

UTILIZING ADOLESCENT BRAIN RESEARCH AND PRINCIPLES FROM
ATTACHMENT THEORY TO IMPROVE STUDENT SUCCESS

by

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Abstract

Adolescence is a period in human growth that sees great change in brain development. While researchers have done tremendous work on the topic of attachment and connectedness for infants and adults, an emerging focus of research on adolescents is required in order to bridge the gap between childhood and adulthood. In the last 15 years, major research has been done specifically on how the adolescent brain develops and prunes information. This paper takes information from adolescent brain research, along with social emotional learning skills and attitudes and provides practical information for schools, parents, and governments on how to improve student outcomes. Many elementary schools have programs that specifically teach social and emotional skills as well as academic skills, while secondary schools seem to focus more on academic pursuits. As educators continue to focus on developing well-rounded individuals, it is imperative that we include academic as well as social emotional education at all levels of school. Where there may have been doubt before as to the efficacy of teaching and modeling adolescents in social emotional learning, the research that has been done on the developing adolescent brain supports the idea that secondary schools should be including programs and educators that support the attitudes, skills and education of social emotional learning in addition to academics.

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Chapter 1: Introduction

It is vital that when educating our children's brains that we do not neglect to educate their hearts. – *The Dalai Lama*

This paper aims to provide information on how social emotional learning (SEL) with adolescents can improve their internal control over their emotions and behaviours. It presents information on recent research into adolescent brain development, and utilizes a framework for social emotional learning that promotes resiliency through preventative, mentoring measures. This chapter will begin with information on attachment theory, recent developments in adolescent brain research, how nature and nurture work together in adolescent development, how student success is impacted by a lack of social emotional competencies and what educators in Canada have done so far to aid students' social emotional competencies. Following this background information, this chapter addresses the frustrations and behavioural problems that students, teachers and parents frequently experience within the secondary school system that might be alleviated by using current knowledge about adolescent brain development and social emotional learning strategies.

Finally I will propose my hypothesis, give examples and definitions that will help the reader understand this topic, and provide a concise summary of the chapter and an outline for the rest of the paper.

Background

Attachment Theory

According to Wikipedia (2015), “attachment theory is a psychological model that attempts to describe the dynamics of long-term interpersonal relationships between humans.” Attachment theory is based on the idea that it is in an infant's evolutionary nature to attach

themselves with a trusted caregiver. An infant's very survival is linked to their proximity to a caring adult. If an infant does not have someone to care for it, it will die. A deep trust and bond is formed between an infant and a loving caregiver as both are experiencing reciprocity of love and belonging. This reciprocity is the start of a child's social and emotional development, which sets the tone for the type of relationships they will form.

Whether or not an infant attaches depends on the behavior of both the infant and the caregiver. If the child's needs are met and they feel safe and secure then an attachment forms. Some infants however are more challenging to take care of and caregivers may have a harder time bonding with babies that have colic or extreme health issues that make it physically or emotionally exhausting. In these cases it is prudent for parents to use the help of a nurse or close family member or friend. The baby will then make attachments with other close caregivers, but the main caregiver (usually mom) will still have a special bond with the baby because of the amount of time spent in the womb. With the help of others, the mother or main caregiver will be able to care for the infant in a more calm and connected way because much of the stress has been alleviated.

One of the important differences between infant/caregiver and adolescent/caregiver relationships is that infants are not physically able to choose or exit their caregiving relationship. Teenagers are able to choose both their peers and mentors. While most teens will continue to live with their families even in stressful situations, if their home life is bad enough they may choose to exit with limited ability to take care of even their basic needs. It is imperative then that schools and the community in which these adolescents live provide positive role models and services that can intervene when necessary. Teenagers with all of their unique challenges and stresses need many caring, connected adults in their lives. The unique challenge that

adolescence brings creates a similar type of stress for families that infants do. Utilizing the humanistic model of attachment by building a community of caring, trusted and connected adults around teens is one of the best ways to ensure positive outcomes for youth.

Teens often create a hierarchy of relationships. There is an ebb and flow to the types of attachment they have to different, significant people in their lives depending on what their needs are. The need to fit in socially requires relationships with peer groups that are beneficial to this goal whereas the need for food and shelter is usually satisfied in the home. The need for love and belonging however can be found in many different relationships that the teenager has. This is where the biggest challenge occurs for creating secure attachments for adolescents. The adolescent to parent attachment should be built on trust and a sense of security and safety. When a parent fails to provide these things to their teen, or the teen interprets that a parent is not safe, secure, or trustworthy then the adolescent will seek out secure attachments in other places. Having multiple attached relationships with trusted caregivers is essential to the health and well-being of teenagers. Schools are in a unique position to teach and model positive social and emotional health because this is where teenagers spend a large portion of their time. We must teach and mentor youth with positive attachment behaviours so they can develop an internal working model that will set them up for positive interactions with others in the future.

Adolescent brain research

“What were they thinking?” is a commonly heard expression from exasperated parents who struggle to figure out why teenagers behave the way they do. Recent discoveries in neurobiology have shown that the complex systems of the brain undergo a great deal of change during the adolescent years. We are now able to better answer the question of what they were thinking, which allows securely attached adults to help teens through these tumultuous years.

While we now understand more about how the adolescent brain develops, we must also consider that each individual brain will develop at its own rate and is dependent on experiences and life circumstances for its maturation process. Laurence Steinberg (2009), who studies adolescent development and wrote an article on utilizing neuroscience to inform public policy, notes that “knowing an individual’s chronological age permits us to estimate his or her neurobiological maturity, on the basis of these averages, but there is considerable variation among individuals of a given chronological age in brain structure and function, just as there is variation in psychological functioning.” We cannot rely on the science of brain development alone to create educational policies because not every student is alike in their maturational development. There are simply too many factors that affect how the adolescent brain develops. What we can use are typical models of brain structure and functioning to inform what supports are necessary for optimal maturity. What has recent neurobiology learned about adolescent brain development? According to Jensen & Nutt (2015), “in the last decade, the National Institutes of Health conducted a major study to examine how brain regions activate one another over the first twenty-one years of life.” (p. 37). They found that, “the connectivity of the brain slowly moves from the back of the brain to the front.” (p.37). In fact our brains are not fully finished developing and the connections or synapses that we are continuously strengthening or deleting with each experience lasts until our late 20s.

Jensen & Nutt (2015) note that “the connectivity to and from the frontal lobes is the most complex and is the last to fully mature... this could never have been learned before the advent of modern brain imaging.” (p. 37). The machines needed to facilitate this type of research were not available even fifteen years ago. Utilizing new fMRI (functional Magnetic Resonance Imaging) machines, researchers have found that the frontal lobe is the area of the brain responsible for our

personality, emotions, memory, language, sexual behavior, insight, and emotional expression. (healthline.com, 2015).

If these characteristics are some of the last to develop, it means that our teens really do need responsible, caring adults guiding them, and caring for them while they learn how to navigate and internally control their emotions. It is widely known that children require external prompts to develop social and emotional intelligence, but new brain research is showing that teenagers also need external prompts and guidance while their brains fully develop in order to get to a position of internal, personal control. In the past we have looked at teenagers as mini adults, but we must now reconsider the idea that they are an age group with unique brains and unique needs. Their brains are much different than either a child's or an adult's brain and we must change how we have been teaching and interacting with them based on this new knowledge.

This new research can have a profound effect on the emotional health of our students if we use what we now know about adolescent brain development to inform best practices in our schools. This is especially good news for educators as emotional health leads to better cognitive and behavioural outcomes. In her video on the teenage brain, Sarah Jayne Blakemore attributes Polly Arnold (2013), saying, "cognitive science is about averages. Individual differences make a huge difference in how they think/behave. Being attached can help. Other factors include culture, genes, and socioeconomic status." Educators have no control over the culture, genes or socioeconomic status of their students, but if we increase the nurturing that we give our students by connecting with them we can improve their odds of having positive cognitive outcomes.

Nature & Nurture: how does it work together in adolescent brain development?

The adolescent body and mind go through many changes as growth occurs. Historically we have blamed raging hormones for the behavior and decision making skills of teenagers. We see how our young people change almost overnight from sweet, kind and loving individuals to people that seem to have little ambition, a lack of empathy and a need to do whatever it takes to fit in with a group of peers. While all these things may be true, we now realize that it is the development of the adolescent brain rather than the raging hormones that make teens act the way they do. Having raised two teens in my own home, I have seen how their actions, persona and thoughts have often changed from week to week in their progress towards independence. Ask any secondary school teacher and they will tell you of the significant change they have seen over the years in each graduating student. There is a desire in all of us to fit in and to find satisfying relationships that connect us to each other and to ourselves. According to Sarah Jayne Blakemore (2013) in the Royal Society video on the teenage brain, “the social brain develops structurally and functionally during adolescence.” This means that the physical form of the brain is changing especially in the frontal lobe, but also that the function of the adolescent brain is wired to help them achieve independence and prepare for life as an adult. The adolescent’s unique brain development provides us with an opportunity to build and nurture healthy connections. We know more about this period of brain growth than we have ever known before. Educators, parents, policy makers and even adolescents need to nurture this growth to its fullest potential. We need to use what we now understand about natural brain development to provide opportunities for optimal nurturing.

Research has shown that nature and nurture work both independently and together to create these changes. McDevitt and Ormrod (2010) write that “We’re born with certain

tendencies that our environments may or may not encourage.” (p. 119). This means that parents and educators can have a profound effect on the lives of children no matter what their genetic makeup is. It would be as if an artist were given several canvases and a set of paint colours to use on each one. Each canvas would have specific paint colours on it, but they could be blended any way the artist chose.

Understanding how teenage brains work is the key to finding ways that maximize the potential for any student who has neurological disorders. Dan Siegel (2013) says “the purpose of adolescent brain development is to increase integration.” The brain is wired to integrate all its parts to work together for optimal use. Educators and parents have the ability to nurture this integration and it is imperative we use those adolescent years to help develop healthy pathways and neural networks because these pathways are the building blocks to a healthy and mature adult brain. The more we feed the adolescent brain good information and positive feedback when good choices are made the stronger the pathways will be. Conversely, not providing the type of environment and feedback for healthy adolescent brain development can be disastrous. The Canadian Mental Health Association (2015) estimates that “10 to 20% of Canadian youth are affected by a mental illness or disorder – the single most disabling group of disorders worldwide.” Recognizing this as a real problem, and understanding that educators and parents can make a difference in the lives of youth is a powerful tool. According to Hymel, Schonert-Reichl & Miller (2006), “children who experience social-emotional and behavioural problems are now recognized as being at risk, not only for poor interpersonal relationships, but also for limited school and life success.” (p. 153). I believe this is the single biggest argument for providing educators and parents the knowledge, tools and time to create strong attachments with teenagers. Knowing that we can influence genetic growth patterns in the brain with nurturing

adult connection is something that can change the social and emotional health of teens and future generations.

Student Success and Emotional Health: how are these linked?

A great deal of research has been done about the mind/body connection. We have all experienced times in our lives when we are stressed out and feel like we cannot concentrate on the task at hand, or we make bad decisions when we are too tired, cranky or anxious. This leads to more anxiety and poor decisions and for adolescents whose brains, limbic systems and central nervous systems are still developing this can have dire consequences. When students are emotionally healthy it is easier for them to concentrate on school and to achieve more success. When something breaks down in an adolescent's life whether it is a problem with a friend, stress at home, a sickness (chronic or not), boredom or frustration with school work, kids cannot concentrate in the classroom. Educators are now working on teaching self-regulation techniques like going for walks, meditating, taking time outs, or listening to music to help students cope and get back on track. All of these coping strategies require one thing – a caring teacher who can show the students how to self-regulate. A second perhaps even more important step in this process is to create peer connections that will enable students help a classmate when they see they are in trouble. By building up a network of support in the classroom, teachers are better able to manage issues when they arise which leads to less anxious students and the possibility of increased student success.

Social Emotional Learning in Canadian Schools

Only recently have educators in Canada come to acknowledge how important social emotional learning is to the academic outcomes of our students. With governments across the country expecting teachers to do more work with less money and support, researchers and

teachers themselves are looking to revamp what classroom management and learning looks like. As teachers and schools are unable to create smaller class sizes because of government funding, they are tasked with finding programs and ways of connecting with all of their students that benefit the highest number of students. Getting students to be more self-reliant as they get older and to take more ownership of their learning and behavior management seems like the most economical way of dealing with the issue. Getting to that place of self-reliance however is not an easy task and for some students it seems almost impossible. A rise in autism diagnoses, mental health issues caused by high anxiety, lower parental involvement of working parents and larger class sizes are all examples of how the educational system has been taxed in the last fifteen years.

Provincial governments have been putting programs in place that focus on healthy schools as it is becoming clear that a healthy student is not just one who eats right and exercises. In order to keep costs to a minimum however, governments are relying more and more on evidence-based research to find programs that will provide the most support for the lowest cost. In the last decade, the emotional health of students has been raised as an important topic for research. According to CASEL (2013), the Collaborative for Academic, Social and Emotional Learning, a Canadian organization which champions positive academic, social and emotional outcomes for students, “brain development research and awareness is growing and there is recognition that there is a science to emotional and social development.” (p. 5). Since 1990 the number of social emotional based research journal articles has grown exponentially. Schonert-Reichl & Osher (2013) noted that “using the search terms ‘Social-Emotional Learning’ or ‘Social and Emotional Learning,’ there were 431 citations from 1990 to 1999 and 2,041 citations from 2000 to 2006. From 2006 to present, the number of citations in Google Scholar has more than

tripled to a total of 7,140 citations in only 7 years.” (p. 1). Evidence based research that produces quality social emotional programs or at least the impetus to create quality programs will help alleviate doubt in the minds of governments who are responsible for funding public education. School policy makers are really starting to understand how important it is to teach the whole child, not just the academic subjects. This year in British Columbia, a new curriculum was introduced to teachers. On the Transforming BC’s Curriculum section of the BC Ministry of Education’s website it says “consultations to date have pointed to clear directions: A more flexible curriculum that prescribes less and enables more, for both teachers and students and a system focused on the core competencies, skills and knowledge that students need to succeed in the 21st century.” It seems that both teachers and government officials are starting to understand that we need to provide a curriculum and a culture at schools that promote educating people for successful lives in all aspects.

The emotional health of students impacts their cognitive and behavioural abilities and in turn can affect their physical health as well. As researchers, educators, doctors and even parents across the country are figuring out just how important mental health is, schools and school boards are having to find programs and tools to keep up with the research that is being presented. Preventative measures rather than medical solutions are quickly being created and adapted as research is showing that the quicker we can help a student with mental or physical challenges the better their prognosis for success in school. DASH BC, which stands for the Directorate of Agencies for School Health in British Columbia (2015) says that “school health promotion has been practiced in virtually every industrialized country for well over 50 years. What’s different today is the model and approach used.” The World Health Organization endorses the comprehensive school health model, which is a holistic approach that DASH BC utilizes. The

four pillars the framework is based on are teaching and learning, the social and physical environment, healthy school policies and partnerships and services. The idea is that these four areas work together to create a unified and interrelated model to create healthy schools. The model encompasses not only the school as the place for learning healthy ways of living, but includes the broader community as well. Partnerships with community centres, public health facilities, girls and boys clubs and mental health facilities are being made so that students and their families can find support to live healthy lives. I believe this is one step closer to a connecting model that we need in place to achieve student success. Its success will depend on the schools and communities staying informed of the latest research and having the flexibility to adapt or modify any program that is not working. Having a resource like DASH BC, where people have the knowledge, access and time to research the latest findings on what makes a healthy school can provide a wealth of information that will lead to student success.

Purpose

This paper focuses on the adolescent years. It is the age group that I work with, but I also chose it because I believe there is a need for us to understand how our adult interaction with adolescents has the power to change the circuitry of the brain. In her book *The Teenage Brain*, Jensen notes “there are unique vulnerabilities of this age window, but there is also the ability to harness exceptional strengths that fade as we enter into adulthood.” (p. 4). The combination of neuroscience and psychology to further understand adolescent behavior provides a unique opportunity for research and exploration. Blakemore (2008) notes that “there has been surprisingly little empirical research on social cognitive development that takes place beyond childhood. Only recently have studies focused on the development of the social brain beyond early childhood and these studies support evidence from social psychology that adolescence

represents a period of significant social development.” (pg. 269). Advances in brain imaging have allowed researchers to get a much clearer picture of how our cognitive and emotional brains systems interact with one another. Doctors Sara-Jayne Blakemore and Daniel Siegel among others, have written about the “theory of mind” which was researched using fMRI scans to identify and see changes in the regions of the brain that involve social cognition. Blakemore (2008), a social cognitive neuroscientist, notes “behavior that is related to social cognition changes dramatically during human adolescence. This is paralleled by functional changes that occur in the social brain during this time.” (pg. 1). Much research has already been done on attachment and early childhood development, but equivalent research on adolescence is still an emerging field. Building a network of caring, empathic and trusted adults to guide adolescents into adulthood is going to be the catalyst that turns teenage vulnerabilities into adult strengths. Child development authors McDevitt and Ormrod finish their chapter on making a difference in the lives of children and adolescents by saying “developmental paths depend significantly on teachers and other caring adults... you can do much to help children navigate their individual developmental journeys.” (p. 28).

This paper provides an argument for the development and utilization of social/emotional learning programs and assessment tools in secondary schools. It aims to support the use of social/emotional learning strategies in secondary schools by utilizing recent research in adolescent brain development. Suggestions for school wide programs and/or community partnerships and further research will also be explored.

Statement of the Problem

Educators in Canada are tasked with developing conscientious, skilled youth ready to take a positive role in building their communities. The educational system, which is currently

based on competition, formative assessment practices and standardized learning is outdated and does not meet the needs of adolescents given what we now know about how the adolescent brain develops. Educators, parents, students and society itself are struggling to survive let alone thrive. We need to make a significant change in how secondary education is administered if we are to make a real difference in the lives of teens and young adults. It is imperative that educators understand how adolescent brain development impacts their cognitive, behavioural and social/emotional growth. Without this understanding and the development of schools and programs that promote the kind of growth and self actualization required for success, we will not have students that are ready to take on the challenges of adult life.

Statement of Research Hypothesis

Secondary schools that utilize the recent developments in adolescent brain research and who provide opportunities for connectedness, cooperation and attachment will improve student outcomes in social/emotional learning.

Scope of the Study

In order to provide a Canadian context of what social emotional learning is I will use CASEL's 5 social and emotional competency clusters of self-awareness, self-management, social awareness, relationship skills, and responsible decision making to provide an overview of what should be included in SEL programs and curricula in secondary schools. Specifically I will use research to support the idea that we should utilize the unique and specific ways the adolescent brain is developing to create programs and school cultures that promote social and emotional learning in order to develop happier, more empathic, more self-aware, resilient and less stressed adolescents.

Definition of Terms

For this paper, in order to provide a common language around the five competency clusters, I will use the CASEL definitions found in the Issue Brief: Social and Emotional Learning in Canada paper (p. 1), along with other terms that are pertinent to this literature review.

1. Self-awareness is defined as the ability to accurately recognize one's emotions and thoughts and their influence on behavior. This includes accurately assessing one's strengths and limitations and possessing a well-grounded sense of confidence and optimism.

2. Self-management is the ability to regulate one's emotions, thoughts, and behaviours effectively in different situations. This includes managing stress, controlling impulses, motivating one's self, and setting and working toward achieving personal and academic goals.

3. Social awareness is the ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behavior, and to recognize family, school, and community resources and supports.

4. Relationship skills include the ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed.

5. Responsible decision-making is the ability to make constructive and respectful choices about personal behavior and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others.

6. Metacognition, according to the Google dictionary (2015), is the awareness and understanding of one's own thought processes. It involves activities such as planning, strategizing, organizing and evaluating information towards the completion of tasks.

7. Executive function, according to Wikipedia (2015), is an umbrella term for the management (regulation, control) of cognitive processes, including working memory, reasoning, task flexibility, and problem solving as well as planning and execution.

8. Theory of mind (ToM), according to Wikipedia, is the ability to attribute mental states – beliefs, intents, desires, pretending, knowledge, etc. – to one's self and others and to understand that others have beliefs, desires, intentions, and perspectives that are different from one's own.

Significance of Study

Educators

Educators do not go into the profession to get rich, they do it because they care for students and because they want to prepare young people for the world they are going to face in the future. Teaching allows us to work on the hearts and minds of future generations. It is our way of making a difference in this world, to have our say in how our society will develop. Frustrations arise because a lack of funding has created classrooms that are too full, comprised of learners with many challenges and unique abilities that we cannot possibly teach every student in the way they need to be taught. The latest research is demonstrating what many educators have known for years – that we are an integral and necessary part of an adolescent's development and that we have the ability to improve a student's life by taking a positive role in it. This study is important for educators who want to develop students that are prepared for the academic, social, and emotional demands of a post-secondary world. Educators understand the role they play in

developing young minds that will be able to positively and effectively lead future generations. This is not a role that many of us take lightly. Access to relevant research provides a rationale for arguing for the need for smaller class sizes, improved curriculum development that encourages growth in all aspects of human development, and why we should be concerned with building caring, connected schools.

Research studies that promote the use of social/emotional learning strategies in the classroom, based on adolescent brain development will help to provide more job satisfaction for teachers. If educators use the research to learn specific strategies for social and emotional development it will ease classroom management and reduce the stress on teachers and students. Reducing the stress will allow teachers to focus on academic outcomes, students to concentrate on what they need to learn and provide a context for more care and connection with one another.

In short, this research will provide an opportunity to create a healthy school – one that educators thrive in. On the DASH BC FAQ page (2015) it says The World Health Organization defines a healthy school as “one that consistently strengthens its capacity as a setting for learning, playing, and working”. Teachers who are concerned about developing the hearts and minds of their students want to be part of an organization that is healthy, happy and where they have ample opportunities to connect with adolescents in meaningful ways.

Parents

Parents of adolescents often have a hard time knowing when to enforce rules, dole out discipline, or when to let their child assert their independence. The relationship between parent and teen is fraught with the ebb and flow of the search on the adolescent’s part for independence and needing security and reassurance of safety from their parents. Adolescents are naturally wired to take risks and are less able than adults to have insight into the consequences of their

actions in advance. Peers are more important than parents at this age and parents are often afraid of what it means when they lose influence over their kids' lives. As infants, our kids depended on us for the very basic necessities of life, and secure attachment is built on the provision of these needs as well as the feeling of safety. While adolescents still have the same basic needs, they are on a trajectory towards becoming their own caregivers. The difference is their desire to be independent. Babies don't feel the need for independence; they just want their needs met from a trusted caregiver. Adolescents want their needs met, but they also want to see if and how they can meet their own needs. As they graduate into adulthood, the adolescent brain is wired to take risks in order to achieve that independence. For many parents, this is a scary and sometime very sad place to be. It is scary because teens do not always have the ability to strategize the risk versus the reward and to perceive the dangers that come with risky behaviours. Parents do not always know how to talk to their teenagers and often come to conversations with an incorrect preconceived notion of what their child wants and needs.

In order for parents to be positively impacted by the recent developments in adolescent brain research two things need to happen. First, educational policies at the secondary school level must use the most recent research around brain development to develop a language, programs and curricula that will help students in their social and emotional development. Second, communication between secondary schools, home and the community must be better implemented, and must include a common language around social and emotional learning.

Students

This study is so important to adolescent students because the information we have now about how adolescent brains work has the power to change and even save their lives. Bullying, cyberbullying, anxiety, depression, self-harm, and other mental health issues are becoming more

prevalent among youth. Our students are counting on educators, parents and researchers to understand the unique needs of adolescents that can help improve their mental health. In order to do that, we need to fully understand what in the teenage brain is different than an adult or child brain. Students need help navigating their way to independence. Along the way, they need encouragement through validation of their thoughts and ideas. They need to test the boundaries from time to time to see what they can and cannot do, and sometimes they need people to tell them what to do when they are overwhelmed. Understanding that adolescent brains don't always plan and strategize well informs us to arm them with the knowledge of our experiences and failures. Students can learn from adults who have experience and can learn how to turn negative emotions and choices into positive outcomes on their own. This can only happen if we use compassion, understanding and knowledge to guide our relationships with our students. Creating schools that are connected, cooperative and empathic is imperative for developing strong friendships that provide emotional safety and satisfaction.

Communities

A healthy community is one that is inclusive and where every person feels they are able to contribute and have their needs met. It is not something you can formally organize, like a family gathering or a charity event. It is like a living organism that feels stress, joy, sadness and anger. A healthy community is one that knows how to handle all these feelings and thrives even in the worst possible circumstances. Our brains are no different. They adapt to different circumstances and develop or grow based on the environment surrounding it. It is imperative for our community's health to have its members developing and contributing in a positive way. Schools play a large role in the development of communities. Secondary schools in particular are in place to provide opportunities for personalized knowledge, growth and the development of

adolescents who will become adult members of a community. They are often the heart of social activities that provide opportunities for community members to get together and learn more about each other. This type of sharing and connection will only help build a stronger, more resilient and connected community that in turn will help its members be proactive in protecting it. A school, its teachers and administrators really do have the power to effect change in a community. It is imperative that we not waste these opportunities to promote cooperation, trust and interdependence.

Governments

This study is needed to provide a mandate for educators to change educational policy in a way that creates a society ready to take on the challenges of the future with a cooperative, creative and intelligent adult population. It is imperative that we always look to the future, while utilizing what has worked in the past when making decisions on educational policy. Integral to educational policy and societal demands is curriculum development. According to Case, Tomkins & Volante (2013), “Curriculum development in Canada has gone from teaching survival skills, both practical and cultural, to emphasizing self-fulfillment and standards-based achievements. This evolution mirrors that which has occurred in other developed countries, namely in Europe.” Curriculum developers can see that self-fulfillment is an important measure of success for students and yet there are no measures or standards to ascertain whether or not students are feeling personally fulfilled. There is an assessment piece missing between curriculum development and educational goals set forth in the mission statement of schools. Assessment has historically been geared towards cognitive skills achievement rather than social/emotional skills achievement, and these achievement strategies have been biased towards competition, not cooperation. Assessment tools like the Foundation Skills Assessment Tests that

students take in grades 4 and 7, as well as Provincial Exams taken by students in grades 10 through 12 ensure that teachers have to spend a great deal of time teaching core concepts and information that will help students achieve their best scores. While teachers know this is part of their job, they also know that not every child has the same ability to learn the information required to do well on the exams. School mission statements across British Columbia lead us to believe they would like teachers to be mentors and guides that help students succeed in ways that are meaningful, individualized and tailored to student needs, yet the two biggest forms of provincial assessment are the Foundation Skills Assessment Tests and the Provincial Exams. Currently there is no province-wide assessment for student social and emotional growth.

Summary

As a teacher, I saw a need in the secondary school system for a shift in educational programs that would reduce stress and anxiety for students, while improving their behavioural, cognitive and emotional lives. I contend that nature and nurture work both independently and interdependently in the growing adolescent brain, and that by utilizing the characteristic relationship of a secure base from Bowlby's attachment theory (nurture), while understanding the teenage brain and how it develops (nature) we can learn how to be effective role models and teachers to adolescents. The latest adolescent brain research is showing us that making positive connections with our students will go a long way in helping them to internalize healthy, resilient characteristics that will give them tools to be successful in all aspects of their lives in adolescence and into adulthood. The qualitative, quantitative and active research that others are doing has the potential to improve adolescent mental illness, school bullying rates, cognitive development and behavioural management. This research has the power to effect positive change not only for this generation of students, but also for the future generations of students.

Outline of chapters two and three

In chapter two, I will utilize the five core competencies for social, emotional learning provided by CASEL along with recent research into the adolescent brain to provide support for my hypothesis that secondary schools who use this research to develop programs or change educational methodologies will be able to improve student outcomes in social and emotional learning. This chapter will be divided into five sections, one for each competency. Each section will include information on the unique attributes of the teenage brain, how relationships, the mind and the brain influence each other while working individually and why building connections by having secure attachments between teachers and students in the classroom really matters.

Chapter three will provide a brief summary of all the information covered in the first two chapters as well as how the information presented can be used in the secondary school system. Practical suggestions for teacher practicum curriculum development, classroom management techniques and school engagement activities will be presented.

Chapter 2: Literature Review

Introduction

This chapter focuses on how we can use what we know about human and adolescent brain development to support students in their social, emotional and cognitive development. Over the years, scientists have equated brain development with intelligence. Intelligence is marked by the knowing of something. Salovey and Mayer (1990), two psychologists who pioneered research in the field of emotional intelligence, quote Wechsler's all encompassing statement that "intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment." (pg. 186). The biggest difference between the classical scientist version of intelligence and Wechsler's is the purposeful action that takes place when one "knows" or understands something. This is an important difference because intelligence then includes not only the scientific knowing of something, but also the understanding of how that knowledge affects the self and others. It combines knowledge, perspective, introspection and management.

This chapter is organized around the five core competencies for social emotional learning provided by CASEL. These competencies are self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. The definition for each of these competencies is provided in chapter one. These competencies are all part of what is called the social brain, that part of the brain that is affected by our interactions and thoughts about others and ourselves. For the purposes of this paper, each of the five competencies will include information for a deeper understanding, adolescent specific goals, and how each one translates to the classroom experience. This chapter concludes with an overview of what takes place in the

adolescent brain when it is engaged, during pruning and growth, and when making decisions about social or emotional issues.

A lot of research has been done, and many books have been written on the topic of emotional intelligence since the early 1990s. In 1995 Daniel Goleman wrote a book entitled *Emotional Intelligence* that helped deconstruct and inform readers on the research being done by Peter Salovey and John Mayer about how the brain processes emotions and relationships. Goleman (2005) says that his book was based on the “field of affective neuroscience, which explores how emotions are regulated in the brain.” (pg. 1).

Self-Awareness

Understanding Self-Awareness

According to Steiner (2014), “although definitions vary, self-awareness is generally seen as an inwardly focused evaluative process in which individuals use reflection to make self-comparisons to reality and the feedback of others.” Cherry (2014) notes that “psychologists often break self-awareness into two different types, either public or private.” Self-awareness grows when you discover and reflect on how your body naturally reacts to things (private) and how you adapt your actions/reactions when in social situations (public). The public self-awareness takes place when a person becomes aware of how others view them. This type of awareness often takes place in public and can be heightened when a person is perhaps the subject of a surprise party, or a speaker at a public event. It takes place when someone is aware that others are watching or evaluating, acting or reacting to him or her. This type of self-awareness usually encourages people to gauge and adapt their actions and emotions to appear as socially acceptable as possible. The second type of self-awareness is private. Being privately self-aware means that you are aware of your own feelings, thoughts and values about yourself. Kendra

Cherry (2015) notes that “feeling your stomach lurch when you realize you forgot to study for an important test or feeling your heart flutter when you see someone you are attracted to are good examples of private self-awareness.” Both public and private self-awareness are formed when a person contemplates, strategizes and act/reacts to their own thoughts and feelings and the thoughts and feelings of others.

The Adolescent Goals of Self-Awareness

Some of the skills required to improve self-awareness are decision-making, knowledge of personal internal and external motivators and understanding one’s capabilities and self-worth. Adolescent motivations and consequent actions are often unbalanced towards fitting in, taking risks, pleasing others and searching for independence. Throughout this struggle for independence however, they still require adult connection and approval to help them make decisions, define their identity and improve their self-esteem during this unique period of growth. Adolescents need positive, connected and loving adults in their life to act as role models as they struggle towards independence.

In the quest for self-awareness, some of the biggest questions adolescents ask themselves are “where do I belong, and who really loves me?” Brené Brown writes in her book *Daring Greatly* (2012) that “if we want to fully experience love and belonging, we must believe that we are worthy of love and belonging.” (p. 145). In order to believe we are worthy of love and belonging we must have experience or knowledge of what love and belonging are. There is a constant and cyclical interplay involved in self-awareness that includes experiences, beliefs, reflections and reactions. This interplay creates change and growth in our ability and goals of self-awareness. The unique social setting of high school, the specific emotional needs, and the changes in physical growth of adolescents all affect how a teen matures in self-awareness.

Self-Awareness in the Classroom

Steiner (2014) states that “if we believe in the concept of lifelong learning and development, then we must acknowledge the value of self-awareness as an important precursor to learning effectiveness.” Being self-aware is a crucial skill for adolescents to learn, as it allows them to make decisions now and for their future. It also has the power to either positively or negatively affect their view on their own strengths, needs and values. When adolescents have a skewed self-awareness, it can cause severe anxiety and distress because they can worry too much about how others view them, causing them to opt out of friendships and social situations. This can lead to decision making that doesn’t match what a person really wants for himself or herself. Alternately they may overestimate their skills and not do the work required of them to do a good job in school, or they may have difficulty keeping friends if they have an inflated view of themselves socially. Learning to balance one’s strengths with needs and values is a lifelong task that requires one to continuously contemplate one’s life from various points of view. Without at least a basic sense of self, this task can create disabling anxiety and depression. In classrooms a lack of self awareness can manifest itself as bullying, underachieving academically, paralyzing silence or illogical outbursts.

Teaching and modeling self-awareness to our students is imperative if we want them to grow, connect, learn, act and work in a genuinely self-actualized manner. We must teach and model the skills in the classroom that we want our students to learn and do. Patricia Steiner (2014) notes that “some refer to self-awareness, reflection and strategic thinking as metacognitive skills that make an impact on student learning, requiring the ability to access prior knowledge in order to synthesize information, correct misconceptions, ask questions and draw

inferences. Self-awareness becomes the most important construct in emotional intelligence.” If students lack self-awareness their emotional growth could be stunted because:

1. Their emotional or behavioural strategies may be incongruent with their beliefs of themselves and others.
2. They will not get positive feedback from others if their behaviour does not match other’s expectations of them.
3. They will not find success in keeping good relationships because the same “problem” behaviours will create stressful environments.
4. Any negative feedback could fuel negative behaviours, which leads to negative reactions and a loss of connection with a peer or teacher.

Teachers and parents can model and teach self-awareness through mindfulness exercises, journal writing or simple conversation. Each of these would allow youth the time, space and connection required to give meaning to an event, experience or lesson.

Self-Management

Understanding Self-Management

Self-management is challenging at any age. It requires us to be thoughtful of what we need and want, to assess our current thoughts and behaviours in light of our needs and desires, and then to implement the goals we have made based on our assessments. Ask any adult what they are doing to manage their stress and schedule and most times the answer is nothing. If adults are not doing anything to manage stress in their lives, how can we expect youth to do it? Much of the literature on self-management focuses on self-management of various diseases. Ironically, I believe that if we put more effort into self-managing our lives when we are healthy, we will not have as many diseases to manage.

For educators, the ability to alleviate the effects of and/or eliminate both mental and physical illness is an important reason to start teaching self-management in schools. Schonert-Reichl & Miller (2006) say that “children who experience social-emotional and behavioural problems are now recognized as being at risk, not only for poor interpersonal relationships, but also for limited school and life success.” (pg. 153). Being able to manage our thoughts, feelings and behaviours is crucial to our success now and in the future.

There is both an external and internal set of skills required for positive self-management. The external comes in the form of things like exercising, making a schedule, or writing down personal goals. The internal skills required include the management of one’s thoughts, understanding one’s negative and positive behavioural patterns, and learning to adapt in various settings. All of these take time and practice but are crucial tools we must acquire to reach our full human potential.

The Adolescent Goals of Self-Management

Every student will have different goals for themselves based on past experience, desires for their future and their need to fit in with their peer group. For adolescents, learning self-management techniques can improve behaviours by regulating moods. This helps teens control angry outbursts, ongoing anxiety, and other problem behaviours. For students who are worried about their grades, learning to manage their time and expectations can be of great benefit. For many students there is a strong desire to have the latest clothes or electronics. Learning to self-manage their time in order to get a job and then to manage their money so they can afford the things they want will provide them with a sense of accomplishment and encourage the drive to succeed in the future.

For some youth, failure to learn self-management can have dire consequences. In her book *The Teenage Brain*, Frances Jensen tells a story about a successful college student who died one night because he got drunk at a party, climbed a locked fence and drowned in a pool. (pg. 38-39). These kinds of things happen far too often and for adolescents struggling to fit in, drinking and drugs are two very dangerous ways that teens see as a viable avenue to friendships. Learning self-management techniques like goal setting can help to alleviate some of the poor choices that adolescents sometimes make. If our kids can control their impulses they might not take drugs or drink on a whim; they might be able to manage their current desires for future goals that could save their lives when they are unexpectedly confronted with dangerous situations.

Self-Management in the Classroom

Helping students achieve self-management requires purposeful, personal and thought provoking activities. According to Mooney, Ryan, Uhing, Reid & Epsteing (2005), “there are five commonly used self-management interventions: self-monitoring, self-evaluation, self-instruction, goal-setting, and strategy instruction.” (pg. 204). These interventions can include SMART goal setting (Appendix A), journal writing, and education/role-modeling on appropriate classroom behavior. The most important thing to remember when teaching youth self-management is that it is an active process and one that requires both thought and action. It requires teachers to be coaches, mentors and role models while assessing their own self-management techniques on a regular basis.

Social Awareness

Understanding Social Awareness

As much as self-management is an inward focused process, becoming socially aware requires an individual to have a global perspective of others, and an understanding of how one

creates connections and relationships that are mutually beneficial within their society. For someone to become truly socially aware, it is important to first be aware of one's own needs, surroundings and gifts they are able to share with others in meaningful ways. This sharing and understanding creates empathy for others, which is a sentiment that dates back to the earliest religious writings. The message is very simple and was a basis for all moral decisions when laws were being created and recreated in early civilizations. From the Christian Bible which states in Mark 12:31 (New International Version) that one should "love your neighbor as yourself", and in the Jewish Talmud one of the Ten Commandments, it says "what is hateful to you, do not to your fellow man", we learn that being aware of and sensitive to others needs is just as important to the betterment of society as our own needs.

Understanding whom one can go to for support is as important as building empathy for others. Learning to become socially aware takes place early on as we teach our children to go to a trusted adult when they are scared or nervous, or on the playground where kids learn to take turns and play games that require them to cooperate. Elementary schools value the teaching of pro social skills through programs like the Roots of Empathy, based on the research of Mary Gordon which brings in parents and babies to classrooms to show them the importance of being attached and in tune with what babies need. In their study on the impact of the Roots of Empathy program, Schonert-Reichl, Smith, Zaidman-Zait & Hertzman (2011) noted that "bolstered by evidence that empirically based curricula can prevent the onset of problem behaviours, such as anxiety and aggression, and decrease antisocial behavior many school districts throughout North America have strengthened their efforts to include programs that promote students' social and emotional competence." (pg. 2). Campbell (2015) quotes researchers from Penn State and Duke University who say, when talking about pro-social skills,

that “enhancing these skills can have an impact in multiple areas and therefore has potential for positively affecting individuals as well as community public health substantially.” The importance of being socially connected is supported by many research studies.

The Adolescent Goals of Social Awareness

While learning these pro-social skills in order for kids to be socially aware begins in the very early years of development, the adolescent years bring on changes that require families, schools and communities to continue the education. Adolescents are tasked with understanding the social norms of both peers and adults and working to fit into both. While more importance is placed on the beliefs and attitudes of peers, adolescents still need the safety and nurturing of their parents in order to feel safe enough to try new types of relationships, such as romantic ones. Experiencing a break up of a boyfriend, girlfriend or even a best friend who one has had for a long time can undermine an adolescent’s ability to be socially in tune and empathetic for a time, but with adult role models teaching youth about available supports, and time, the adolescent can soon return to the social life they desire. Community supports are especially important for adolescents who may feel unsafe or judged by their peers or family when confronting issues they are embarrassed about.

Unlike previous generations, adolescents must now learn social awareness on the Internet. The rules of engagement on the Internet have similarities to that on the playground with the exception of increased anonymity and proximity. Bullies are able to disguise themselves easier on the Internet and have 24-hour access to be aggressive and mean to anyone they choose. For adolescents the stakes of making a mistake are higher and have more dire consequences than previous generations. According to www.bullyingstatistics.org (2015), “there is a strong link between bullying and suicide, as suggested by recent bullying-related suicides in

the US and other countries... and that many people may not realize that there is also a link between being a bully and committing suicide.” (np). The Internet was initially touted as being a tool that would bring the world closer, and in an informative way it has, but it has also created a paradigm for youth where they can hide from parents and other supportive adults. This loss of face-to-face connection has changed the way we communicate with our students and without the immediate emotional feedback from facial and body expressions we are losing part of the message and connection we need to give to youth.

Social Awareness in the Classroom

While technology can be a fantastic tool for teaching and researching, the classroom is a great opportunity for students and adults to connect. Elementary schools in North America have understood for years how important it is to integrate SEL into the classroom, through programs like the Roots of Empathy, MindUp, and the FRIENDS program, but secondary schools are only now working to promote SEL in classes. In the executive summary *Learning by Heart*, Cervone & Cushman (2014) credit the Chicago Consortium on School Research (CCSR) (2012) for saying that “students must develop sets of behaviors, skills, attitudes, and strategies that are crucial to academic performance in their classes.” (pg. 2). In British Columbia secondary schools, SEL is being incorporated through both ministry-led and teacher-led initiatives. The Ministry of Education is promoting empathy and cultural understanding through First Nations history and communication classes. Students have the opportunity to learn about the aboriginal history and languages of Canada and through these courses students are learning the cultural context of many of their peers. Principals are beginning to use restorative justice techniques instead of suspensions to bring understanding and awareness to students who have been the perpetrators and victims of bullying. Teachers and counsellors sponsor clubs to help students

find other students with similar interests, and initiatives like Link Crew help orient incoming students to high school. In the Link Crew Handbook for Administrators (2010) it says that “your school climate will change because of Link Crew” and that the students involved will become “leaders, motivators, role models, and teachers.” (pg. 4). This type of club helps senior students understand the plight of new high school students, and it gives the new students a chance to see what a successful high school student looks like. Social awareness in the classroom is not a set of skills that students must learn. It is an integrative process, which includes involvement from every member of the class.

Relationship Skills

Understanding Relationship Skills

As an infant, having a relationship with someone who could take care of your physical needs was essential to your survival. As we age however, relationships provide support to our ever-changing physical and emotional needs. Having skills that foster healthy relationships is essential to our mental and physical health throughout our lifespan.

Creating a portfolio of good relationship skills is important because we need to adapt these skills based on the type of relationship we have with someone. Understanding the function or purpose of each relationship we have with others is integral to learning how to communicate effectively with others. One would not communicate the same way with a car salesman as they would with a romantic partner. They both might be fulfilling a physical need, but you would use a more business like tone with the car salesman than you would with a romantic partner. For children and adolescents, learning how to communicate effectively requires a lot of listening, negotiating, questioning and cooperating. In his book Emotional Intelligence, Daniel Goleman (2005) describes a child’s capacity to communicate as “the wish and ability to verbally exchange

ideas, feelings, and concepts with others. This is related to a sense of trust in others and of pleasure in engaging with others, including adults.” (pg. 194). Building up a child’s capacity to the point where they feel safe enough to speak honestly about their thoughts and feelings improves their ability to forge positive, healthy relationships with others.

Adolescent Goals of Having Relationship Skills

Relationships are such a daunting task for adolescents. It is a time of many changes and with those changes come new ways of thinking and behaving. Adolescents must adapt their relationship skills to match their understanding of what their role is within their peer and family groups. When building up relationship skills students must first identify and become comfortable with who they are as individuals, who they are within their social groups, and who they are when they are with their family. Once they have an understanding of their own values and interests, they must then work to understand how that connects them or repels them from others. Learning to assert one’s values or viewpoints effectively, setting boundaries and resisting social pressure are ways that adolescents learn how to have balanced and fulfilling relationships.

None of us can avoid being hurt or hurting others in a relationship. We are human and we make mistakes. Building relationship skills includes having a toolbox of strategies one can use to overcome adversity in relationships. In her book *Rising Strong*, Brené Brown talks about helping children and youth set emotional boundaries with their friends while honouring their own integrity and still being compassionate. Brown (2015) writes “can you be kind and respectful to your friend if he or she is hurting you... the easy solution is to be unkind and disrespectful back, or to walk away. The courageous answer is to look at this friend and say, I care about you and I’m sorry that you’re going through a hard time. But I need to talk to you about what’s okay and what’s not okay.” (pg. 127). This passage is a good reminder that

developing good relationships requires balance and strength. Balancing our needs with those of others and then having the strength to convey those needs, or meet the needs of others is how healthy relationships grow.

A common medium among adolescents for finding and building relationships is on the Internet. Social media sites and multi-player online games have changed the way people communicate with and relate to each other. Social media sites sometimes make it harder for someone to convey or receive the emotion behind a message because it comes across a screen and not face to face. Building relationship skills requires that people understand the emotion and intent behind any message. In a study done recently in California with two sets of sixth graders, two psychologists took the kids to a science and nature camp. The two groups of students attended the camp at different times and one set of kids had their electronic devices taken away and one set did not. The psychologists used photos and videos of actors and real people both at the beginning and the end of each camp to evaluate the students' ability to recognize emotions. According to psychologists Uhls et al., (2014) "face to face experiences must be emphasized in the socialization process." (pg. 392). Kids can't work on building effective relationship skills when they do not understand an action or reaction of another person. The message becomes confusing and often misinterpretation leads to frustration, anger and sometimes the loss of a relationship.

Relationship Skills in the Classroom

School and classroom settings provide unique ecosystems for students and teachers. While secondary students can choose their courses and after school activities, they are not given a choice for which teacher they have, or which students are placed into the classes with them. This system requires students to build up and rely on their relationship skills to be successful.

Teachers use things like class debates, group projects and class discussions to encourage a thoughtful exchange of ideas. Schools utilize special clubs, music, and physical education so youth can connect with each other with similar interests. Knowing that students will not always get along with each other, and sometimes make poor choices, many schools have incorporated restorative justice practices that focus on repairing or restoring relationships.

Responsible Decision-Making

Understanding Responsible Decision-Making

For many adolescents, making decisions can be an anxiety filled process. From the simplest decision like what to wear to school to deciding what college to attend, teens are filled with choices every day that can feel like a make it or break it challenge. Making responsible decisions requires an intricate balance of thoughts and feelings, information and the unknown and there is no science to making a right or wrong decision. As we mature into adulthood our experiences help shape what and whom we value and these experiences help us make responsible decisions.

The ultimate consequence of making responsible decisions versus irresponsible ones is the survival of humanity. It is not one big decision, but several little ones that we make each day that will affect our survival. In the end, we must make decisions based on our own values, but must also be willing to live with the consequences. Learning to become a responsible decision maker requires thought, communication and experience. This leads to knowing one's values, the values and needs of the greater community, and one's role within that community. Making responsible decisions is integral to living a fully realized and fulfilling life.

Having a deep knowledge of what we value and how that correlates to what others value will help us make the hardest decisions. In a personal finance blog about the risk versus reward

or cost-benefit calculation, Kim Petch (2015) says there are five questions you should ask yourself. “1. What are the potential rewards, 2. What value do you place on those potential rewards, 3. What are the potential risks, 4. What value do you place on those potential risks, and 5. What if you’re wrong?” These five questions were designed for making financial decisions but these questions can be used when making many decisions. Like SMART goal setting, these questions help you pinpoint exactly what the positive or negative outcome might be from your decision, and help you figure out ahead of time a plan of action in case you make the wrong decision. (Appendix A)

Adolescent Goals of Responsible Decision-Making

In the drive towards independence, making responsible decisions is a struggle that most adolescents have between their head and their hearts, but also between themselves and parents. Parents and teens will not always agree on a goal that a teenager has made because cultural, familial and economic factors have to be considered in the decision making process. These and other types of big decisions need to be made understanding what can and cannot realistically be done to achieve the goal. Communicating with adults who can give their perspective on the big decisions will help, however, the youth must be willing to own the work, ideas and responsibility required to achieve the goals or decisions that they have made for their life.

Adolescents do not always want to make responsible decisions. Psychology Today writer, Dr. Carl E. Pickhardt (2013) notes that “all decisions reduce freedom more than they create.” Many adolescents miss the innocence and freedom of childhood and would like to stay stuck in those days of not being responsible for themselves or others. For some, the idea that they will be responsible for taking care of themselves, and perhaps others, is daunting. For others, making a decision means closing the door to other appealing opportunities. The creative

mind of teenagers affords them many opportunities to see themselves in various career and life paths. While all these opportunities may be appealing, they can also be daunting when it comes to making a final decision about which path to choose. Pickhardt (2013) also says “mostly what I see are young people wrestling with two demons of decision making – indecision and ambivalence, overlapping issues, but slightly different.” Indecision, while it may be the more comfortable road to travel on, is costly. Leaving things to chance and hoping they will work out for the best allows a person to feel like they don’t have to take responsibility for what happens in their life. Ambivalence happens when a person has a choice to do one thing or another and the choices seem equally appealing. Understanding one’s values and consequences of choice can help both ambivalence and indecision.

Responsible Decision-Making Skills in the Classroom

In secondary schools the big decisions that youth have to make are usually around social events, peer groups, and career planning. There are many lesson plans and teaching units available to school staff that can help in teaching responsible decision-making, but creating meaningful dialogue and mentoring students is the most authentic way for students to understand the full scope of responsible decision-making. Making good decisions about peers and one’s consequent social life includes cognitive, emotional and behavioural processes. In a social policy report that reviewed trials of school based mentoring, Wheeler, Keller and DuBois (2010) write that “identity development may be fostered through role modeling, personal appraisals and feedback, and promoting participation in activities and settings that build the youth’s social and cultural capital.” (pg. 4).

As schools are a natural part of a youth’s social experience, it is imperative that we use this space and time to support responsible decision-making. We must be ready to give students praise

when they have made a responsible decision, and honest feedback, constructive criticism and support when they have made a poor one.

Why Adolescent Brain Research is Important

We must teach and model the skills in our schools that we want our students to learn and do. Schonert-Reichl & Miller (2006), state that “outside of the family, schools are one of the more pervasive socializing contexts, helping children to acquire the appropriate behaviors and values needed to become acceptable and productive members of society.” (pg. 149). If we do not take advantage of the adolescent years and the unique brain formation that occurs during this time to teach our student’s hearts, minds, and brains then we will miss an opportunity to teach them what it means to grow as a productive, self-reliant human. Recent developments in the field of neuroscience point to the belief that adolescence is a unique time in one’s life to take advantage of growth and development in the brain. Smith, Steinberg and Chein (2014) note that “around the onset of puberty, the human brain is known to undergo a major reorganization of neural structures, networks and functioning. While this dramatic neural reorganization begins early in adolescence, it does not occur uniformly across the brain.” (pg. 197). Connecting the dots between neurological, biological, emotional and social development during the adolescent period is going to provide a framework of effective support for adults who work with this unique population.

Research focused on adolescent brain development can have a huge impact on the mental health states of adults. If research is able to support the idea that the neural changes that take place during adolescence combined with the social context of adolescence can effect positive mental health states, then we will be better equipped to provide informed social education to our students and begin to have an effect on the psychological lives of future generations. In her

research article on adolescent brain development in normality and psychopathology, Luciana (2013) notes that “current studies are increasingly focused on neural and pubertal mechanisms that contribute to the regulation of affect and social behavior and how these mechanisms interact with cognitive processes, on the nature of cortical-subcortical interactions during development, and how these models and mechanisms inform our understanding of psychopathological conditions that emerge postpuberty... mechanisms of pubertal development, as well as potential changes in neurochemistry, are receiving particular attention.” (pg. 1326).

Sarah Jayne Blakemore has done extensive research on the adolescent brain since 2000, specifically covering social cognition and decision-making. In an article Blakemore wrote with Choudhury (2006) they “describe the cellular studies that first demonstrated anatomical brain development during adolescence,” followed by information they discovered through their research using fMRI imaging on social cognition and executive functioning of the adolescent brain. (pg. 296). They go on to describe the myelination and synaptic pruning process which takes place during adolescence that accounts for some of the unique changes we see in the brain. Choudhury and Blakemore further talk about how adolescent experiences shape their thoughts, and then in turn how those thoughts shape their experiences. These changes are unique to adolescents as they have more experiences than children to help build their neural networks, but less experience and synaptic connections than adults. We are just at the cusp of understanding how the human brain is affected by our social and emotional states and vice versa. While Blakemore, Choudhury and others have scientific support for the theory that the adolescent brain goes through unique changes, continued research into this field is necessary if we want the educational community to support programs that will help students to integrate their thoughts, behaviours and emotions.

Research supports the integration of cognitive, social and emotional systems for optimum health. On Dr. Daniel Siegel's Wikipedia page, interpersonal neurobiology is described as "an interdisciplinary view of life experience that draws on over a dozen branches of science to create a framework for understanding our subjective and interpersonal lives." Dr. Siegel is a well known child psychiatrist who has developed the term "mindsight" to explain his work in the field of interpersonal neurobiology which he says is "the ability to see the internal world of self and others." (pg. 35). Dr. Siegel's work is intended to help people understand the science behind feelings, and how we think and feel when we interact with others. It is intended to help people be more aware of their thoughts and feelings in order to have more control over them. In his book *The Developing Mind*, Siegel (2015) says that "being aware in our mental lives permits conscious choice. An aware mind can choose with intention how to shape neural and relational functioning." (pg. 38).

Using the scientific research about brain development, educators can capitalize on their knowledge of the biological function of the adolescent brain. Appendix B shows a semi-detailed map of the human brain showing the portions of the brain that undergo changes and development during the adolescent years. Each of these sections is responsible for distinct information processing, and each section grows and/or strengthens at different rates throughout childhood and adolescence.

The temporal lobes house the hippocampus and the amygdala. The hippocampus is responsible for keeping track of our long-term memory and is part of the limbic system. As memories continue to be added to the hippocampus through experiences, our brain makes more connections, which helps us understand more about how to react appropriately in different situations. The amygdala, another part of the limbic system, which is found inside the temporal

lobe is responsible for how we decode emotions and respond to stress. The amygdala works with, among other sections of the brain, the hippocampus in recognizing and connecting prior memories with current events and the emotions that follow. In a developing adolescent brain this could affect the way a person might react to danger or the ability to control one's anger in a highly charged emotional situation.

The frontal lobe is the last portion of the brain to develop. Healthline.com describes this portion of the brain as “the part of the brain that controls important cognitive skills in humans, such as emotional expression, problem solving, memory, language, judgment, and sexual behavior.” The lack of development in this area of the brain can account for many things that teenagers do or do not do. Youth who have not yet developed a good process for problem solving may find it hard to deal with issues that come up with friends. They may also struggle with making good decisions when feeling pressured by peers to do something risky. Mood swings, a desire to fit in, and an inability to properly judge or assess a person or situation can lead to many internal struggles for teens and relational struggles with peers and parents.

The central nervous system, which includes the brain and the spinal cord, is part of the bigger nervous system in humans that helps to control and communicate actions between our body and our brain. Numerous studies have been done both longitudinal and cross sectional showing consistently that grey matter volume slowly decreases while white matter volume increases during adolescence in both the parietal and temporal regions (Appendix C). Blakemore (2008) notes that the findings of a longitudinal study where the “anatomical brain development in participants aged between 4 and 21 years showed that grey-matter loss occurs initially in the primary sensorimotor areas and the spreads over the PFC (prefrontal cortex), the parietal and occipital cortices and finally the temporal cortex.” (pg. 272). She also says that “this finding has

been replicated a number of times, with other studies showing that decreases in grey-matter volume continue throughout adolescence, in particular in the lateral and superior PFC.” (pg. 272). In an interview on the PBS website, Jay Giedd, a neuroscientist at the American National Institute of Mental health, says that the “thickening of the gray matter peaks at about age 11 in girls and 12 in boys, roughly about the same time as puberty. After that peak, the gray matter thins as excess connections are eliminated or pruned.” Giedd describes this as the “use it or lose it” principle of brain development. The activities that our adolescents frequently take part in will stay in the grey matter and continue to grow connections to other parts of the brain. This is a risky aspect of adolescent brain development as the part of the brain that helps to control impulses, strategize and plan is not done developing until someone is well into their twenties. Jensen & Nutt (2015) discuss the National Institute of Health study who found that “the connectivity of the brain slowly moves from the back of the brain to the front...the teen brain is only about 80 percent of the way to maturity.” (pg. 37).

Summary

Knowing that the last part of the human brain to grow is in the frontal lobe where higher order thinking skills take place, and the majority of the connective pruning takes place during adolescence, we must steer our adolescents’ lives towards positive, healthy, connected, cooperative endeavors. The next chapter will focus on what we should do in secondary schools to support the changes occurring in the adolescent brain.

Chapter 3: Summary, Recommendations and Conclusions

Summary

“To be most effective, emotional lessons must be pegged to the development of the child, and repeated at different ages in ways that fit a child’s changing understanding and challenges.”

- Daniel Goleman (2005). pg. 273

Adolescents need social emotional education. The beauty of research on the topic is in its simplicity. Blakemore’s research in adolescent social cognition reveals a great deal about functional changes that take place in the adolescent brain based on social interactions. This research, combined with our understanding of adolescent developmental tendencies will help us create, develop and maintain a positive influence and connection in youth’s lives, which in turn will affect every relationship they have, both with themselves and others. This chapter will provide practical ideas for educators to use that will support the improvement of the social, emotional and academic lives of adolescents.

Recommendations

We need to learn how to make academic, social and emotional learning coexist in schools. We need everyone from the school board down to the kindergarten student to understand that learning is for life. When we start at the goal of learning for life, it is easier to create academic policies, district protocols, and curricula that focus not only on the academic or cognitive part of learning, but also on the meta-cognitive part of learning. The meta-cognitive part of learning answers the questions about how we learn, where as the cognitive answers questions about what we learn. We need to weave these two strands of learning in order to make each stronger both individually and together. We need to allow the social emotional learning to support the academic and vice versa.

This type of learning requires educators at every level to engage one another in order to create and recreate curricula that works for the students who attend their schools. People are unique, and there is no one size fits all program of education that will work for every school. There are however guiding principles that can help shape what teachers and administrators do to guide their students into successful adult lives. In their executive summary, Cervone & Cushman (2014) say that their “research affirms the critical role of shared norms, values, and language in shaping a sense of community in a school and helping students feel they belong.” (pg. 3). In order to create a common language, we need one voice that will research, create and champion the virtues of social emotional learning using the Canadian context. The CASEL Issue Brief about social and emotional learning in Canada (2013) says that we need to create an organization like CASEL in Canada in order to, among other things, “get the term SEL out there, help people to understand the benefits associated with the SEL approach and the evidence behind it, promote the universality of SEL and its multiple benefits and, help people understand that SEL is a way of interacting.” (pg. 7).

In the 2015 CASEL guide for middle and high schools, they say that, “only programs which include all four of the SAFE features are likely to be effective. SAFE = Sequenced, Active, Focused and Explicit.” (pg. 8). This guide presents an already researched set of programs that schools in the United States have used as well as a comprehensive set of principles and steps to take when implementing SEL in middle and high schools. I will use CASEL’s four features to support my own recommendations for educational policies in this chapter.

SEQUENCED

Whether it is information given to students, a speaker or activity that takes place in the school or just a daily interaction, the message or lesson must be tailored to the unique needs of the students at your school. From a global perspective lessons should be developmentally appropriate, and individual programs can be taught or given in a thoughtfully, ordered way so that lessons can be sequenced and practiced in a way that makes sense. Just like children need to learn to walk before they can run, adolescents need to learn basic social skills like making meaning out of emotions they have before they can learn to empathize with other's emotional states.

A Canadian organization like CASEL in the United States is needed so that research money, program development and implementation, public support and information sharing can be universally adopted. Creating a common language is imperative to creating any kind of sequentially developed SEL program as the information will ideally be given out and practiced over a number of years, and to a multitude of schools. It is also important because we want students to learn and practice the skills together in order to create personal and social harmony at school, in the home and in the community. Finally, a common language will help facilitate greater learning as goals and expectations will be clearly defined.

ACTIVE

While learning the new language of SEL, students should remember that practice makes perfect. Nobody can really learn to do something just by reading about it. In order for students to practice the social and emotional lessons that they learn, they must see it in action every day. Simply adopting an SEL program is not enough for students to really get engaged in the learning. It takes time, effort and the daily work of the whole school and community to truly effect

change. I have always believed that one could tell what the general temperament of a school is by the very first greeting that is made there. We never get a second chance to make a first impression and when the first greeting is negative or unwelcoming, I have to wonder why that is. Perhaps it is just a one off and that particular student or staff member is having a bad moment, but students and teachers who learn effective social or emotional strategies will be able to put that negativity aside to welcome a stranger into the school, or at least to help that stranger find what they are looking for. Active SEL takes place every day in the classroom, in the home and in the community. In order for the SEL strategies to become second nature, staff, parents and community workers that are engaged with students must be familiar with and utilize those strategies on a daily basis.

As it is important for adolescents to interact with peers and adults in various settings, schools should provide some unique ways to actively promote SEL outside the classroom. At school sporting events, students and staff can cheer on their team in ways that are respectful and demonstrate a great deal of maturity. This is also a great mentoring opportunity for younger siblings who might be attending the game. Clapping and cheering appropriately at drama or musical productions, or for guest speakers could also be considered an active learning opportunity. Charity work that includes the whole school can teach kids to think outside of themselves to see the needs of others and to find concrete ways they can help. This also gives students an awareness of themselves and what their needs might be and how that relates to the needs of the greater community.

FOCUSED

District leaders, administrators and teachers all have a stake in creating courses that are meaningful both to students and to the community at large. Understanding that we are educating

students so they can become responsible citizens of the world gives educators a sense of direction in how subject matter should be taught. The latest research on the adolescent brain and how it develops supports the idea that we should be teaching students more than just what to think. We need to teach students specific skills so they will understand how to think, plan, observe, and connect information. If a school is intent on making learning relevant and process-driven then the lesson plans should include strategies that build social emotional skills. This is a big picture way to incorporate SEL into the school system. In the classroom, it can include things like group work that requires every person in the group to do a small part and then for the students to negotiate how to present the information to the teacher, or buddying up older students with younger ones in a music class to mentor them on instrument care.

I would like to see districts utilize team teaching and project-based strategies across different disciplines with small groups or classes. This kind of learning focuses students on more than just the subject of study. It requires students to understand their strengths and weaknesses compared to others in their group, and it helps them learn how to communicate effectively and to negotiate wisely to get the job done. It also teaches students time management and responsible decision-making. Teachers in this type of classroom can actively teach these skills to students before teaching the actual subject matter. They can create a matrix for assessing these skills with or without the students and then they can reassess how they did with these SEL skills at the end of any project. This type of class allows students to think, act and react on their SEL skills as well as learn a subject or two.

EXPLICIT

Each of the five competencies discussed in chapter two requires a specific set of skills to obtain mastery. Some of the skills may overlap, but it is important to remember when creating

programs and protocols that the goal of any lesson or skill set must be clearly established. If we want to be able to assess whether our SEL programs and curriculum are helping, we must clearly define the specific skill we are trying to teach. Goals and objectives should be clearly stated at the beginning of any curriculum so that skills can be learned and practiced in the correct context. Staff should also utilize these skills regularly and teachable moments should be seen as an opportunity to show students how to put specific skills into action. At the school level, an SEL goal as part of the school growth plan can bring to the forefront how the school will embrace SEL.

At the district level this could mean that student needs are assessed at each school every year and programs are put into place based on those specific needs. School administration could put into place specific protocols for staff to follow when students start to fall behind. Administration and staff could also put into place a restorative justice program that teaches students empathy through perspective taking. Teachers of course can utilize programs like FRIENDS or MindUp to teach specific skills, but they should understand and explain to the students exactly what they should be learning from the program. Mastery will come with specific goals, actively practicing the skills, and having connected, compassionate adults who are utilizing the new skills in meaningful ways with the students.

The Role of the School Counsellor

School counsellors are connectors and facilitators. They connect students to positive thoughts, experiences, and people, and encourage students to work towards a self-fulfilling life. A school counsellor provides support and unconditional regard to students while utilizing teaching and administrative staff, parents and outside community resources to facilitate the best possible academic and social emotional outcome for the student. Some of the ways counsellors

can support student success is by working closely with administration and staff to identify students who are at risk of academic or personal trouble. Both informal and formal processes like weekly school-based team meetings, casual conversations, and attendance checks can help counsellors identify what students may need help. Counsellors should be checking in with students who have been flagged to ascertain what kind of support they need. Continuous and regular conversations with the student should take place in order to build trust and rapport. If there are no immediate safety concerns, the counsellor should continue to engage in conversation with the student and then connect them, if necessary, to a resource that would best suit their needs. Even after an outside agency has been contacted and engaged by the student, regular check ins from the counsellor are imperative so that there is a consistency of care, and so that staff and administration can be informed of any new information that may need to be shared.

The counsellor's role is to keep up to date with the needs of the individual students they serve, and to understand how their school, community and family affect their students' lives. The school counsellor must seek to understand student timetabling, staff and student personalities, student goals, time and physical constraints, and financial realities. The school counsellor must continuously update their contacts and lists of community resources. Understanding the process of how a student gets referred to various agencies, and the specific details like the who, what, where, when and why are important so that students can be matched with the best possible service available to them. Community services available to students and/or families include workshops, courses and individual or group therapeutic sessions. As a student's family life plays a large role in their mental and physical health, it is imperative to understand the family history of the student. By understanding the family's dynamics, a counsellor can give students a better perspective on their role and place within their own family.

This perspective can help to minimize incorrect assumptions, and to improve communication and strengthen the bonds within the family unit.

To summarize, school counsellors work as advocates for their students. Within the school system school counsellors are educators, connectors, mediators and bridge builders wherever necessary to promote and provide student success. Through research, collaboration and understanding, the counsellor provides services and programs that promote student success in academic and social emotional learning.

Conclusions

There are so many ways to incorporate positive social and emotional learning strategies for students that it can become overwhelming. We need a cost-effective and personally effective way to streamline the research and develop tools and programs based on the research. I would like to advocate for a SEL system that is like the Canadian healthcare system. It should be a publicly funded organization that is overseen by the federal government. Each province or territory would have access to all the same programs, but they could choose which ones to incorporate based on their particular province's needs. This organization would consist of medical and mental health professionals, and educators that can incorporate ongoing research into a common language, tips and programs for schools, health care facilities, daycare programs and community centers.

In order for the strategies we adopt and the lessons we teach to become a part of our everyday lives, we should begin the process while our children are infants. We can foster connections with prospective parents by making the emotional health of their children just as important as their physical health. Promote the language of social/emotional health in hospitals and maternity centers and among midwives through pamphlets, classes and modeling the

behavior of empathic care. As our children grow we need to provide programs, social media links and literature to parents and day care providers that model and promote positive social and emotional health practices. Once children get to elementary school they should already be familiar with some of the language around personal and social responsibility and emotional well-being. Once in school there should be developmentally appropriate programs in place that continuously move children forward in learning the five SEL competencies.

It will take years for the general public to understand, see the large effects of and to buy into a program like this. It will take a great deal of money, time and effort from a dedicated group of people who see and understand what a difference this can make. It will take a major shift in how we perceive education and how we deliver it. Those of us who are self-aware, who can manage our own thoughts and behaviours, who have the ability and experience to empathize with others and who can listen and negotiate through effective communication must make the responsible decision to pass on these skills to future generations. Having this knowledge will empower people to take control of their own emotions, thoughts and behaviours and will help them to gain a grounded and realistic perspective on their role in this world.

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Appendix

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Appendix A: Smart Goal Map Template

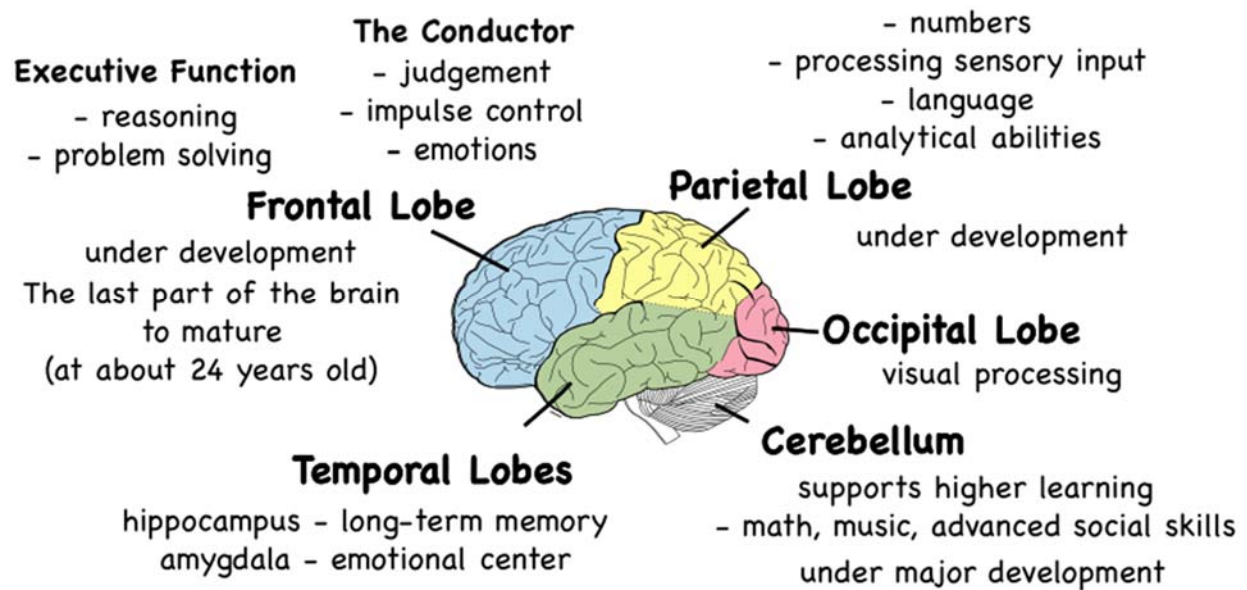
SMART Goal Template

A SMART goal meets the criteria of the terms of the acronym SMART: Specific, Measurable, Attainable, and Relevant.

Acronym	Description	Developing SMART Goals
S	Specific	<p>Goals are clear, detailed and unambiguous. A specific goal will usually answer the five "W" questions:</p> <ul style="list-style-type: none"> • What: What do I want to accomplish? • Why: Specific reasons, purpose or benefits of accomplishing the goal. • Who: Who is involved? • Where: Identify a location. • Which: Identify requirements and constraints.
M	Measureable	<p>This term stresses the need for concrete criteria for measuring progress toward the attainment of the goal. If a goal is not measurable, it is not possible to know whether progress toward successful completion is being made.</p> <p>A measurable goal will usually answer questions such as:</p> <ul style="list-style-type: none"> • How much? • How many? • How will I know when it is accomplished?
A	Attainable	<p>This term stresses the importance of goals that are realistic and attainable. While an attainable goal may stretch the goal-setter in order to achieve it, the goal is not extreme. An attainable goal may cause goal-setters to identify previously overlooked opportunities to bring themselves closer to the achievement of their goals.</p> <p>An attainable goal will usually answer the question:</p> <ul style="list-style-type: none"> • How: How can the goal be accomplished?

R	Relevant	<p>A relevant goal must represent an objective that the goal-setter is willing and able to work towards.</p> <p>A relevant goal will usually answer the question:</p> <ul style="list-style-type: none"> • Does this seem worthwhile?
T	Time Bound	<p>The fifth term stresses the importance of giving goals a target date. A commitment to a deadline helps focus efforts on completion of the goal on or before the due date. Timeliness is intended to prevent goals from being overtaken by the day-to-day crises that invariably arise in an organization.</p> <p>A timely goal will usually answer the question:</p> <ul style="list-style-type: none"> • When? • What can I do 6 months from now? • What can I do 6 weeks from now? • What can I do today?
R	Reevaluate Reward	<p>As goals are being developed and phases of different goals are being accomplished, reevaluate each goal to make sure they are still relevant and attainable. Once goals have been accomplished, celebrate in their accomplishment and start developing new SMART goals.</p>

Appendix B: Map of Adolescent Brain



Appendix C: Tables and Graphs of Grey Matter Volume in Adolescents

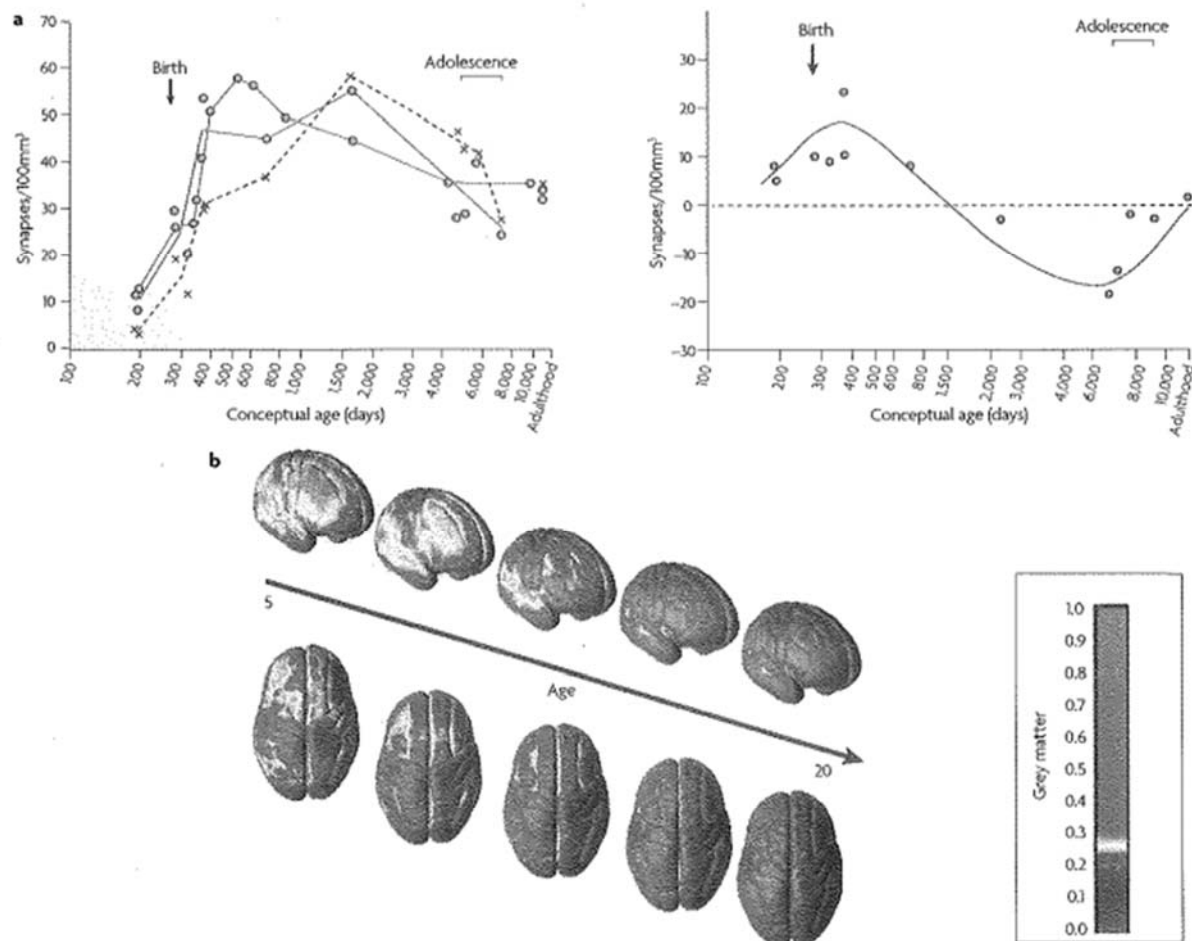


Figure 4 | Development of synaptic density and grey-matter volume in sensory and frontal regions. a | The left-hand graph shows the mean synaptic density in the primary auditory cortex (red circles), the primary visual cortex (green circles) and the prefrontal cortex (PFC) (specifically the middle frontal gyrus; crosses) in post-mortem human brains at different ages. The x axes show conceptual age in days from 200 days post-conception to 10,000 days post-conception (approximately 27 years). Synaptic density increases in all three regions in early childhood, but synaptogenesis is most prolonged in the prefrontal cortex. This is further demonstrated in the right-hand graph, which shows the difference in synaptic density between the auditory cortex and the middle frontal gyrus (purple circles) plotted against conceptual age. The line represents a curve of best fit for the data. Thus, although the peak synaptic density in the auditory cortex occurs early (at approximately three months after birth), the peak synaptic density in the PFC occurs significantly later. **b** | Right lateral and top views of the dynamic sequence of grey-matter maturation over the cortical surface between 4 and 21 years, as viewed in a longitudinal MRI study in which 13 children were scanned every 2 years for 8–10 years. The side bar shows a colour representation in units of grey-matter volume, with shades of blue corresponding to grey-matter loss. The images show that grey-matter loss occurs initially in the primary sensorimotor areas and then spreads over the PFC, the parietal and occipital cortices and finally the temporal cortex. This sequence can be viewed in movie form online — see REF. 71. Part **a** reproduced, with permission, from REF. 65 © (1997) Wiley-Liss. Part **b** reproduced, with permission, from REF. 71 © (2004) National Academy of Sciences.

Appendix D: Ideas on how to Promote Social/Emotional Learning in Secondary Schools

Self-Awareness: The ability to accurately recognize one's emotions and thoughts and their influence on behaviour. This includes accurately assessing one's strengths and limitations and possessing a well-grounded sense of confidence and optimism. (CASEL, 2015).

Personnel	SEL Competency: Self-Awareness
Administrators	<ul style="list-style-type: none"> - Provide time and space for counsellors to prepare for and do assemblies and talks on parent/teacher nights. - Collaborate with counsellors on meetings with students who have made poor behavioural choices. - Meet weekly with counsellors to identify individual or groups of students that are showing a lack of self-awareness. Help provide proactive solutions to issues.
Teachers	<ul style="list-style-type: none"> - Give distressed students opportunities and support in controlling their emotions in class, or to go see the counsellor or another trusted adult in the school that can support them. - When possible, use the Thought/Emotion/Behaviour triangle to teach students about self-awareness. For example, in a social studies or English class you could use this model to identify how a historical figure or character in a story behaved because of their thoughts and emotions. See if they can fill out a triangle based on a different character. Further identify how that character's confidence or lack thereof in themselves affected their thoughts, emotions and behaviours. - Attend School Based Team meetings to help identify and propose solutions for students who are making poor behaviour choices.
School Counsellors	<ul style="list-style-type: none"> - Together with student leaders, create posters for the school that are based on the Thought/Emotion/Behaviour triangle. - Have Grade Assemblies after the first and second report cards and use the posters from around the school to talk to students about how their thoughts about school, and their daily emotions can affect their behaviours. During the assembly have students write down one academic strength (I am good at math, or I am a good artist) and one academic limitation (I don't understand biology or I have test anxiety) they feel they have. During the assembly brainstorm ways they can either use their strength or help to alleviate the limitation. After the assembly, have students make posters of the student's ideas and put them up around the school. Add them to the school website for parents to look at. Contact the local youth centers to see if they would also put up the posters. - During Parent/Teacher meeting nights, give a talk to the parents about the same things the students heard in the grade assemblies. Give parents ways to support their students, for example healthy eating, getting enough sleep, providing a safe environment.

Self-Management: The ability to regulate one’s emotions, thoughts and behaviours effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working toward achieving personal and academic goals. (CASEL, 2015).

Personnel	SEL Competency: Self-Management
Administrators	<ul style="list-style-type: none"> - Mentor good self-management to staff by managing one’s own stress. - Create opportunities for staff to work towards achieving professional goals through Leaves of Absence, professional development speakers/workshops, and collegial collaboration. - Provide immediate, empathic feedback to students who appear distressed or who are lacking the motivation to attend school. Seek to understand the story behind the student’s behaviours, and collaborate with the counsellor before setting up any type of punishment. - Collaborate with staff to come up with a school’s code of conduct that teaches and supports student self-management.
Teachers	<ul style="list-style-type: none"> - Break down projects into small, specific deadlines and tasks so that students learn how to manage their time better. - For students that lack or have reduced impulse control create a method of communication. For example, a hand signal or phrase that would indicate to you or the student that a time out is needed. Organize this at the beginning of the year to minimize disruption to the class. - Create a set of class rules at the start of the school year with the students. This will help them to “buy in” to the idea that self-management will lead to class-management and that they all have an important role to play.
School Counsellors	<ul style="list-style-type: none"> - Teach students through assemblies, classroom or one to one meetings about the importance of regular study habits in order to manage their stress. - Meet with teachers at the beginning of each school year to brainstorm ways to help students manage their stress, time, homework and impulses. Create posters to hang in classrooms of expectations of students and how teachers can help. - Provide a safe, quiet space in the counselling suite for students to cool down when they are upset. Support them by teaching them ways to control their anger so that they will be able to self-manage in the future. Some examples are: techniques to slow down breathing, counting to 10, writing a letter or drawing a picture, or journal writing.

Social Awareness: The ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behaviour, and to recognize family, school and community resources and supports. (CASEL 2015).

Personnel	SEL Competency: Social Awareness
Administrators	<ul style="list-style-type: none"> - Help to create an atmosphere at the school that is culturally sensitive. Have welcome signs put up in several languages that the student population would recognize, or hang flags in the school that represent the student population. - Work closely with local police offices to promote safe behaviours in the school and community. This could include working with individual students, groups of students or having a liaison officer give presentations to schools either as a preventative measure or when the need arises. - Provide a space for students who might need a quiet area for prayer. - Provide an agenda for students and parents that contains the school's code of conduct, specifying a common language and unambiguous expectation for student behaviour.
Teachers	<ul style="list-style-type: none"> - Wherever possible incorporate learning about other cultures in the curriculum. - Use classroom rules as an avenue for discussion about social and ethical behaviour and how the rules might be different in a community setting versus a classroom setting. - Athletic and Fine Arts teachers can both mentor and teach appropriate behaviour at school games and at concerts, plays or art galleries.
School Counsellors	<ul style="list-style-type: none"> - Collaborate with students, parents and community resources to provide opportunities to students to become more aware and active within their own community. Put posters and pamphlets up around the counselling suite from organizations like community mental health partners, crisis centers and after hour phone numbers, cultural, athletic, art and youth centers and needs based organizations like the local food bank. - Create or sponsor projects that every student in the school could take part in that will benefit the school or community that surrounds the school. For example, older students mentoring and leading younger students in games or activities that promote teamwork, or collecting canned goods for the local food bank. - Be a good role model by taking the time to build relationships with staff and students that will help you to have a broad perspective of the school community. Use this information to build empathic relationships with others and between others in the school and community.

Relationship Skills: The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed. (CASEL 2015).

Personnel	SEL Competency: Relationship Skills
Administrators	<ul style="list-style-type: none"> - Provide regular opportunities for staff to meet with you and each other, both in work and social contexts that create a sense of cooperation and community. - If conflict arises between staff and students provide constructive mediation opportunities in order for the problem to be solved. - Be present and seen in the school in order to role model to students and staff what good relationship skills are. Being seen in the school will bring organic opportunities for conflict resolution, active listening, encouraging personal growth and many other teachable moments.
Teachers	<ul style="list-style-type: none"> - Provide students the opportunity to work in teams. Include in marking not only what the team worked on but also how they worked with each other. Guide students in an activity that includes self-reflection on how well they did as a team member on the project. - Wherever possible use age appropriate cases or stories to teach students about healthy relationships. English, film, or theatre or social studies classes could incorporate stories and/or current events that would resonate with adolescents and teach them about healthy relationships. A biology teacher could incorporate adolescent brain development into their curriculum to teach students about what happens in their brain when they are communicating with each other.
School Counsellors	<ul style="list-style-type: none"> - Like administrators, you need to be present in the school. Look for opportunities to have organic, meaningful rapport with students and staff. - Work with students who are interested in conflict resolution to create a team of students that will prepare and utilize a script that will help their peers negotiate conflict in a safe and private manner. - Help students when they have conflict with peers, parents or staff at school. Guide them in perspective taking, self-awareness and conflict resolution. Role model good relationship skills by giving them unconditional positive regard. Support students regularly by providing the time and space to listen to them, then offer them different ways of viewing things that will allow them to adapt and grow their own relationship skills. - Be prepared to be a bridge between students and parents, students and staff or students and peers. Provide conflict resolution strategies based on the student's strengths.

Responsible Decision Making: The ability to make constructive and respectful choices about personal behaviour and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others.

Personnel	SEL Competency: Responsible Decision Making
Administrators	<ul style="list-style-type: none"> - Work closely with students who have made a poor decision to come up with a consequence that will best help them learn to not make the same mistake again. - Connect students with the school counsellor or another staff or community member that can help the student understand why and how their poor decision might have greater consequences than they thought of. - Utilize the school's code of conduct to create and use a common language to promote responsible decision making. - Implement and guide a staff safety committee to promote and maintain rules and regulations around safe conduct of all people in the school.
Teachers	<ul style="list-style-type: none"> - Use curriculum wherever possible to teach students about self and others. Some ideas include technical education teachers going over safety precautions, social studies and law teachers discussing and reviewing decisions that various governments in history have made, and PE teachers can teach about athletes who have compromised their personal integrity by doping in order to win. - Encourage students to make responsible decisions by discussing things like seating arrangement and their impact on personal and classroom management, class rules that take into consideration the safety and well-being of self and others or by brainstorming with students the consequences of handing work in late or incomplete. - Work with school counsellors to repair relationships when someone in the class has made a poor decision that has affected others.
School Counsellors	<ul style="list-style-type: none"> - Use current events and/or the population of your school to provide workshops, speakers or special guests that can help adolescents understand how their decisions can have long lasting consequences. - Use the school's code of conduct and the common language found within to assist students when they are asking your help to make a big decision. Role play with students to allow them to see various outcomes that could occur based on the decision they make. Help students to see responsible decision making from a personal and global perspective. - Create and/or utilize peer mentoring programs that help senior students role-model responsible decision making to younger students. Work closely with senior students to prepare them for working with younger students so their interactions are age appropriate, safe, respectful and inclusive.

