be the first to try the school's new Chromebook lab. When the students first got to the lab, they had to wait until everyone got their username and password, which consisted of a long string of random letters and numbers, so it took a lot of time for all the students to log-in, even with all the credentials shown by the projector. The teacher tried to proceed in an orderly and controlled fashion, but by the time the teacher addressed the class about how to sign-into the Chromebooks, some students were already surfing the web (Field notes). The school was not equipped for the bandwidth demand of all the computers, so many students did not log on and worked around another Chromebook. There were 29 computers for 32 students, which also caused other students to work together with one device (Field notes).

Another way that students used technology to facilitate their learning was in using their phones as music players to listen to music individually with ear-buds while working. The teacher allowed this as it was the preferred way of working for some students.

Based on overheard conversations and informal conversations with the teacher, most of the students were planning on furthering their education (Field notes). In unstructured learning

activities, students were allowed to explore the websites of post-secondary schools, and I also overheard students discussing the process of getting letters of recommendation from their teachers. In structured learning activities, the teacher often attempted to make connections with the importance of the knowledge being learnt, and future schooling or career options. For example, the teacher would tell the students that their writing skills will be important for university papers, or that firefighters can't be late in their line of work (Field notes).

Although the teacher was usually permissive with career/school research and chatter, sometimes he wanted to ensure students would finish their wiki projects on time, so he would go around telling students to get back on-task (Field notes).

Discussion

Dimensions of Learner Control in Document Analyses

Conative. The Conative dimension of learner autonomy, as described in the literature review, concerns "the motivational-intentional forces that drive the learner to apply some determination (or 'vigour') to the act of learning" (Bouchard, 2011a, p.1). Because this dimension is about personality and learner traits, it is obvious that there is not much explicit mention of it in the description of the programme or the Personal Project. Although, there is clear indication of this dimension in the IB Learner Profile. The IB learner profile details the attributes of the learners that succeed in the IB programme. The 5 attributes that were defined in the above subsection are the ones that are specifically concerned with the conative dimension:

Inquirers: This attribute clearly indicates the love to learn independently and with others throughout life (GPP, 2014, p. -1). According, to Bouchard (2011a), the conative dimension is directly related to the will one has to learn, whether in a formal or informal setting (similar to

Candy, 1991). The aspect of control on whether to learn or not is addressed in the IB Learner, where it is stated that he/she does indeed loves and wants to learn.

Thinkers: This attribute concerns the conative dimension in the initiative one exercises in making reasoned, ethical decisions (GPP, 2014, p.-1). The concept of taking initiative relates to the motivational-intentional forces that are discussed by Bouchard (2011a) as part of the conative dimension. The creative aspect of this attribute would seem to go in the conative dimension as well.

Open-Minded: Like in Thinkers, this attribute involves critical thinking, which Brookfield (1985) considers an important component of SDL. I would argue that it belongs in the conative dimension of learner control. Furthermore, this attribute is defined as having the will to grow from experiences and differing points of view, which relates to the motivational-intentional determination of Bouchard (2009).

Risk-Takers: Independent and cooperative work, determination, and resilience in the face of change (GPP, 2014, p. -1) would all be learner traits that are conducive to learner autonomy, therefore part of the conative dimension.

Reflective: Awareness of one's strengths and weaknesses to support learning and personal development (GPP, 2014, p. -1) is clearly a personality trait of a self-directed learner. This awareness is necessary for the capacity to set appropriate learning objectives, which is part of the conative dimension of learner autonomy (Bouchard, 2009; 2010; 2011a; 2011b; 2014).

The IB Learner Profile is therefore reflective of the conative dimension of learner autonomy, which is necessary for SDL. Another aspect the IB programme that is also discussed in the GPP (2014) is the ATL skillset. The skillset has 5 components that are evidently conducive to the conative dimension of learner autonomy. Self-management and self-reflection

are obviously personality traits of an autonomous, self-directed learner (Candy, 1991). Gathering and critically analyzing information from social interactions or other resources are also personality traits of a self-directed learner (Brookfield, 1985).

In sum, both the IB Learner Profile, which encompasses the entire IB program, and the ATL, which is at the base of the personal project, are conducive to the conative dimension of Learner Control, as described by Bouchard (2009; 2010; 2011a; 2011b; 2014). It is worth emphasizing that this is in fact a mandatory project for all IBMYP students. The fact that it is mandatory may seem contradictory to SDL, but not all mandatory learning projects are devoid of control in the conative dimension. For example, a student that is motivated to receive IBMYP certification may not be particularly motivated to complete the Personal Project, but the ultimate goal of certification motivates the student to complete the Personal Project.

Algorithmic. According to Bouchard (2011a), the algorithmic dimension of learner control involves

> Control over the aspects of learning usually taken over by a teacher or by a managed learning environment. They include defining learning goals, deciding on a learning sequence, choosing a workable sequencing and pacing of learning activities, and selecting learning resources. (Hrimech & Bouchard, 1998, in Bouchard, 2011a, p. 1)

Indeed, as stated above, many aspects of this dimension or in the control of the teacher, the school, or the IB organization itself. Programme goals and objectives are delineated clearly in the brochure (IBMYP, 2014) by the IB organization. The pacing and daily schedules are determined by the school, and the learning activities are planned by the teacher. Other than the option of choosing 6 among 8 elective classes in secondary 4 and 5, the algorithmic dimension of learner control is not present, or not evident in the IBMYP (2014) brochure. On the other hand, the Personal Project offers a chance for learners to have some control in this dimension. Although within defined parameters of the GPP (2014), students get the opportunity to choose a

goal, and determine the best way to reach said goal, but within a timeframe that is chosen by the IBMYP (GPP. 2014). Furthermore, the steps by which a student must reach his/her goal are clearly stated, and proof of compliance with these steps is required in the process journal.

The Personal Project is therefore somewhat conducive to the algorithmic dimension of learner autonomy. It seems like it is a way of showing students how to have control of their learning process, rather than simply allowing for complete control by the student. Considering the lack of learner autonomy throughout formal schooling, this is probably extremely helpful for students that are used to having explicit material to study and repeat on a test.

Semiotic. The semiotic dimension of learner autonomy refers to the medium one chooses to facilitate their learning process. For example, one could use social media, hypertexts, print, non-print, etc. (Bouchard, 2011a). Similarly to the algorithmic dimension, the IBMYP does not allow for much explicit learner control in this dimension. There are individual projects (such as the Personal Project) that allow some control over this aspect, but I believe the programme in general is made to be easily implemented in a traditional teacher-centered classroom setting.

With daily learning activities being primarily facilitated by classroom teachers, the amount of control in this dimension is directly related to the teaching practices of the teacher. In the IBMYP of any school, there could be one class that has a lot of control, and another that has none.

With regards to the Personal Project, there is quite a bit of learner control in this dimension. Students can present their goal/objective in any format, via any medium, and do the work to reach this objective via whichever medium is most appropriate.

In sum, there is a degree to which the IBMYP allows for learner control in the semiotic dimension, but, in general, it is variable depending on the classroom teacher.

Economic. The economic dimension of learner control concerns the cost-benefit ratio (and perceived ratio) of learning and formal accreditation (Bouchard, 2011a). The IBMYP programme in itself plays a part in this dimension because it is a programme for high achieving students that have the option of having less rigorous coursework in the regular stream, or more work (such as the Personal and Community projects) for more accreditation (the IBMYP certificate) in the IB programme. The only issue with stating that high school students have legitimate control over this dimension is that often students do what their parents tell them without questioning motives. For older high school students, control over this dimension is more probable because parents give them (or they simply have) more autonomy in their choices in life. For younger students, this dimension could be more problematic. The Personal Project does not have explicit mention of control in this dimension. Although, as mentioned, simply deciding to participate in this project, and the programme as a whole, is a form of economic control.

Dimensions of Learner Control in Observation

Conative. This dimension of learner control was definitely evident in some cases, questionable in others, and obviously absent at times as well. Before explaining what was observed in terms of behaviour, I want to comment on the energy of the classroom. The classroom had an energy that varied in intensity depending on many external factors. These factors included the weather, the time of day, the energy of the teacher, and many more. It was obvious that a beautiful sunny day increased the energy of the class, whereas a first period class usually had low energy. A similar finding can be found in Fenwick (1998), where she describes the concept of classroom energy and how teachers need to respond to this energy to promote learner engagement.

> The energy of the classroom was unpredictable, and largely produced by the mix of particular students in particular moods, positioning themselves in different ways to each

> other and the teacher according to the variety of intersubjective dramas being played out on any given day in the course of development. Teachers had to balance their charge to subvert and sublimate student energy towards societally-approved purposes, with their own sense of allowing adolescents to be, to act out and live through the reality of their moments without always framing this moment as deficient by comparison to a vision of the desired future. Teachers also worked not to squelch student energy, but to maintain its flow. Often this meant enlivening student energy, relaxing controls, and encouraging play. (Fenwick, 1998, p. 630)

This is important because some of the motivational-intentional determination by which a student completed tasks was influenced by the energy of the class. As it was described in the findings section, it is evident that the desired energy level for learner control in the conative dimension is generally high. Furthermore, there seemed to be more student motivation when the teacher worked with the energy (using humour and relatable anecdotes) instead of against it (absolute silence and teacher control over the classroom), like some substitute teachers.

Algorithmic. The algorithmic dimension of learner control, as Bouchard (2011a) states, is usually in the teacher's control in a formal education setting, which was mostly the case in my observation.

Whether structured or unstructured, most of the components of the algorithmic dimension were in the control of the teacher. In terms of pacing, students did have some control, both in structured and unstructured learning activities. However, the control on pacing that they did have was within a pre-determined timeframe decided by the teacher. For example, students were seldom asked if they wanted or needed to chat in a group for approximately 30 minutes, almost every class for 4 weeks, the teacher just allocated that time (whether it was necessary or not) for collaborative work, which is, as the teacher stated, one of the competencies of the IB programme (Field notes)

Semiotic. Students in my observation had some control in this dimension, but within the parameters of what the teacher was comfortable with. In unstructured learning activities, students

could surf the web and use the computers with quite a bit of freedom. Even In structured learning activities there was some control for the learner in the semiotic dimension, in that some students were using their smartphones to read their book.

The impact of the introduction of the Chromebook lab on the semiotic dimension of learner control is not yet entirely clear. It definitely has the potential to allow for learner control once teachers become familiar and comfortable with the technology, but for now the students seemed much more adept on how it all works. In the end, it turned out to be a quite less conducive to working in the regular computer labs, but it was the first time they tried out the equipment with students.

Economic. The limitation of this dimension in the context being studied is evident in the nature of formal schooling. Although, as stated previously, the mere presence of these students demonstrates some control in this dimension. Students could be in the regular education programme instead of the IB, or students could simply not be in school, as most of these students are probably at least 16 years old. So, there is recognition of the value of the learning that is occurring. This is also evident in the way most of the students spoke about the future and the process of applying to schools for the following school year.

The students were at times allowed to use unstructured time to look into college programs or employment, but, other times, the teacher asked students to focus on the task at hand. This demonstrates an acknowledgement for the need of control in the economic dimension of the learning process, but that some algorithmic components take precedence.

Summary of Learner Control

The conative dimension of learner control was present but incredibly variable. I found that the times when there was most control in this dimension was when there was a good energy in the classroom, and the teacher responded appropriately to the energy of the students. Using low energy times to work on clerical tasks, and high energy times to work on critical and creative tasks seemed to work best. The students seemed more motivated to work when they had the chance to be creative in their task, but were visibly less creative when the energy of the class was low. It is interesting that the high energies that high school teachers usually fight against (as shown by the behaviour of some substitute teachers), seem to be a necessary ingredient in helping students develop creative and critical thinking. Other than these instances of learner control in the conative dimension, being in a public high school environment entails some forfeit of this control. Creativity and criticality are, by nature, products of mostly unobstructed thinking, so the control over students that novice teachers strive for is indeed more for the benefit of the teacher than the students.

The algorithmic dimension of learner control in this IB classroom is also somewhat problematic. The IB programme structure is conducive to some control in this dimension, and the teacher did allow for some control in the way he facilitated the class as well; the issue is that the IB programme and this class are situated within an established public school institution. The school has rules, procedures, guidelines, and formats that simply go against the algorithmic control that the programme allows in the way it is conceived. The ambitious goals and descriptions given in the IB programme brochure (IBMYP, 2014) could be much more of a reality if the programme ran as a separate entity. The school bell, ministerial requirements, and policies on technology and discipline in the school tend to hinder the SDL inherent in the IB

programme. The Personal Project (GPP, 2014), which allows for quite a bit algorithmic control in the learning process, should be reproduced in all grade levels for public school and IB programme students alike. If more students had the experience of the Personal Project, I believe it could undo some of the negative effects that formal schooling has on a student's capacity to be self-directed in their learning after high school.

The semiotic dimension of learner control was somewhat present in the Personal Project and in the classroom. For the classroom, students could use the computers with a freedom that was limited to the comfort-level and understanding of the technology of the teacher. In this case, the teacher was very comfortable and open to using and learning about technology. The use of knowledge and social-based networks was therefore quite open for the students. The issue is that not all high school teachers have PhDs in Education and openness to the use of new technologies. This calls for a more aggressive professional development programme where teachers learn to use a critical approach in using technology. I believe it is the duty of a mindful teacher to stay in touch with the trends and innovations in the knowledge and social-based networks that the semiotic dimension is concerned with.

Whether it is by design or not, the economic dimension of learner control is clearly the one that is most lacking based on my research. Students want to know the value of the knowledge they are forced to learn in formal schooling years, but are often stuck in such strict algorithmic constraints that economic control is put aside. I believe that being in secondary 5, with having to make choices that will affect the rest of one's life, requires students to have more control in this dimension. How can we expect students to fully value and make the most of the almost free education provided in CEGEPs, when the main focus of most high school classrooms is to pass the upcoming test? Making information relevant for the lives and future of students, as

was done by the teacher, should be included in every learning activity. There are classes and workshops for career selection and counselling, but at least some aspects of economic control should be available as much as possible throughout the day and courses that students have to take. As for the other aspects of economic control, as in accommodating learning activities based on cost/value ratio, in the current system, this is up to the parents. Parents should impart their economic reasoning to their children so that they have some concept of the cost of an education as they go through the formal system.

These above-mentioned dimensions are, as stated earlier through the review of Bouchard (2009; 2010; 2011a; 2011b; 2014)'s work, directly related to the self-directed nature of a learning activity. Therefore, in fostering the control that students have in these dimensions, teachers, administrators, and policymakers could increase the self-direction in learning of their students, and better prepare them for the demands of post-secondary life.

Conclusion

The idea that today's youth are not capable or ready for SDL is a clear indication of how we let our experiences shape our reality. Most thinkers and theorists discussed in this study have gone through formal schooling; therefore surely relate school-aged instruction to a rigid curriculum, standardized tests, discipline, and other teacher-centered practices. This is why it is easy for them to discuss SDL as solely an adult concept, because, historically, there has been very little allowable learner control before post-secondary learning. I wish to argue that just because it has been this way, it does not need to remain this way. I imagine a formal education system where students are not bundled by age into a neatly organized classroom facing a purveyor of knowledge. Instead, I hope that children and teenagers could one day experience the excitement and fulfilment that adult learners live when they learn in an environment entirely (or

mostly) conducive to SDL. Youth learners that drop-out due to disinterest would be significantly reduced, and society would benefit from citizens that constantly and willingly improve their knowledge and skills. In my view, promoting SDL in youth is therefore for the benefit of the individual and of society as a whole.

The different specific needs that youth learners have in SDL are not entirely evident as a product of this study, but this research definitely acknowledges a new component in the study of group dynamics in SDL, which is the energy of the class. In my experience with adult learners, high energy is always preferable to facilitate discussion and critical thinking; why would it be any different with youth? I think that the difference in the way energy is expressed between age groups is the main factor that explains the fear some teachers have in working with high energy classrooms. In most cases, it is easier to control and subdue youth than it is to relate to their interests and use their energy in a constructive way. This discussion of classroom energy demands more questions to be answered: How does one accurately and specifically scale classroom energy? How is SDL affected by this energy? Should classroom energy be controlled by the teacher to promote more SDL? If so, is this still considered SDL? These are all questions that immediately arise after completing this study and I believe deserve to be looked into with much more depth.

To return to my initial research question: how is an IB classroom conducive to SDL? It is in many different ways and at variable degrees, due to the different personal and environmental factors at play. There is no decisive way to make an environment conducive to SDL, but rather a combination of factors that influence the degree of control a learner has in the four dimensions of learner autonomy. The factor that is most important is, I believe, the classroom teacher. A teacher that promotes SDL within the current structure of the education system can indeed make

a big difference in the experiences students have with learning. An open-minded teacher can show students that the curriculum is not the only purpose of schooling, but rather only a means to learning how to love learning.

Bouchard's four dimensions turned out to be an excellent assessment tool for SDL in the classroom. With this tool, it was found that the creative, social, and exploratory tendencies of secondary 5 students need to be taken into consideration by policymakers, administrators, and teachers, as they are directly related to the SDL of the students. In terms of suggestions, there are three that seem equally urgent and important. First, schools need to be updated and upgraded to reflect our technology-filled and networked society. It does not have to be through expensive investments, such as Smartboards that teachers don't know how to use, but simply by adding, for example, Quick Response (QR) codes to posters, or using a classroom management smartphone application that teachers and students can use in concert. Implementing technology is not just investing money in gadgets, but it is more about using technology in a creative and critical way to benefit the SDL of students. Also, as mentioned previously, teacher training needs to put more emphasis on keeping teachers abreast with new technological developments that could benefit their craft.

Second, there needs to be more collective studies of SDL, where groups of students are observed and qualitatively assessed based on the Bouchard model. I believe more group-oriented research in SDL is important because it would provide more relevant data for formal schooling policy-makers. Adult learners can learn individually and in small groups, whereas most school-aged learners are obligated learn in large groups over twelve years time without much consideration for SDL.

Finally, as mentioned previously, I believe that learning activities that allow more learner control, such as the IB Personal Project, should be imitated and mandatory throughout formal public education. These learning/teaching strategies are readily available online and even within the schools, so it would be an easy adaptation for QEP to implement.

I believe that the repercussions of facilitating SDL in school-aged students could only be positive, and should be that for which we thrive.

References

Bejot, D.D. (1981). The degree of self-directedness and the choices of learning methods as related to a Cooperative Extension program (Doctoral Dissertation, Iowa State University, 1981). *Dissertation Abstracts International, 42,* 2434A.

Bonham (1992). Major learning efforts: Recent research and future directions. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 48-54). Pennsylvania: Organization Design and Development, Inc.

Bouchard, P. (2009). Some factors to consider when designing semi-autonomous learning environments. *Electronic Journal of e-Learning, 7*(2), 93-100.

Bouchard, P (2010). *Learner control in networked learning environments,* in S. Downes, R. Kop and G. Siemens, "Personal Learning Environments". National Research Council of Canada / Athabaska University.

Bouchard, P.(2011a). *Self-directed learning and learner autonomy*, in S. Norbert (Ed.), The Encyclopaedia of the sciences of learning. New York: Springer Science and Business Media, LLC.

Bouchard, P. (2011b). Pedagogy without a teacher: What are the limits? *International Journal of Self-Directed Learning*,*9*(1), 13-22.

Bouchard, P. (2014). The problem of Learner Control in Networked Learning Environments. *International Journal of Learning and Technology vol. 15* no. 2, June, 2014. Journal of Literacy and Technology (JLT) – special lissue dedicated to Personal Learning Environments.

Brockett, R. G., & Hiemstra, R. (1991). *Self-direction in Adult Learning: Perspectives on Theory, Research, and Practice*. Routledge.

Brookfield, S. (1981). Independent adult learning. *Studies in Adult Education, 13*, 15-27

Brookfield, S. (1985). A critical definition of adult education. *Adult Education Quarterly, 36*(1), 44-49

Brookfield, S D (1986). Understanding and Facilitating Adult Learning. Jossey-Bass Publishers, San Francisco, California

Caffarella, R. S., & O'Donnell, J. M. (1987). Self-Directed Adult Learning: A Critical Paradigm Revisited. *Adult Education Quarterly*, *37*(4), 199–211.

Candy, P. C. (1991). *Self-direction for Lifelong Learning: A Comprehensive Guide to Theory and Practice*. John Wiley & Sons, Incorporated.

Candy, P. C. (1992) The Inquiring mind: a study of the adult who continues to learn. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 23-35). Pennsylvania: Organization Design and Development, Inc.

Caulley, D. N. (1983). *Document analysis in program evaluation. Evaluation and Program Planning,* Vol. *6*, pp. 19-29.

Chovanec, D. M. (1998). Self-directed learning: Highlighting the contradictions. In S. M. Scott, B. Spencer & A. M. Thomas (Eds.), *Learning for life: Canadian readings in adult education*, 300-312. Toronto, ON: Thompson Educational Publishing.

Cobb, J.E. (1978). Self-directed learning of prospective parents (Doctoral dissertation, Kansas State University, 1978). *Dissertation Abstracts International, 39,* 2684A

Confessore, G J, Confessore, S J (eds) (1992). Guideposts to Self-directed Learning. Organization Design and Development, Inc., Pennsylvania

Davis, Kingsley and Wilbert E. Moore. (1945). Some principles of stratification. *American Sociological Review*, *10* (2), 242-9

Delahaye, B. L. & Smith, H. E. (1995). The validity of the Learning Preference Assessment. *Adult Education Quarterly,* 45, 159-173.

Dewey, John. (1897: 1929). My Pedagogic Creed. *Journal of the National Education Association*, *vol. 18*-9, pp. 291-295.

Dewey, John. (1906: 2007). *The Child and the Curriculum*. Boston: Adamant Media Corp.

Durkheim, Émile. (1933). *The Division of Labor in Society*. Translated by George Simpson. New York: Macmillan

Durr, R. E. (1992). An examination of readiness for self-directed learning and selected personnel variables at a large midwestern electronics development and manufacturing corporation (Doctoral dissertation, Florida Atlantic University, 1992). *Dissertation Abstracts International, 53*, 1825.

Fenwick, T. (1998). Managing space, energy, and self: junior high teachers' experiences of classroom management. *Teaching and Teacher Education, Volume 14*, Issue 6, 1 August 1998, Pages 619-631.

Finestone, P. (1984). A construct validation of the Self-Directed Learning Readiness Scale with labour education participants (Doctoral dissertation, University of Toronto, 1984). *Dissertation Abstracts International, 46*, 5A.

Fournier & Kop. (2010). New dimensions to self-directed learning in an open networked learning environment. *International Journal for Self-Directed Learning, Vol. 7,* 2

Fox, R.D., & West, R. F. (1983). Personality traits and perceived benefits associated with different approaches of medical students to self-directed learning projects. *Proceedings of the Twenty-Fourth Annual Adult Education Research Conference,* 99-104.

Freire, P. (1970a). *Pedagogy of the Oppressed*. New York, Continuum.

Freire, P. (1970b). *Cultural action for freedom*. [Cambridge], Harvard educational review.

Freire, P. (1973). *Education for critical consciousness*. New York, Seabury Press.

Freire, P. (1975). *Conscientization*. Geneva, World Council of Churches.

Freire, P. (1976). *Education, the practice of freedom*. London, Writers and Readers Publishing Cooperative.

Government of Canada, S. D. C. (2014, August 11). *Learning:Drop-out rate / Indicators of Well-being in Canada*. Retrieved August 11, 2014, from http://www4.hrsdc.gc.ca/cv3@-eng.jsp?chrtid=1&checkall=on&sid=8&submit=Submit&fromind=1&iid=32&seriesid=1&seriesid=2&seriesid=3&seriesid=4&seriesid=5&seriesid=6&seriesid=7&seriesid=8&seriesid=9&seriesid=10&seriesid=11

Graeve, E. A. (1987). Patterns of self-directed learning of registered nurses (Doctoral dissertation, University of Minnesota, 1987). *Dissertation Abstracts International, 48*, 820.

Grow, G. O. (1991). Teaching Learners To Be Self-Directed. *Adult Education Quarterly*, *41*(3), 125–149.

Guglielmino, L. M. (1978). Development of the self-directed learning readiness scale. (Doctoral dissertation, University of Georgia, 1977). *Dissertation Abstracts International, 38*, 6467A.

Guglielmino, L. M. (1992) Understanding and facilitating adult learning. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 112-121). Pennsylvania: Organization Design and Development, Inc.

Guide to Personal Project (GPP), (2014). IB High School.

Hassan, A. J. (1981). An investigation of the learning projects of adults of high and low readiness for self-direction learning (Doctoral dissertation, Iowa State University, 1981). *Dissertation Abstracts International, 42*, 3838A-3839A.

Hiemstra, R. (1980). *Policy recommendations related to self-directed learning* (Occasional Paper #1). Syracuse, New York: Adult Education Program, Syracuse University.

Horkheimer (1931). The Present Situation of Social Philosophy and the Tasks of an Institute for Social Research. *Between Philosophy and Social Science: Selected Early Writings*, G. Hunter, M. Kramer and J. Torpey, (trans.), Cambridge, MA: MIT Press, 1993, pp. 1–14

Houle (1961). The Inquiring Mind. The University of Wisconsin Press, Madison, Wisconsin.

Houle (1984). *Patterns of learning.* San Francisco: Jossey-Bass.

International Baccalaureate Middle Years Programme (IBMYP), (2014). International Baccalaureate Organization. Retrieved from: http://www.ibo.org/myib/digitaltoolkit/files/brochures/IBMYP_EN.pdf

Kasworm (1992). The adult's learning projects: A fresh approach to theory and practice in adult learning, 2nd Edition. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 55-73). Pennsylvania: Organization Design and Development, Inc.

Knowles, M. S. (1975). *Self-Directed Learning: A Guide for Learners and Teachers.* Association Press.

Kop, R. & Bouchard, P. (2011). The role of adult educators in the age of Social Media, in M. Thomas (Ed.), *Digital Education*. London: Palgrave MacMillan.

Lavoie, R. (2007). *The Motivation Breakthrough: 6 Secrets to Turning On the Tuned-Out Child.* New York: Touchstone.

Lewin, K. (1951). *Field Theory in Social Science.* New York: Harper and Row.

Long, Huey B. (1982). Theoretical Foundations of Adult Education: Borrowings from Other Disciplines. Theory, Innovation, and Practice. *Andragogy*, *3*.

Long, Huey B. (1990). Psychological control in self-directed learning, *International Journal of Lifelong Education, 9:4*, 331-338.

Long, H. B. (1992). SDL: A guide for learners and teachers. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 36-47). Pennsylvania: Organization Design and Development, Inc.

Long, H. B. (1993). *Emerging perspectives of self-directed learning*. Research Center for Professional and Continuing Education: University of Oklahoma.

Long, H. B., & Agyekum, S. K. (1983). Guglielmino's Self-Directed Learning Readiness Scale: A validation study. *Higher Education, 12*, 77-87

Long, H. B., & Agyekum, S. K. (1984). Teacher ratings in the validation of Guglielmino's Self-Directed Learning Readiness Scale. *Higher Education, 13*, 709-715.

Long, H. B., & Associates (1996). *Current developments in self-directed learning* Classic Book Distributors, 4409 Balmoral Street, Norman, OK 73072.

McCune, S. K., & L. M. Guglielmino (1991). Validity generalization of the Self-Directed Learning Readiness Scale. In H. B. Long & Associates, *Self-directed learning: Consensus and conflict* (pp. 147-154) Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education.

MELS. (2013) *Chapter 1: A Curriculum for the 21st century*. Retrieved from the Ministere d'Education, Loisir et Sport website: http://www1.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/medias/en/1_QEP_Chap01.pdf

Mezirow, J. (1985). A critical theory of self-directed learning. In S. D. Brookfield (Ed.), *Self-directed learning: theory and practice* (New Directions for Continuing Education, No. 25). San Francisco: Jossey Bass.

Neill, A. S. (1960). *Summerhill: A radical approach to child rearing*. New York, NY: Hart Publishing.

Oddi. (1984). Development of an instrument to measure self-directed continuing learning (Doctoral dissertation, Northern Illinois University, 1984). *Dissertation Abstracts International, 46,* 49A.

Oddi. (1986). Development and validation of an instrument to identify self-directed continuing learners. *Adults Education Quarterly, 36,* 97-107.

Oddi. (1987). Perspectives on Self-Directed Learning. *Adult Education Quarterly, 38*: 21, 21-31

O'Donnell, A. M., D'Amico, M., Schmid, R. F., Reeve, J., & Smith, J. K. (2007). *Educational psychology: Reflection for action* (Canadian edition ed.). Mississauga, ON: John Wiley and Sons Canada.

O'Donnell (1992). Learning without a teacher: A study of tasks and assistance during adult self-teaching projects. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 74-84). Pennsylvania: Organization Design and Development, Inc.

Penland, P. R. (1981). Relationship of selected demographic characteristics of adult learners and academic success in a self-directed learning program (Doctoral dissertation, University of Cincinnati, 1980). *Dissertaion Abstracts International, 41,* 900A.

Piaget, J. (1954). The development of object concept: The construction of reality in the child (pp. 3-96). New York: Basic Books.

Posner, F. G. (1990). A study of self-directed learning, perceived competence and personal orientation among students in an open alternative high school (Doctoral dissertation, University of Denver, 1989). *Dissertation Abstracts International, 51*, 813.

Pring, R. (2000a). The 'false dualism' of educational research. *Journal of Philosophy of Education, 34*(2), 247-260.

Pring, R. (2000b). Philosophy of educational research. London; New York: Continuum.

Reed, A.W. (1980). Relationship of selected demographic characteristics of adult learners and academic success in a self-directed learning program (Doctoral dissertation, University of Cincinnati, 1980). *Dissertation Abstracts International, 41,* 900A.

Rousseau, J. (1979: 1762). *Emile: Or, on education* [Émile. English]. New York: Basic Books.

Russell, J. W. (1988). Learner preference for structure, self-directed learning readiness and instructional methods (Doctoral dissertation, University of Missouri, 1988). *Dissertation Abstracts International, 49*, 1689.

School (2014). IB high school official website.

Sheppard, T. (2002). The learning journey. *Navy Supply Corps Newsletter*. June-August, 2002.

Skaggs, B.J. (1981). The relationship between involvement of professional nurses in self-directed learning activities, loci of control, and readiness of self-directed learning measures (Doctoral dissertation, University of Texas at Austin, 1981). *Dissertation Abstracts International, 42,* 1906A.

Smyth, J., & McInerney, P. (2012). Sculpting a "social space" for re-engaging disengaged "disadvantaged" young people with learning. *Journal of Educational Administration and History*, *44*(3), 187–201.

Snitzer, H. (1964). *Summerhill, a loving world : In photographs*. New York: Macmillan.

Spear, G. E., & Mocker, D. W. (1984). The Organizing Circumstance: Environmental Determinants in Self-Directed Learning. *Adult Education Quarterly*, *35*(1), 1–10.

Suter, W. N. (2012). Introduction to educational research: A critical thinking approach (2nd ed.). Thousand Oaks, Calif.: Sage.

Thomas, P. (1991). Jean-Jacques Rousseau, Sexist?. *Feminist Studies, 17*(2), 195.

Tough, A (1967). Learning without a teacher. A study of tasks and assistance during adult self-teaching projects. *Education Research Series,* No. 3. Toronto, Ontario: Ontario Institute for Studies in Education.

Tough, A. (1968). *Why adults learn: A study of the major reasons for beginning and continuing a learning projects.* Toronto, Ontario: Ontario Institute for Studies in Education.

Tough, A. (1971). *The adult's learning project: A fresh approach to theory and practice in adult education.* Toronto, Ontario: Ontario Institute for Studies in Education.

Tough, A. (1978). Major learning efforts: Recent research and future directions. *Adult Education, 28,* 250-263.

Tough, A (1979). The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning, 2nd ed. University Associates (Learning Concepts), San Diego, and Ontario Institute for Studies in Education, Toronto, Ontario.

Tough, A. (1981). *Learning without a teacher: A study of tasks and assistance during adult self-teaching projects.*. Toronto, Ontario: Ontario Institute for Studies in Education.

Tough, A. (1982). *Intentional changes: A fresh approach to helping people change.* Chicago, IL: Follett.

Tremblay (1992). SDL: Emerging theory and practice. In G.J. Confessore & S.J. Confessore (eds.) *Guideposts to self-directed learning: Expert commentary on essential concepts* (pp. 150-164). Pennsylvania: Organization Design and Development, Inc.

Wotherspoon, T. (2013). The sociology of education in canada (4th ed.). Don Mills, Ont.: Oxford University Press Canada.

Appendix A

Final Paper Rubric: Given by classroom teacher.

(Transcribed on following page due to lack of clarity of original)

Revised Rubrics

(Competency)

Profil

inferences and compelling explanations of ideas with well-defined references to the text.

inferences and comprehensive explanations of ideas with pertinent references to the text.

commonplace inferences and acceptable explanations of ideas with general references to the text.

(Not all indicators need to be present in the response)

Indicators that support the profile

The reader draws in-depth meaning from the text through perceptive interpretations that go beyond the text and illuminate other familiar life circumstances or contexts.
S/he links his/her own personal reactions to specific aspects of the text by elaborating on how those aspects shape his/her own understanding.
S/he forms a well-reasoned opinion about the overall impact of the text.
S/he evaluates/critiques the impact of codes and conventions on the meaning of the text. S/he makes significant associations between the text and other issues, events and/or texts.

The reader draws detailed meaning through thoughtful interpretations based on ideas developed from the text.
S/he links his/her own personal reactions to specific aspects of the text by describing their effect on his/her own understanding.
S/he forms a sound opinion about the overall impact of the text.
S/he discusses the impact of codes and conventions on the meaning of the text. S/he makes convincing associations between the text and other issues, events and/or texts.

The reader draws general meaning through basic interpretations linked to ideas within the text. S/he links his/her own personal reactions to specific aspects of the text by referring to their effect on his/her own understanding.
S/he forms a sensible opinion about the overall impact of the text. S/he identifies codes and conventions and hints at their impact on the meaning of the text. S/he makes obvious associations between the text and other issues, events and/or texts.

Score	5+	5	5-	4+	4	4-	3+	3	3-
	100%	95%	90%	85%	80%	75%	70%	65%	60%

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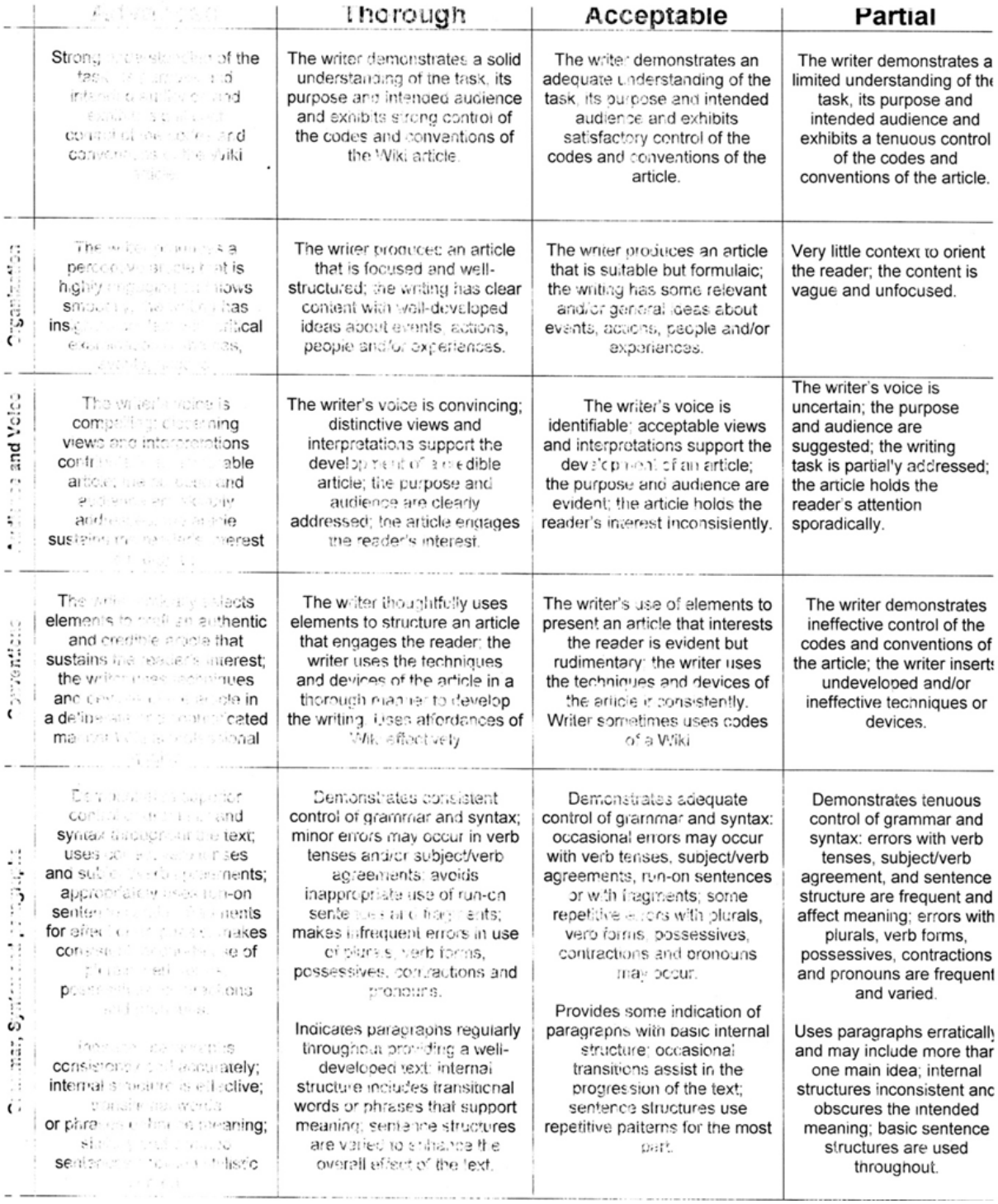
Québec

	Level 5 - Advanced			Level 4 - Thorough			Level 3 - Acceptable		
Profile	The reader demonstrates an extensive understanding of the text through insightful interpretations, discerning inferences and compelling explanations of ideas with well-defined references to the text.			The reader demonstrates a solid understanding of the text through thorough interpretations, relevant inferences and comprehensive explanations of ideas with pertinent references to the text.			The reader demonstrates adequate understanding of the text through straight-forward interpretations, commonplace inferences and acceptable explanations of ideas with general references to the text.		
	(Not all indicators need to be present in the response)								
Indicators that support the profile.	The reader draws indepth meaning from the text through perceptive interpretations that go beyond the text and illuminate other familiar life circumstances or contexts. S/he links his/her own personal reactions to specific aspects of the text by elaborating on how those aspects shape his/her own understanding. S/he forms a well-reasoned opinion about the overall impact of the text. S/he evaluates/critiques the impact of codes and conventions on the meaning of the text. S/he makes significant associations between the text and other issues, events and/or texts.			The reader draws detailed meaning through thoughtful interpretations based on ideas developed from the text. S/he links his/her own personal reactions to specific aspects of the text by describing their effect on his/her own understanding. S/he forms a sound opinion about the overall impact of the text. S/he discusses the impact of codes and conventions on the meaning of the text. S/he makes convincing associations between the text and other issues, events and/or texts.			The reader draws general meaning through basic interpretations linked to ideas within the text. S/he links his/her own personal reactions to specific aspects of the text by referring to their effect on his/her own understanding S/he forms a sensible opinion about the overall impact of the text. S/he identifies codes and conventions and hints at their impact on the meaning of the text. S/he makes obvious associations between the text and other issues, events and/or texts.		
	5+ 100%	5 95%	5- 90%	4+ 85%	4 80%	4- 75%	3+ 70%	3 65%	3- 60%

Appendix B

Wiki Project Rubric – Given by classroom teacher.

(Partially transcribed on following page below due to lack of clarity of original)



		Thorough	Acceptable	Partial
	Strong [illegible] of the task [illegible] and [illegible] and [illegible] control [illegible] and conventions [illegible] Wiki [illegible]	The writer demonstrates a solid understanding of the task, its purpose and intended audience and exhibits strong control of the codes and conventions of the Wiki article.	The writer demonstrates an adequate understanding of the task, its purpose and intended audience and exhibits satisfactory control of the codes and conventions of the article.	The writer demonstrates a limited understanding of the task, its purpose and intended audience and exhibits a tenuous control of the codes and conventions of the article.
Organization	The [illegible] a perceptive [illegible] that is highly [illegible] flows smoothly [illegible] has insightful [illegible] critical [illegible]	The writer produced an article that is focused and well-structured; the writing has clear content with well-developed ideas about events, actions, people and/or experiences.	The writer produces an article that is suitable but formulaic; the writing has some relevant and/or general ideas about events, actions, people and/or experiences.	Very little context to orient the reader; the content is vague and unfocused.
and Voice	The writer's voice is compelling; distinctive views and interpretations confirm [illegible] able article; [illegible] and [illegible] and [illegible] sustain [illegible] interest	The writer's voice is convincing; distinctive views and interpretations support the development of a credible article; the purpose and audience are clearly addressed; the article engages the reader's interest.	The writer's voice is identifiable; acceptable views and interpretations support the development of an article; the purpose and audience are evident; the article holds the reader's interest inconsistently.	The writer's voice is uncertain; the purpose and audience are suggested; the writing task is partially addressed; the article holds the reader's attention sporadically.
	The [illegible] selects elements to craft an authentic and credible article that sustains the reader's interest; the writer uses techniques and [illegible] to create in a definite [illegible] sophisticated manner [illegible]	The writer thoughtfully uses elements to structure an article that engages the reader; the writer uses the techniques and devices of the article in a thorough manner to develop the writing. Uses affordances of Wiki effectively	The writer's use of elements to present an article that interests the reader is evident but rudimentary; the writer uses the techniques and devices of the article inconsistently. Writer sometimes uses codes of a Wiki	The writer demonstrates ineffective control of the codes and conventions of the article; the writer inserts undeveloped and/or ineffective techniques or devices.
Grammar, Syntax and Mechanics	Demonstrates [illegible] control [illegible] and syntax throughout the text; uses [illegible] tenses and subject/verb agreements; appropriately uses run-on sentences [illegible] for effect; [illegible] makes consistent [illegible] use of [illegible] possessives [illegible] contractions [illegible] consistently and accurately; internal [illegible] is effective; [illegible] or plural [illegible] meaning; [illegible] sentences [illegible] stylistic	Demonstrates consistent control of grammar and syntax; minor errors may occur in verb tenses and/or subject/verb agreements; avoids inappropriate use of run-on sentences or fragments; makes infrequent errors in use of plurals, verb forms, possessives, contractions and pronouns. Indicates paragraphs regularly throughout providing a well-developed text; internal structure includes transitional words or phrases that support meaning; sentence structures are varied to enhance the overall effect of the text.	Demonstrates adequate control of grammar and syntax; occasional errors may occur with verb tenses, subject/verb agreements, run-on sentences or with fragments; some repetitive errors with plurals, verb forms, possessives, contractions and pronouns may occur. Provides some indication of paragraphs with basic internal structure; occasional transitions assist in the progression of the text; sentence structures use repetitive patterns for the most part.	Demonstrates tenuous control of grammar and syntax; errors with verb tenses, subject/verb agreement, and sentence structure are frequent and affect meaning; errors with plurals, verb forms, possessives, contractions and pronouns are frequent and varied. Uses paragraphs erratically and may include more than one main idea; internal structures inconsistent and obscures the intended meaning; basic sentence structures are used throughout.

	Advanced	Thorough	Acceptable
	Strong understanding of the task, its purpose and intended audience and exhibits significant control of the codes and conventions of the wiki article.	The writer demonstrates a solid understanding of the task, its purpose and intended audience and exhibits strong control of the codes and conventions of the Wiki article.	The writer demonstrates an adequate understanding of the task, its purpose and intended audience and exhibits satisfactory control of the codes and conventions of the article.
ORGANIZATION	The writer produces a perceptive article that is highly engaging and flows smoothly, the writing has insightful content with critical examinations of themes, events, actions.	The writer produces an article that is focused and well-structured; the writing has clear content with well-developed ideas about of events, actions, people and/or experiences.	The writer produces an article that is suitable but formulaic; the writing has some relevant and/or general ideas about events, actions, people and/or experiences.
AUDIENCE and Voice	The writer's voice is compelling; discerning views and interpretations contribute to a memorable article; the purpose and audience are skillfully addressed; the article sustains the reader's interest throughout.	The writer's voice is convincing; distinctive views and interpretations support the development of a credible article; the purpose and audience are clearly addressed; the article engages the reader's interest throughout.	The writer's voice is identifiable; acceptable views and interpretations support the development of an article; the purpose and audience are evident; the article holds the reader's interest inconsistently.
CONVENTIONS	The writer critically selects elements to craft an authentic and credible article that sustains the reader's interest; the writer uses techniques and devices of the article in a deliberate and sophisticated manner. Wiki is professional quality.	The writer thoughtfully uses elements to structure an article that engages the reader; the writer uses techniques and devices of the article in a thorough manner to develop the writing. Uses affordances of Wiki effectively.	The writer's use of elements to present an article that interests the reader is evident but rudimentary; the writer uses the techniques and devices of the article inconsistently. Writer sometimes uses codes of a wiki.
GRAMMAR, SYNTAX	Demonstrates superior control of grammar and syntax throughout the text; uses correct verb tenses and subject/verb agreements; appropriately uses run-on sentences and/or fragments for effect or emphasis; makes consistent, accurate use of plurals, verb forms, possessives, contractions, and pronouns. Indicates paragraphs consistently and accurately;	Demonstrates consistent control of grammar and syntax; Minor errors may occur in verb tenses and subject/verb agreements; avoids inappropriate use of run-on sentences and/or fragments; makes infrequent errors in use of plurals, verb forms, possessives, contractions, and pronouns. Indicates paragraphs regurlarly throughout	Demonstrates adequate control of grammar and syntax; Occasional errors may occur in verb tenses and subject/verb agreements, run-on sentences or with fragments; some repetitive errors with plurals, verb forms, possessives, contractions and pronouns may occur. Provides some indication of paragraphs with basic

and Paragraphs	internal structure is effective; transitional words or phrases enhance meaning; skillfully crafts varied sentences showing stylistic control.	providing a well-developed text; internal structure includes transitional words or phrases and support meaning; sentence structures are varied to enhance the overall effect of the text.	internal structure; occasional transitions assist in the progression of the text; sentence structures use repetitive patterns for the most part.