

Understanding Self-Regulation in Education

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Abstract

Self-regulation is a process referring to the knowledge and awareness of one's own ability to learn. Recent studies focus on self-regulation in the classroom environment, because it is recognized as an important component of student academic achievement. Exploring factors such as the five-domain model, learning disabilities, mindfulness, and the classroom and its connection to self-regulation, provides a greater understanding of how best to support students with these challenges. The ultimate goal of educators is to create lifelong learners; therefore, it is the responsibility of teachers to provide strategies that will contribute to student success.

Self-regulation is a learning process in which one manages their emotions, behaviours, and attitudes, to reach an ideal level of stimulation where they are best able to learn. The classroom is an environment that constantly demands self-regulation behaviours, because they are critical for success with teachers and classmates, abiding by classroom rules, and attentively listening to the teacher (Montroy, Bowles, & Skibbe, 2016). The objective for understanding self-regulation in a school setting is to provide students with the tools necessary to help them focus, find a state of calm, and regulate themselves, while strengthening their personal well-being. To effectively support the development of self-regulation, it is important to observe students' development, encourage and support each student in specific individual ways, and recognize what self-regulation looks and sounds like. Educators and special education teachers ought to be familiar with the factors that influence a student's ability to self-regulate in their classrooms. It is pivotal for students to attain essential self-regulation skills in order to guide them toward a successful, functional future. Understanding factors such as the five-domain model, learning disabilities, mindfulness, the classroom, and their connection to self-regulation will provide classroom educators and special education teachers a deeper appreciation of how to support students with challenges in this area.

The Five-Domain Model as Applied to Self-Regulation

The key to understanding self-regulation is to recognize the five domains that help students to stay calm, focused, and alert. The domains explored are the biological domain, emotional domain, cognitive domain, social domain, and prosocial domain. Students with optimal self-regulation in the biological domain can focus and perform during their learning experiences and physical activities (Shanker, 2013). However, challenges in the biological domain often lead to self-regulation problems in at least one of the other four domains (Shanker, 2013). A critical component for educators is to observe students' behaviour regulation throughout the school day, because it directly affects the students' ability to self-regulate. An example is changing the tone, level, and speed of the teacher's voice when frustrated (Shanker, 2013). These minor teaching changes assist in student self-regulation and provide optimal, effective learning environments.

Positive emotional and social development are the foundation for mental health and malleability throughout life (Mental Health Commission of Canada, 2018). The Mental Health Commission of Canada (2018) estimates that 1.2 million children in Canada are affected by mental health and emotional challenges. It is important for educators to guide students to optimal emotional self-regulation where they are resilient and have positive self-esteem (Shanker, 2013). Students struggling with emotional self-regulation find it challenging to recover from negative emotions such as disappointment or embarrassment (Shanker, 2013). Educators must acknowledge that it is acceptable for students to feel and express negative emotions,

before shifting the focus to positive emotions such as happiness. Emotional regulation occurs when students attend to their negative emotions: fear or anxiety, and concentrate on positive emotions: excitement or enthusiasm.

The cognitive domain focuses on how students gather and process new information, relying on their executive functions and metacognition (Shanker, 2013). Current research on executive functions suggest that students must recognize when they need to self-regulate (Short, 2016). When students are proficient in the cognitive domain they, can focus, think logically and critically, comprehend, set goals, prioritize tasks, and be cautious of their own strengths and challenges (Shanker, 2013). Metacognition and executive function, as part of self-regulation, are the main components of the cognitive domain and play a critical role for classroom educators and special education teachers.

The social domain is a major factor of self-regulation, due to the amount of time that students spend in school or participating in extracurricular activities. Students struggling to cope in the emotional domain generally find it difficult to regulate themselves in the social domain (Shanker, 2013). Optimal regulation in the social domain means that the needs for approval and equal opportunities are met, and students have ample opportunities to understand their emotions and themselves as learners (Katz, 2012).

The prosocial domain focuses on positive behaviours expected in the classroom environment. Issues in this domain occur when conflicts arise, or students have challenges with social interactions, and they often affect the four other domains (Shanker, 2013). Students able to self-regulate in the prosocial domain excel in authentic actions; they are empathetic and altruistic, often engaging in actions to benefit others, such as classmates or peers (Shanker, 2013). For positive interactions among students to be created, they must learn and practise intrinsic behaviours such as compassion, honesty, kindness, and a genuine interest in others. Acknowledging the components of each of the five domains will provide educators and special education teachers insight into the demands of students who need self-regulation support.

The Role of Learning Disabilities on Self-Regulation

A misconception about students with exceptionalities is that their lack of self-regulation is caused by a learning disability; however, self-regulation challenges are often a negative side-effect of their disability (Shanker, 2013). Special education programs in Canadian schools assist with education plans and supports, in order to ensure that students with learning disabilities receive the same education as those without (Shanker, 2013), and are successful in their learning environment. These are based on the inclusion model that suggests students with exceptionalities benefit from classroom environments wherein they have supports in place that provide them opportunities for success (Lichtinger & Kaplan, 2015).

Within the classroom setting, self-regulation challenges affect students with learning disabilities in kinaesthetic, auditory, visual, memory, and critical and logical thinking domains (Lichtinger & Kaplan, 2015). Practising self-regulation and obtaining school supports are imperative for students with learning disabilities because they are more likely to demonstrate impulsivity (Lichtinger & Kaplan, 2015), and are less equipped to effectively deal with stressors that arise (Shanker, 2013). The capacity to self-regulate is crucial for students in the classroom, because it affects their ability to perform academically and function behaviourally in an acceptable manner (Graziano et al. 2015). Typically, students with learning disabilities are similar intellectually to their classmates, but have noticeable challenges that hinder optimal academic achievement and task performance (Lichtinger & Kaplan, 2015). Students capable of self-regulation monitor their emotions and adapt their behaviours, conducting a desired outcome (Blalock, Franzese, Machell, & Strauman, 2015).

It is a common challenge for students with impulse behaviours to adjust their actions and self-monitor (Shiels & Hawk, 2010), leading to ineffective self-regulation processes. A goal for students with learning disabilities is to recognize their ability to self-regulate and find motivation

to do so for both academic and performance tasks. Constant practice of self-regulation strategies and techniques encourages students to strive for educational success (Shanker, 2013). Students with learning disabilities will benefit from opportunities that increase their understanding of behaviour adaptations and self-regulation within the classroom.

Mindfulness as a Means To Achieve Self-Regulation

Mindfulness is an increasingly common technique in schools and classrooms, and is a successful tool for achieving self-regulation. Mindfulness research suggests that the practice of awareness – being focused and present in the moment - helps students to make appropriate, conscious decisions, rather than those based on an emotional reaction (The Hawn Foundation, 2011). Mindfulness is not a time for students to zone out; instead one should purposefully focus their attention to their physical being and their immediate surroundings, thoughts, and emotions. A critical piece of mindfulness practice is concentrating in a nonjudgmental way (The Hawn Foundation, 2011), encouraging reflection on emotions and behaviours.

Core Practice (The Hawn Foundation, 2011) is an effective strategy for students to take responsibility for their own regulation needs. The method for Core Practice consists of three steps: (1) pause: stop what you are doing, and find a comfortable position to sit in, (2) listen: notice the sounds in your immediate environment, and (3) breathe: take long, slow breaths. Methodic breathing will help students to regulate both their behaviour and emotions, becoming less likely to react impulsively, and to respond in a controlled, reflective manner. Students participating in mindfulness exercises are more adept at regulating their emotional state and their behaviours, while lessening feelings of anguish (Short, 2016). To achieve optimal self-regulation, students use mindfulness to relate directly to whatever is happening, and practise strategies that encourage an open and focused mindset. Reducing stress and fostering a balance of positive emotions increase one's well-being, and ultimately their ability to attain a state of calm.

Transition periods are difficult for students (Van de Geyn, 2017), prompting teachers to use instruments such as singing bowls or nature sounds to help children relax, and then successfully transition into the next activity (Shanker, 2013). In Bracebridge, Ontario, singing bowls are used with students following their first recess transition, in order to help them return to a focused state, and to ensure that they are calm the rest of the day (Van de Geyn, 2017). There is a positive correlation between mindfulness and its effect on self-regulation, behaviour, and well-being (Howell & Buro, 2011). The reward for students using mindful strategies is to achieve an optimal level of self-regulation on their own.

Self-Regulation in the Classroom

The classroom environment is key for optimal student self-regulation. Because students spend a large part of their day in the classroom, the quality of the learning environment is an important component for student success. Involving students, and encouraging them to take part in the decision process, inspire ownership of their learning, while developing intrinsic motivation and competence in themselves (Katz, 2012). When students are included in decisions regarding their learning and well-being, they are more willing, and better able to control themselves.

In the classroom, educators may offer students a variety of methods for self-regulation success. Examples include chewing gum when agitated, differentiated seating such as yoga balls or Hokki chairs, weighted blankets or other objects, or a microphone system to help students focus on the teacher's voice rather than other distractions (Pooley, 2017). The constant communication between teacher and student empowers students to take responsibility for their own learning and monitoring, with the support and guidance of the classroom teacher.

Students become more aware of the self-regulation practices that work for them and that can be used throughout their learning journey, and outside the classroom.

Conclusion

Self-regulation is not a one-size fits all strategy; rather, it encompasses many components that can be used to create functional, successful classroom environments. The greater our understanding of the five-domain model, the better able we are to implement strategies that support a student's capacity to learn and develop the skills necessary to effectively and efficiently deal with life's demands. Similarly, practising mindfulness is paramount to encourage students to be present, non-judgmentally, and live in the moment. When students become aware of their emotions and surroundings through mindful experiences, they can increase focus and self-regulation, while reducing high levels of anxiety and stress.

Students with learning disabilities often require greater support developing an understanding of effective self-regulation strategies to use when in the classroom environment. When students establish strategies they deem successful, they are more likely to be involved in their self-regulation. Self-regulation requires students to regulate their own feelings, focus their attention, and manage many other daily tasks. It is crucial to adopt individual strategies for self-regulation at a young age, so they will contribute positively to the students' lives as they grow into competent adults.

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About the Author

As of 2017-18, Jordana Etkin is a third year teacher in Winnipeg, Manitoba. She began her Master of Education degree in 2016, with a focus in special education. Jordana enjoys spending time with her family and friends, reading, listening to live music, and visiting some of Manitoba's beautiful trails and beaches.