

Adolescents' Motivational Support in School: A Self-Determination Theory Perspective

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Abstract: Presently, many issues question the capacity of Québec's educational institutions to wholly fulfill their social mission. Those challenges include a relatively high school dropout rate, a low literacy level among the adult population, and a constant increase in the number of students with disabilities, social maladjustments or learning difficulties. Sustaining adolescents' academic motivation is a concern relating to each of the mentioned issues affecting Québec's high schools nowadays. This paper addresses the following question: how can school agents and educational policies best support the adolescents' motivation in school? To answer this question, I use the theoretical framework of the self-determination theory (SDT), a macrotheory of the human motivation which stipulates that the respect of basic psychological needs (autonomy, competence and relatedness) nourish students' intrinsic motivation, to analyze a research-based intervention program that aim to enhance students' academic motivation, and Québec Education Program (QEP) recommendations on this point. The conclusions of this article invites scholars and governments to investigate educational models prioritizing the fulfillment of the youths' basic psychological needs according to SDT.

Keywords: Academic Motivation, Education Policy, School Environments, Self-Determination Theory, Student Engagement

Introduction

In Québec, Article 36 of the *Education Act* describes schools as educational institutions which fulfill a threefold mission: to impart knowledge to students; to foster their social development; and to give them qualifications (Québec, 2016a, p. 17). Presently, educational institutions in the province face a number of challenges related to their capacity to fully embrace this mission. Some of these challenges include a relatively high school dropout rate (15.3% in 2012-2013 (Québec, 2014)), a low literacy level among the adult population (19% of 16-65 years old Quebecers have a proficiency level of literacy of 1 or below, and 34.3% of level 2 (Statistics Canada, 2012))¹, and an increase in the number of students with disabilities, social maladjustments or learning difficulties (12.9% to 19.1% from 1999 to 2013 (Québec, 2009, p. 8; 2016b, p. 30-33)). To allow schools to properly achieve their social mission, educational policy makers and school agents must address the aforementioned issues, which affect society far beyond the school walls. To do so, it is essential to consider the sustainment of students' academic motivation, particularly in the case of adolescents (Lepper, Corpus, & Iyengar, 2005), who face many challenges in Québec's schools currently. In this paper, I address the following question: how can school agents and educational policies best support the adolescent's motivation in a school context?

I begin the article with a description of self-determination theory (SDT), a macrotheory of the human motivation, which is the theoretical framework of this paper. Then, I draw on insights from applied studies using this theoretical perspective to inform my SDT-based critical review of both Québec Education Program's recommendations regarding adolescents' motivation enhancement in school, and an intervention program. Finally, I suggest some avenues to scholars and governments regarding the investigation of educational institution models prioritizing the fulfillment of students' basic psychological needs recognized by SDT, and thus allowing the experience of intrinsic motivation.

¹ Literacy has been described as "the ability to understand, evaluate, use and engage with written texts to participate in society, achieve one's goals, and develop one's knowledge and potential" (OECD, 2013, p. 61). The scale used by the OECD's *Programme for the International Assessment of Adult Competencies* (PIAAC) (the source of Statistics Canada's data) to assess proficiency in literacy has 5 levels, the fifth being the highest. In all countries taking part in this study, individuals with low literacy skills (under level 3) are more likely to report poor health, to be unemployed or to have a low income, to believe that they have little impact on political processes, and to not participate in associative or volunteer activities.

What is motivation?

Over the last forty years, a rich body of theoretical and experimental work on the nature of motivation and its implication in students' academic and social functioning has developed (Eccles & Wigfield, 2002; Wigfield & Wentzel, 2007). While there are many definitions of motivation, this concept is often understood as the state of wanting to perform a specific activity in a given situation, and is often defined as either intrinsic or extrinsic (Schiefele, 2009). Motivation is central to understanding adolescents' success (or lack of success) in school because it refers to the energy they bring to the tasks, beliefs, values and goals that determine which activities they devote themselves to, their persistence in achieving them, and the standards they set to determine when a task is completed (Wentzel & Wigfield, 2009). While earlier research focused on individual characteristics (e.g., goals, standards for performance, values, interest), more recent studies included frameworks specifying developmental, ecological and socialization factors (e.g., parent, peer and teacher influences on student motivation) (Wentzel & Wigfield, 2009). The interest is now about mixing those two perspectives on human motivation. One theory that explores the important interplay between intrinsic and extrinsic motivation is self-determination theory (SDT).

Self-determination Theory

Self-determination theory (SDT) is built on the premise that human nature comprises a robust propensity for learning (Ryan & Deci, 2002, 2009). SDT discusses the inherent motivation to learn in terms of a dual tendency towards intrinsic motivation and internalization of external regulation. This strong theoretical framework is applied in many disciplines (e.g., psychopathology, neurobiology, marketing) including education, and many applied studies in this field offer critical insights to analyze current educational practices in Québec's schools. This theory suggests that individuals aim for psychological growth and integration of cultural knowledge and practices. Thus, humans have an innate tendency to exercise and elaborate their interests, to seek challenges, to discover new perspectives, and to actively internalize and transform cultural practices; it is the stretch of capacities and the expression of talents that allow the actualization of the human potential. The foundations of this theory reside in a dialectical view which concerns the interactions between an active, integrating human nature, and the social contexts that either nurture or thwart intrinsic and extrinsic tendencies (in the worst case resulting in amotivation), which make it particularly relevant to guide educational practices and policies. In SDT, the descriptions of environments that support or hinder effective or healthy functioning are based on the concept of basic psychological needs.

As formulated and outlined in Deci and Ryan (2012) and Ryan and Deci (2002), SDT maintains that universal basic psychological needs – competence, relatedness and autonomy – play the role of necessary nutrients for the growth and wellbeing of one's personality and cognitive structures; their fulfillment resulting in a more intrinsically motivated person. In SDT, competence is defined as a sense of confidence and efficacy in the negotiation of one's external and internal environments, rather than an attained skill or capability. In this way, the need for competence leads people to seek challenges which are optimal for their capacities and to continuously attempt to maintain and enhance their skills through their activities. The need for relatedness concerns a feeling of connection with others, associated with a reciprocal caring attitude and a sense of belonging both with other individuals and with a community. Finally, the need to feel autonomous refers to being the perceived origin of an individual's behavior; that is, acting from interest and integrated values (explained below). The (lack of) response to those basic psychological needs in a given environment, situation or activity can impact the degree of relative autonomy experienced by an individual.

Self-determination Continuum

SDT differentiates intrinsic motivation, extrinsic motivation and amotivation, which are presented in this section. This theory proposes a taxonomy of four types of extrinsic motivation differing in the degree to which they are experienced as autonomous (i.e., self-determined).

Figure 1. The SDT continuum of relative autonomy

Amotivation	Extrinsic Motivation				Intrinsic Motivation
Nonregulation	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	Intrinsic Regulation
Lack of Motivation	Controlled Motivation		Autonomous Motivation		
<i>Lowest Relative Autonomy</i>	←—————→				<i>Highest Relative Autonomy</i>

Source: (Ryan & Deci, 2009, p. 177)²

As shown in Figure 1, intrinsically-motivated behaviors are based on the inherent satisfaction of the behavior by itself, being noninstrumentally focused. Intrinsic motivation is a prototype of self-determined activity; when people are intrinsically motivated, they engage in activities freely, as they are driven by interest and enjoyment. Play and active learning, when undertaken because of their inherently absorbing and pleasant dimensions, are examples of intrinsically-motivated activities. Although these activities result in educational outcomes, they are not executed for these purposes; it is a side benefit that people learn, grow, and create, while enjoying those activities. Intrinsic motivation is considered to be the most beneficial form of motivation for students' learning and achievement (Lepper et al., 2005; Taylor et al., 2014). However, since both intrinsic and extrinsic motivations coexist in school contexts, it is important to consider how much intrinsic and extrinsic motivation students display. Adolescents might seek out activities which they find inherently pleasurable while simultaneously paying attention to their extrinsic consequences (e.g., hosting a show at the school radio to present music class' projects) (Lepper et al., 2005). So the question is: how can autonomous motivation can be sustained in a school context?

Not all school-related activities are particularly interesting or enjoyable. Still, students will do them in an autonomously motivated fashion (e.g., cleaning the classroom, studying for an exam, exercising). SDT describes the process of assimilation of these nonintrinsically motivated activities and values under the concept of internalization (Ryan & Deci, 2009). It maintains that students of any age in a context in which they feel secure, important, and cared for, want to internalize the knowledge and practices of those around them, in a deeper way than their mere adoption. Thus, the feeling of relatedness combined with support for autonomy and competence allow the internalization of extrinsically motivated behaviors to occur (Ryan & Deci, 2002; Ryan, Deci, Grolnick, & La Guardia, 2006). Such behaviors are typically prompted by significant others (such as teachers) either with a request, the offer of a reward or the fact that the others value an activity by performing it regularly (Ryan & Deci, 2002). Then, students' identification with the value of the target behavior helps to accept it as their own, and therefore allows feelings of volition and self-endorsement (Ryan & Deci, 2009). Thereafter, the identification leads to the integration of what is experienced, providing the basis for a coherent sense of self; it allows individuals to feel autonomous while engaging in extrinsically motivated behaviors (Ryan & Deci, 2002; Ryan et al., 2006).

The "controlled motivation" part of the continuum features the introjected and the external regulations (see Figure 1, above). Introjected regulation refers to an external regulation which has been partly internalized, but is not truly accepted by one's own, or integrated with the self (Ryan & Deci, 2002). Behaviors resulting from this type of regulation are performed to avoid guilt and shame, or to attain ego enhancements and feeling of worth. The external regulation represents the classic case of being motivated to obtain rewards or avoid punishment. The external regulation type is central to the behaviorist theory and its behavior modification programs, which feature a heavy reliance on extrinsic incentives.

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Finally, amotivation is the state of lacking the intention to act, which means not acting at all or going through the motion with no sense of intending to do what one is doing (Ryan & Deci, 2002). It occurs either because individuals are unable to achieve a desired outcome, or because they do not value the activity and/or its outcome (Ryan & Deci, 2002).

Some Cues from Empirical Research Inspired by SDT

Applied researchers have demonstrated the lasting effects of interventions based on motivational concepts to enhance students' engagement in learning activities, academic performance, school attendance, graduation rates and social competences (Wentzel & Wigfield, 2009). Empirical work using SDT supports two main conclusions: autonomously-motivated students thrive in educational settings, and all students benefit when their teachers support their autonomy (Reeve, 2002), both of which are important aspects to consider to answer the question being addressed in this paper. These studies provide systemic recommendations to allow both students and teachers to develop meaningful relationships as well as greater competence and autonomy with regard to their learning and teaching (Connell & Klem, 2000; Ryan & Deci, 2009).

Applied studies in the field of SDT found that tangible rewards – whether concrete, such as money, or symbolic, such as good player awards – as well as negative feedback decrease intrinsic motivation, whereas positive feedback enhances this type of motivation (Ryan & Deci, 2002). A meta-analysis reviewing 128 experiments confirmed these correlations (Deci, Koestner, & Ryan, 1999). That said, the authors specified that rewards have two dimensions: an informational dimension conveying self-determined competence which enhances intrinsic motivation, and a controlling dimension, prompting an external perceived locus of causality, and thus undermining intrinsic motivation. Moreover, many experimental studies have focused on the undermining effect of controlling measures such as threats of punishment, deadlines, imposed goals, surveillance, competition and evaluation on intrinsic motivation (Ryan & Deci, 2002)³. It has been found that pressure towards performance associated with the presence of grades also tends to weaken intrinsic motivation (Ryan & Deci, 2009). All these measures can, nevertheless, increase extrinsic types of motivation. Applied researches using SDT have shown many advantages to being autonomously motivated instead of controlled, including more volitional persistence in the face of challenges, better relationships in one's social groups, more effective performance, and greater health and wellbeing (Ryan & Deci, 2002).

There is also evidence that students perform well, learn conceptually and stay in school because their teachers support their autonomy rather than control their behaviors (Jang, Reeve, & Deci, 2010; Reeve, 2002). Autonomy-supportive teachers distinguish themselves mainly by their style of engaging with their students. They listen more, avoid criticism, praise mastery, respond to student-generated questions, and communicate statements rich in empathy and perspective-taking (Reeve, 2002). Autonomy-supportive educators afford time for students to work independently and find solutions to their (educational) problems, instead of directly telling them the right answers (Reeve, 2002; Reeve & Jang, 2006). These educators support intrinsic motivation and internalization by providing opportunities to their students to take initiatives in directing aspects of their own learning, and by giving them choices and options; that is to say by encouraging them to take greater responsibility for their own education (Patall, Cooper, & Robinson, 2008; Reeve, 2002; Ryan & Deci, 2002, 2009). That said, empirical research has shown that students' collective classroom engagement is stronger when teachers support autonomy while maintaining a certain leadership (Hyunghim, Johnmarshall, & Deci, 2010). This leadership is expressed via the settlement of educational tasks, the explanation of expectations and instructions, the offer of helpful guidance when necessary, and the provision of positive feedback (Hyunghim et al., 2010). Giving students meaningful rationales for required tasks or lessons also remains an important aspect of a structured autonomy-supportive student-teacher relationship (Reeve, 2002).

There are some suggestions from tested educational policy reforms based on SDT principles, which recognize that educational institutions should promote basic needs satisfaction for teachers and students, on

³ For the references of the studies associated with each topic, refer to Ryan & Deci (2002), p. 12.

how to enhance their autonomous motivation (Ryan & Deci, 2009). These suggestions comprise three critical features: to divide the large schools, especially high schools, into smaller learning communities that stay together over time; to establish a system that associates a teacher with 15 to 18 students to build school-family relationships that are nurtured through the years; and to promote professional development to help improve teaching by making the instruction, materials, and assignments more engaging and challenging (Connell & Klem, 2000; Ryan & Deci, 2009).

Review of Current Practices

Over the last few decades, researchers gained a great deal of knowledge about how teachers can influence students' motivation in a positive way, and child-based, classroom-based and school-based interventions have been designed to help them to do so (Wigfield & Wentzel, 2007). In SDT, interventions that aim to increase students' academic engagement should satisfy basic psychological needs (Ratelle & Duchesne, 2014). Below is an SDT-based critique of Québec Education Program's recommendations and current research-based interventions related to the topic of adolescents' motivation in a school context.

Québec Education Program

The Québec Education Program (QEP) is a competency-based curriculum. Competency is defined as the ability to act effectively by mobilizing a range of resources (Boutin, 2000; Québec, 2007). The QEP emphasizes that competencies are not taught in the traditional sense of the term, but developed by the students themselves, with guidance and support from the teachers. The role of the educator is to foster the students' autonomy by teaching them to recognize resources that can help them, by enabling them to research new resources, and by supporting their choice and use of these resources. In this context, teachers play their expert function, both on their particular subject and on learning, by regularly placing students in active situations in which they have to solve problems or carry out projects, and by giving students the benefit of their knowledge (Québec, 2007). The QEP suggests that it is useful to often have students take part in situations that are less goal-oriented, such as those involving exploration and observation. Educators are asked to enable young people to identify the errors they have made in order to regulate their learning processes autonomously, and by judging the effectiveness of their strategies. Giving students responsibility for their learning plays an essential role in the reinforcement of their motivation and autonomy (Québec, 2007).

The QEP suggests various strategies to elicit students' interest and involvement (i.e., to enhance their intrinsic motivation and internalization), including:

- Start from the students' interest.
- Awaken their curiosity and encourage their interest in things that are new to them.
- Set tasks that cause a cognitive imbalance and present a challenge that students can meet.
- Provide situations they can see as useful and relevant. (...)
- Make the classroom a place of discussion and research and encourage cooperative work. (Québec, 2007, p. 20)

Activities that improve students' sense of a quality of their school life are also identified as enhancing their motivation because they have a positive effect on young people's feelings of belonging and perseverance (Québec, 2007). Finally, the Québec Education Program recognizes the importance of the collaboration with the parents, acknowledging them as being important in the sustainment of their teenager's motivation.

SDT critique of Québec Education Program

The practices recommended by the Québec Education Program (QEP) correspond to a large extent to self-determination theory (SDT) prescriptions regarding academic motivation (Larose et al., 2014). The competency-based curriculum encourages active learning through learning and evaluation situations (LES),

in which learners can assimilate and demonstrate contextualized knowledge. The LESs foster autonomy, perceived competence, and relatedness in different ways.

First, the QEP's advocates for teachers to be understood as facilitators, a standpoint that is not distant from the instructional guidance in autonomy-supportive teaching as described by applied SDT research. Québec's teachers are encouraged to allow students to play a more active role in their learning, and thus to develop their autonomy by finding their own solutions to different problems and by evaluating their learning process by themselves. Teachers' leadership role is expressed in the program, as they must teach lessons when necessary, and clearly communicate their expectations in order for particular objectives to be attained. To find a balance between autonomy and structure, the teachers are encouraged to organize projects based on the interests of the students; that is an acknowledgement of the power of intrinsic motivation. It is also relevant from an autonomy standpoint that the program invites teachers to let students take part in less goal-oriented activities; exploration is put forth as a great way to embody autonomy, to encourage students to take responsibility for their learning and to find new sources of interest.

Second, the need for competence can be fulfilled when students are regularly placed in active situations in which they have to solve actual problems because these problem-solving activities carry a large spectrum of skills, such as manual ones (e.g., cooking, building, fixing, and painting). The perceived competence is reinforced when the students acknowledge the utility of a learning situation in "real life", and that they can see how to transfer skills and knowledge they are mastering in school into authentic situations. Another way the QEP contributes to the fulfillment of students' need for perceived competence is by specifying that teachers should create situations causing a cognitive imbalance and presenting an attainable challenge. In that way, students experiment success in situations with increasing difficulty levels.

Third, the need for relatedness is addressed in the QEP by encouraging teachers to make their classroom a place where discussions and collaborative work are welcome. Involvement in extracurricular school-based activities is also encouraged within the QEP, in order to enhance the students' feeling of belonging to their learning community. Moreover, the QEP urges teachers to involve parents in students' school lives in order to allow students to see that a range of important adults in their lives support their academic engagement.

However, there is an important gap between the theoretical prescriptions of the Québec Education Program and what is actually done in the schools in the province (Larose et al., 2014). For example, according to the QEP, learning and evaluation situations are supposed to allow students to mobilize resources that are related to the physical setup of the environment, the material available and people who are present in the school or who can be consulted from a distance (Québec, 2007). Unfortunately, those resources can be restricted in some schools (Riel, 2009). It is an enormous challenge, especially for high schools, to allow students to benefit from the community resources, and to involve parents in school activities (Conseil supérieur de l'éducation, 2009). Many teachers are overwhelmed with their work, particularly in the inclusion paradigm in which students with different kinds of special needs are put in large "regular" groups (Boutin, Bessette, & Dridi, 2016; Riel, 2009). Moreover, the adoption of the bill 88 by Québec's government in 2008, which enforces the implementation of results-based management in education, impacts the practices of teachers who are now pressured to achieve numerical targets regarding the performance of their students (Centrale des syndicats du Québec, 2016). In this context, it is difficult for them to apply all the recommendations of the QEP regarding the support of the autonomous motivation of their students.

Enhancing Academic Motivation: An Intervention Program for Adolescents

Enhancing Academic Motivation: An Intervention Program for Young Adolescents (Brier, 2006) is a research-based intervention program addressing the academic motivation of adolescents of middle school level, which is described as a desire to acquire school-related knowledge, to willingly approach and engage in learning tasks, and to exert effort and persistence while learning. It targets youths with a history of chronic school failure, who are thus inclined to have motivational problems. Those teenagers tend to avoid academic challenges, to fail to become engaged when given a learning task, to deny the positive reasons for

learning in school, and to attribute their failure to stable, internal causes such as low intelligence (Brier, 2006). The specific goals of the intervention program are the following: to increase students' willingness to approach learning tasks; to bring about a higher level of engagement while learning; to induce youths to demonstrate a higher level of effort; and to help them persist at learning tasks, even in the face of frustration (Brier, 2006).

The program consists of sixteen one-hour sessions designed for class use, but they can be adapted for smaller groups or individuals (Brier, 2006). It is typically conducted over an eight-week period. Interventions are based on a student-centered model of learning, so teenagers are encouraged to be the main speakers, while the teacher plays the role of facilitator, encourages the expression, elaboration and clarification of ideas, stimulates discussions and giving feedback (Brier, 2006). Storytelling, role-playing and homework assignments (to track their motivational effort on a daily basis) are the three instructional methods used in the program (Brier, 2006). Teachers and caregivers are encouraged to become partners to succeed in enhancing at-risk students' academic motivation. As such, caregivers are invited to support their adolescents' schoolwork by becoming actively involved in their academic experience and by exhibiting a positive attitude toward their accomplishments (Brier, 2006).

SDT Perspectives and Critique of this Intervention Program

Some aspects of this intervention program are coherent with SDT applied recommendations, but some of its core dimensions are insufficiently included, such as a real acknowledgement of the assumption that human beings have a natural propensity towards learning, and that social contexts must help fulfilling psychological needs to avoid thwarting this innate tendency. Session 1 of the intervention program, which focuses on the presentation of the concept of motivation to the students, is used to support this critique. The other sessions address themes such as the reasons why students do their schoolwork (pride and mastery vs. eliciting/avoiding judgment), the personal beliefs about intelligence (self-efficacy vs. learned helplessness), the awareness of having negative and hurtful thoughts about the reason for one's academics difficulties, relaxation techniques to combat school-related anxiety (muscle relaxation, deep breathing, warmth/heaviness, guided imagery, meditation, counting, self-instruction), and the reinforcement of study skills (Brier, 2006). Here are the aspects of this intervention contravening to the SDT perspective.

First, teachers using this material must be very careful not to present it in a way that would make at-risk students feel guilty for their lack of academic motivation. For example, in the definition of motivation presented to students in Session 1, it is written that "Motivated students want to learn, try by putting out as much effort as they can, and maintain their effort even when frustrated or anxious. Youngsters are more likely to be motivated if they see schoolwork as important to them – that is, as valuable and attractive" (Brier, 2006, p. 9). As in the other interventions of the program, it is not stated that students might have valuable reasons to not find school attractive, such as a socially toxic environment or an unappropriated level of challenges. It is precisely those reasons that should be discussed in an academic motivation program, if the idea that humans are inherently curious and proactive is endorsed, as suggests the SDT.

Another example of how the social contexts in which adolescents evolve are not taken into account in this intervention session is the proposed discussion about how comparisons to others, failure and criticism affect motivation. It would be inevitable to include in this discussion a reflection to raise awareness of students about the competitive and standardized educational context in which they have to be motivated, comparison being induced by the fact that they are often expected to do the same things, in the same lapse of time, with the same results.

Also, the program is designed in a way that allows an unknown adult to conduct it (Brier, 2006), and it is problematic because the need for relatedness, particularly in the case of at-risk teenagers, should be fostered with significant adults instead of an external intervenient.

Still, corresponding to the SDT perspective are concerns towards the relative benefits of rewards, and the supremacy of intrinsic over extrinsic motivation. To avoid being hypocritical, teachers should include in such discussions a dialogue about grades acting as rewards, and how it can affect intrinsic motivation. Also,

in coherence with the autonomy-supportive teaching style promoted by SDT, this program encourages the intervenient to mostly play the role of a facilitator during the sessions, giving positive specific feedback. Finally, the program presents some good strategies to enhance students' autonomy and perceived competence such as planning ahead of time what needs to be done, setting goals, keeping track of what has been completed, fighting discouraging thoughts, and finding ways to be less nervous.

Conclusion

To answer the main question of this paper: "how can school agents and educational policies best support the adolescent's motivation in a school context?", I have drawn on with the SDT perspective, which encourages the practitioners to capitalize on the inherently active and curious nature of adolescents. This aligns with Deci and Ryan's (2012; 2009) position that educational policies and practices of often adopt strategies of external control, monitoring, evaluation, and artificial rewards to foster learning. Learning thus experienced becomes a chore rather than a joy – the latter being obviously more related to engagement. Indeed, it seems clear that demands on teachers such as performance standards, accountability pressures, curriculum priorities, deadlines, testing schedules and large class size influence them to react by utilizing controlling measures, assuming that it will maximize achievement outcomes (Reeve, 2002). I am extremely concerned by the evidence that controlling environments' contribution to academic failure and dropout is very important; a frequent response of teachers (and parents) to students' disengagement being to add more controls and pressures rather than more autonomy support (Ryan & Deci, 2009). To defuse this vicious circle, especially affecting at-risk students, intervention programs aiming to enhance academic motivation should be led by significant adults for the students, implicating discussions to identify the reasons why the latter are not finding schoolwork attractive and to raise their awareness of the competitive and standardized educational context in which they are expected to be motivated; of course, consequent actions to address those reasons and this educational context should then be undertaken.

Proponents of the SDT perspective see the high-stakes testing movement as an increase of controlling structures which negatively influence students' intrinsic motivation and the quality of their internalization of transmitted practices, values, attitudes and rules (Ryan & Deci, 2009). Correspondingly, I agree with policy recommendations to encourage school boards to develop more educational institutions where educators can foster students' inner tendencies to grow and learn, instead of teaching to the test (Ryan & Deci, 2009). Promising educational institutions such as democratic schools, alternative schools (e.g. Montessori high schools), and self-directed learning centers, should be seriously investigated by scholars and governments to enhance learners motivation and address actual challenges (e.g. drop outs, literacy levels, etc.). Fulfilling students' basic psychological needs recognized by SDT — and thus allowing intrinsic motivation to be experienced — can be achieved by acknowledging teenagers' freedom of choice within their learning, while offering them a nurturing environment and personalized support to achieve their objectives.

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