

BROADER MEASURES OF SUCCESS:

SOCIAL/EMOTIONAL LEARNING

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1. THE IMPORTANCE OF SOCIAL AND EMOTIONAL DEVELOPMENT

We have seen a revolution – or perhaps evolution would be a more appropriate term – in educational thinking over the past twenty years. The seeds for this transformation were laid in the 1960s and '70s, in the seminal works of thinkers such as Sylvan Tomkins (1962, 1963), John Bowlby (1965, 1969), Erik Erikson (1968), and Margaret Mahler (1975). Instead of seeing reason and emotion as belonging to separate and independent faculties (the former controlling the latter), they argued that social, emotional and cognitive processes are all bound together in a seamless web.

The scientists who followed in their footsteps have greatly deepened our understanding of the complex interrelationships that develop between these processes (e.g., Fogel, 1993; Gottlieb, 1997; Greenspan, 1997; Frijda, 2000; Campos, Frankel, & Camras, 2004; Fogel, King, & Shanker, 2007). Neuroscientists have now shown that the systems in the prefrontal cortex subserving social and cognitive processes are inextricably tied to the sub-cortical systems subserving emotional functioning (Damasio, 1996; Schore, 1996; LeDoux, 1998; Tucker, 2007; Davidson, 2012; Siegel, 2014).

This 'dynamic systems' view of the mind and brain (Ridley, 2003; Lewis, 2005; Shenk, 2010) has inspired an equally profound revolution in educational thinking. The Social and Emotional Learning (SEL) movement emerged at a conference hosted by the Fetzer Institute in 1994, giving birth to the Collaborative for Academic, Social and Emotional Learning (CASEL). An article that appeared in the October 2, 1995 issue of TIME magazine epitomized the speed at which this new way of thinking was taking hold. In bold letters on the front cover they raised the question, "What's Your EQ," and below this the answer: "It's not your IQ. It's not even a number. But emotional intelligence may be the best predictor of success in life, redefining what it means to be smart."

Developmental psychologists began looking carefully at the role of social and emotional functioning on children's psychological wellbeing (e.g., Izard *et al.*, 2001; Eisenberg *et al.*,2004; Denham, Ji, & Hamre, 2010). Meanwhile, educational theorists were pursuing the idea that emotional intelligence is more important than IQ as far as academic attainment is concerned (Salovey & Mayer, 1990; Goleman, 1995; Shonkoff & Phillips, 2000; Denham, Wyatt, Bassett, Echeverria, & Know, 2009) and arguing that it is equally important to understand those aspects of the school experience that enhance social and emotional development (Darling, Caldwell, & Smith, 2005; Feldman & Matjasko, 2005).

Two decades of research have now settled on five core aspects of socialemotional functioning that are thought to be critical for a child's wellbeing and educational attainment. These are:

- 1. Self-awareness
- 2. Self-management
- 3. Social awareness
- 4. Interpersonal relations
- 5. Decision-making

This paper explains why these five core competencies are so important for success in life and school; considers the many ways in which schools promote the development of these core competencies; and reflects on how measuring Social and Emotional Learning in schools can further enhance this critical benefit of the educational experience.

2. THE FIVE 'CORE COMPETENCIES'

2.1 SELF-AWARENESS

Self-awareness refers to students' ability to identify and describe their own emotions; to understand why they feel the way they do; to recognize what others are feeling and why; to maintain an accurate sense of their capacity to succeed in a variety of situations; and to understand their own needs and values (Yoder, 2014). It is also important that students develop an accurate understanding of themselves, such as their learning styles, strengths, and areas that need improvement (Zimmerman, 1990).

Study after study has shown that when this core competence is higher students score higher on life satisfaction measures; stay in school longer; and have higher levels of social and professional success (Berk & Shanker, 2005). Students who do not possess this core competence are more likely to experience increased mental health problems and lower academic achievement (Cichetti, Ackerman, & Izard, 1995; Eisenberg *et al.*, 1995; Zimmerman, 1995; Eisenberg *et al.*, 1997; Saarni, 1999; Blair, 2002; Southam-Gerow & Kendall, 2002; Denham, von Salisch, Olthof, Kochanoff, & Caverly, 2002-2004; Pollatos, Gramann, & Schandry, 2007). Furthermore, students with poor self-awareness show markedly higher levels of externalizing disorders, such as aggression, bullying, oppositional defiance, and conduct disorder (Zahn-Waxler, Iannotti, Cummings, & Denham, 1990; Factor, Rosen, & Reyes, 2013).

2.2 SELF-MANAGEMENT

Meta-cognitive skills – skills for managing one's own learning and emotions – are often included in this competence. These include such skills as being able to monitor and manage academic goals and develop personalized learning strategies to master academic material. Students need to know how to form strategies for setting short and long-term goals; plan thoughtfully and thoroughly; stay on task; manage their personal and interpersonal stresses; and develop positive motivation and a sense of hope and optimism.

More generally, this competence refers to the student's ability to deal with stress and manage emotions. It is particularly important that they learn how to verbalize and develop strategies to manage their anxiety, anger, and depression. They need to acquire skills for controlling their impulses, and where needed, their aggressive or antisocial tendencies. Moreover, as important as it is for some students to develop 'down-regulating' strategies to help themselves calm down when they are agitated or angry, it is no less important to help them acquire constructive 'up-regulating' strategies for addressing their feelings of listlessness or lethargy.

Numerous studies have established that the better a student masters this competence the higher their levels of self-esteem and self-efficacy. Students who do not develop this core competence are at a significantly greater risk of emotional problems, internalizing and externalizing disorders, attentional problems, and

poor academic outcomes (Mischel, Shoda, & Rodriguez, 1989; Kochanska, Murray, & Coy, 1997; Saarni, 1999; Tremblay, 2000; Vitaro, Brendgen, & Tremblay, 2002; Silk, Steinberg, & Morris, 2003; McCain, Mustard, & Shanker, 2007; Caprara *et al.* 2008; Moffitt *et al.* 2011; Spoon, Cicchetti, & Rogosch, 2013). Students who do not develop this core competency are also at a heightened risk of physical health problems as Ferguson notes in his paper on physical and mental health.

2.3 SOCIAL AWARENESS

Students must be able to take others' perspectives into account and to empathize with others. They need to be able to predict others' feelings and reactions, as well as recognize emotional cues to their own actions or utterances (Loverland, 2005). They also need to learn how to adapt to the mood of a group and understand – and respect – other points of view. Especially important in this regard is to recognize and appreciate diversity.

The recent review by Eisenberg , Spinrad, & Morris (2014) reveals that well-developed social awareness is associated with positive social adjustment, reduced bullying, better prosocial tendencies, and enhanced emotion regulation. Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman (2012) have shown that fostering this core competence results in more prosocial behaviour. Lovett & Sheffield (2007) also showed that low levels of this core competence are associated with higher levels of aggression in adolescents.

2.4 INTERPERSONAL RELATIONSHIPS

Competence in interpersonal relationships involves students' ability to develop and maintain healthy friendships; to address interpersonal conflict; to be aware of their own communication skills; to manage and express their emotions effectively; and to build relationships with those who can be resources when help is needed. These attributes are vital for students' long-term success. Students need to learn how to engage in cooperative learning and work toward group goals, how to develop leadership skills, and how to resist inappropriate social pressures. The abilities to resist negative social pressures, resolve interpersonal conflict, seek help when needed, and work well with others are important dimensions of interpersonal relationships.

Children who score low on this competence have been shown to have: poor interpersonal skills, generally low levels of self-esteem and lower levels of happiness (Rigby & Slee, 1993); higher levels of persistent antisocial behaviour and aggression (Zafarakis, 2013); trouble building strong relationships and managing inter-personal problems (Dunn & Herrera, 1997; Denham, 1998; Dunn & Hughes, 1998); and difficulty functioning effectively as part of a team (Eccles & Barber, 1999; Larson, 2000; Cherniss, 2000; Dulewicz & Higgs, 2000). Children who score high on this competence tend to be more prosocial and cooperative with higher levels of self-esteem, happiness, and an increased liking for school (Sroufe, Schork, Motti, Lawroski, & LaFreniere, 1984; Tinto, 1993; Ladd, Birch, & Buhs, 1999; Denham et al. 2001; Lemerise & Harper, 2014).

2.5 DECISION MAKING

Decision making refers to the ability to develop appropriate strategies to solve problems, whether academic, personal, or social. Students need to learn how to identify problems when making decisions and to generate alternatives. There is a strong personal and prosocial dimension to this competence: students need to become more self-reflective and self-evaluative; learn how to make decisions

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Students who develop this competence have been shown to have clear and motivating goals (Wyman, Cowan, Work, & Kerley, 1993; Tinto, 1993; Anderman & Midgley, 1997; Heckhausen, Wrosch, & Schulz, 2010), and rely on ethical standards when making their decisions. (Dienstbier, 1984; Colby & Damon, 1992; Kurtines & Gewirtz, 1996; Saarni, 1999). Students who score low on this competence have less capacity to manage stressful events and to develop effective strategies for addressing interpersonal and academic challenge (Compas, Malcarne, & Fondacaro, 1988). They also tend to engage in higher levels of antisocial, self-destructive, and socially disordered behaviour (Elias, Gara, Schuyler, Branden-Muller, & Sayette, 1991).

3. HOW SCHOOLS CAN FURTHER PROMOTE SOCIAL/EMOTIONAL LEARNING

3.1 SCHOOLS ARE A NATURAL SOCIAL/EMOTIONAL LEARNING ENVIRONMENT

Canadian schools are responding vigorously to both the need and the opportunity to enrich the core competencies of Social and Emotional Learning. The Mental Health Strategy for Canada, released in 2012, has resulted in a number of important developments, such as the appointment of School Mental Health Professionals, Mental Health Literacy programs, and Caring and Safe School initiatives. These advances, together with formal SEL instruction are highly effective at enhancing students' self-awareness and self-management. Efforts to promote safe, caring and inclusive school environments, together with anti-bullying and restorative justice practices are having an important impact on students' social awareness and interpersonal relationships.

These recent innovations augment the many ways in which schools naturally enhance the development of students' core social and emotional competencies. So much more is involved here than, for example, mastering the rules for appropriate classroom behavior. When students are asked to assess their effort or reflect on how they might have made an argument stronger they are being coached in self-awareness. When they must address the consequences of failing to prepare properly for a test or complete an assignment they are learning an important lesson in self-management. Listening to other students answer questions or working with classmates on a project develops social awareness and interpersonal skills. Academic material itself develops such core competencies as learning how to retain information. Literature, for example, teaches important lessons about ethical standards and decision-making. Extracurricular activities – sports, music, drama, community service –are important for learning to work cooperatively with others as well as for experiencing team spirit.

3.2 THE RISE OF SEL

In order to augment these natural benefits of the educational experience, more and more schools have introduced Social-Emotional Learning (SEL) programs into their curriculum. The two fundamental principles underlying these programs are:

- 1. Social and emotional competencies are as important as more formal academic skills
- 2. Students can learn social and emotional competencies in the same ways that they learn formal academic skills.

These programs have resulted in significant psychological and academic benefits, and have enabled us to develop a much clearer picture of the social and emotional benefits of school and how to enhance these effects. There are a number of ways in which the most salient features of these programs can be incorporated into the normal operations of schools.

3.2.1. Child Development Project (CDP)

The Child Development Project (CDP) is a comprehensive elementary-school based (K - Gr. 6) program that emphasizes social awareness, interpersonal relationships, and positive development. It was originally developed with the San Ramon and Hayward school districts in California by the Developmental Studies Center in Oakland. There is promising evidence that the program is effective in terms of reducing anti-social behavior, drug and alcohol consumption, while enhancing reading comprehension and academic achievement test scores. In those schools where it is effective (approximately half) the effect sizes range from 0.41 to 1.10. In those schools where it was not effective, effect sizes ranged from -0.06 to 0.20. This disparity enabled researchers to look for the critical mediating variable. Further analysis showed that the program produced positive effects to the degree that it was successful in establishing a caring community in the school (Solomon, Watson, Delucchi, Schaps, & Battistich, 1996; Solomon, Battistich, Watson, Schaps, & Lewis, 2000; Battistich, Schaps, Watson, Solomon, & Lewis, 2000; Battistich, Schaps, & Wilson, 2004).

One of the most important lessons that we can take from CDP is the importance of having class meetings to talk about goals; learning activities for partners and small groups; and open-ended discussions on literature that are designed to enhance students' social, ethical, and intellectual development. CDP demonstrates the importance of schools striving to become "caring communities" where children feel valued, connected, and responsible to others. The project teaches us that schools can achieve this goal with classroom and school-wide community-building activities, an engaging curriculum, cooperative learning approaches, and an emphasis on literacy development.

3.2.2. Promoting Alternative Thinking Strategies

Promoting Alternative Thinking Strategies (PATHS) is a multi-year, universal research-based SEL program for children in pre-kindergarten to Grade 6. The program promotes self and social awareness, self-management, interpersonal and decision-making skills.

Children receive lessons three times per week for a minimum of 20-30 minutes per session. These lessons teach children how to identify, label, express, assess, manage, and understand the difference between feelings and behaviours. PATHS also teaches children about controlling impulses, delaying gratification, managing stress, self-monitoring, understanding the perspective of others, problem-solving, decision-making, and developing a positive attitude towards life.

Evaluated in several large randomized control trials (Greenberg et al. 1995), PATHS is effective in increasing academic performance and positive social behaviour, improving school climate and emotional attitudes and skills, and decreasing conduct problems and emotional distress. Effect sizes range in the small to moderate .15 - .24 range (Crean & Johnson, 2013). Where PATHS has been implemented, there have been significant improvements in social problemsolving skills, emotional recognition skills, reading achievement and non-verbal planning skills, and teacher and parent-rated social competence. Teacher ratings of behavior indicate significant improvements in social competence and in frustration tolerance (Greenberg & Kusche, 1998). Significant improvement for 5 to 7 year olds has been observed on all five subscales of the SDQ: emotional symptoms, conduct problems, hyperactivity, peer problems, and consideration, for the treatment schools but not for the comparison schools (Curtis & Norgate, 2007). Two-year follow-up results indicate significant benefits in the PATHS intervention group on teacher-reported aggression and ADHD (Malti, Ribeaud, & Eisner, 2011; Malti, Ribeaud, & Eisner, 2012).

One of the most important lessons we can learn from PATHS is how beneficial it is to embed activities that are designed to improve children's range of emotional vocabulary, their ability to provide appropriate personal examples of the experience of basic feelings, their beliefs that they can regulate their feelings, and their understanding of cues for recognizing feelings in others into the day-to-day operations of the classroom. There are countless opportunities for teachers to assign materials and engage in discussions that promote the development of empathy, peaceful conflict resolution, and responsible decision-making.

PATHS also has much to teach us about the importance of including special needs students in all of these activities. Special needs children who began PATHS with high rates of self-reported conduct problems and depressive symptoms had significant reductions at post-test and maintained these reductions for two years post-intervention. At a three-year follow-up, the trajectories for internalizing and externalizing behavior and depression continued to decline for intervention students, whereas control students' trajectories increased (internalizing/externalizing) or declined at a lower rate (depression) (Kam, Greenberg, & Kusche, 2004).

3.2.3. Positive Action Program

The Positive Action Program (PAP) PAP uses an asset-building approach to intervention and prevention. It is designed to focus on and enhance student character and behaviour. It was developed in 1977 by Carol Gerber Allred and has undergone frequent additions over the years (Washburn et al. 2011). PAP teaches children how to engage in health promoting behaviours for all areas of the self (physical, intellectual, social, and emotional). There are approximately 140 15-minute lessons per grade, provided by teachers. In addition, there are school-climate, counsellor, community, and family member kits that encourage and reinforce the core competencies outlined in this paper.

Teachers report that children are highly engaged with the material (Schmidt, Flay, & Lewis, 2014). A recent study reported that PAP contributed to improving elementary school quality in terms of school safety; teacher, student and parent involvement; quality student support; and standards based learning (Snyder, Vuchnich, Acock, Washburn, & Flay, 2012). Recent randomized control studies support the effectiveness of the program. In a study conducted in 20 racially and ethnically diverse schools in Hawaii (half of the schools employed PAP while the other 10 acted as controls), beneficial effects were observed in school-level achievement and student achievement in math, reading and science. There was also a decrease in behaviours such as bullying, conduct problems, and absentee-

ism (Snyder *et al.*, 2010; Snyder *et al.*, 2012); and in substance use, violence, and sexual activity (Beets *et al.*, 2009). In a cluster-randomized trial of predominantly low-income and minority urban elementary schools, positive affect and life satisfaction both improved, and there was a significant reduction in depression and anxiety (Lewis *et al.*, 2013).

In general, PAP has been shown to be successful in increasing a variety of positive child outcomes including academic achievement, prosocial behaviour trajectories, and emotional and mental health. Effect sizes have ranged from 0.34 - 0.72 (Flay, 2012).

The lesson from the success of PAP is that schools should seek ways to develop in their students the following:

- 1. Self-concept (i.e. relationship of thoughts, feelings, and actions)
- 2. Physical and intellectual actions (i.e. hygiene, nutrition, avoidance of harmful substances, decision-making skills, creativity)
- 3. Responsible self-management
- 4. Getting along with others
- 5. Being honest with yourself and others
- 6. Self-improvement (i.e. goal setting, persistence, problem-solving, acquiring the courage to try new things).

4. HOW SCHOOLS CULTIVATE THESE COMPETENCIES

4.1 THE SCHOOL ENVIRONMENT

Schools play a vital role in the development of the five core social and emotional competencies (Weissberg & Cascarino 2013). The very social nature of school plays a vital role in a child and youth's social and emotional development (Lewis, 1992).

Students need to engage with peers and teachers in order to develop their social and emotional competencies (Greenspan, 1994). They need to be exposed to new and more complex emotions and emotional conflicts (Saarni, 1999). It is also beneficial for them to read and think about the experiences of literary characters. Most important, however, are the interactions that take place in the classroom, in the halls, on the playground, and in the cafeteria. The rivalries that students experience, the alliances that they form, the shared interests and working together on a common goal are life experiences that lay the foundation for success and happiness in the adult years (Denham et al., 2009).

Acquiring new thinking skills is essential for the student's self-management and decision-making, while being exposed to new ideas enhances those positive emotions that are vital for self-awareness: not just curiosity and interest, but also satisfaction and the feelings of self-efficacy that come from mastering a difficult task (Harter, 2006). Learning how to deal with the frustration and disappointment that comes from struggling with, and even failing at, an assignment are an important part of this process—an essential aspect of the ability to stay on task

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By breaking a problem down into manageable chunks, drawing attention to salient details, helping a student organize his thoughts, teachers not only help students plan and sequence their thoughts, but also enhance their ability to stay focused on a problem and ignore distractions.

is being able to cope with the negative emotions that arise as one confronts a challenge. Even the anxiety of studying for an exam is beneficial, provided this does not become excessive, for it has long been known that a moderate amount of anxiety promotes cognitive processes (Yerkes & Dodson, 1908).

The importance of a warm and nurturing teacher in the development of these five core competencies cannot be emphasized too strongly. A teacher's constructive feedback is a constant source of development. A teacher's own positive affect state profoundly influences that of her students: a phenomenon known as 'limbic resonance' (Goleman, 2006). Their passion for the material and for helping students maximize their potential has a profound impact on their self-evaluation, self-monitoring, and self-esteem (Wentzel, 1997). Moreover, a teacher's responses to a student's struggles and achievements are pivotal for that student's executive functions and meta-cognitive skills (Bodrova & Leong, 2007). By breaking a problem down into manageable chunks, drawing attention to salient details, helping a student organize his thoughts, teachers not only help students plan and sequence their thoughts, but also enhance their ability to stay focused on a problem and ignore distractions (Schunk & Zimmerman 1998).

Research based on the National Longitudinal Survey of Children and Youth has shown that participating in afterschool activities – sports, playing in the orchestra, being part of a drama or science club – is especially important for academic outcomes and prosocial development. These activities provide students with opportunities to explore their identity, develop their self-initiative, learn how to manage their emotions in real-life situations, develop positive peer relationships, and acquire social skills. The data clearly show that the more students engage in such activities the less likely they are to smoke or be drawn to alcohol or marijuana (Guévremont, Findlay, & Kohen, 2014).

4.2 THE TEACHER-STUDENT RELATIONSHIP

The quality of the student-teacher relationship and the emotional support that students receive from their teachers are very important for student wellbeing and academic achievement (Perry, 1998; Skinner & Belmont, 1993). It is thus imperative that we understand the factors that lead to strong student-teacher relationships.

Several educational theorists have looked at the parallels between parenting and teaching styles (Barnas, 2000; Wolfgang, 2001; Pellerin, 2005). The research that has been done in this area has been strongly informed by Diana Baumrind's seminal study, which, drawing on Kurt Lewin's classic leadership study (Lewin, Lippitt & White 1939) showed that different parenting styles are associated with different outcomes in children's behaviors (Baumrind 1968, 1971). Baumrind identified three main styles of parenting: what she called Authoritative, Authoritarian, and Permissive.

Authoritative parenting is warm, responsive, attentive, and sensitive to children's needs. It involves setting clear boundaries, but without imposing excessive limits; using supportive rather than punitive methods of intervention and being consistent in how demands are enforced. Authoritative parenting encourages the child's sense of autonomy by encouraging them to express their own thoughts, feelings, feelings, and desires; engaging in joint decision-making; and showing sensitivity and responsiveness to the child's emotional needs. Research shows that, overall, the children of authoritative parents have the highest levels of social and emotional development (Steinberg, Elmen, & Mounts, 1989).

Authoritarian parenting is disciplinarian. The child is presented with strict rules and punished for failing to comply with those rules. In Baumrind's words, authoritarian parents are "obedience-oriented and expect their orders to be obeyed without explanation." They make many demands on their child and use forceful, even coercive measures to shape and control the child's behaviour. Far from encouraging the child's sense of autonomy, they make decisions unilaterally.

Research shows that authoritarian parenting styles tend to lead to children that are obedient but can have psychological problems. Unfortunately, these children tend to have low self-esteem and rank lower in terms of happiness and social competence. More worrying is the fact that harsh punishment is a significant predictor of aggression in adolescents. Authoritarian parenting is linked to increased internalizing and externalizing problems (Robinson, Mandleco, Olsen, & Hart, 2001). Worst of all are harsh behavior and neglect, which are significant predictors of aggression (Maura O'Keefe, 2005).

Permissive parenting is warm but overindulgent. Permissive parenting makes few demands on the child and readily ignores the child's failure to comply with the few demands that are made. Permissive parents avoid confrontation and seek to be their child's friend rather than their parent. The children of permissive parents tend to rank low in terms of happiness and high in terms of behavioral problems. They tend to have problems with authority and significant problems in school. Permissive parenting is associated with poor impulse control and increased aggression (Lewis, Granic & Lamm, 2006).

Macoby and Marting (1983) added a fourth parenting style to Baumrind's taxonomy: the Uninvolved parent, who is emotionally detached and uncommunicative. Uninvolved parenting makes few or no demands on the child and is essentially indifferent to child's needs and points-of-view. Uninvolved parenting is associated with behaviour problems, poor psychosocial development, internalized distress and low achievement in school (Lamborn, Mounts, Steinberg, & Dornbusch, 1990).

Findings on the effects of different styles of teaching are remarkably similar to those on the effects of parenting styles, and show how we help teachers in their quest to develop strong relationships with their students. Authoritative teaching is highly responsive and supportive by treating students as responsible individuals. To be sure, authoritative teachers place limits on their students, but also encourage their independence. They are careful to explain the reasons behind rules and often have the students themselves take an active role in designing these rules. These teachers tend to be much more tolerant when students disagree with what they are saying or interject during classroom discussions. They pay attention to discipline, but are careful to mete consequences for violations of classroom rules in a fair and consistent manner.

Like authoritative parenting, authoritative teaching boosts students' social and emotional development. Research has shown that this is effective at producing students that are socially competent and responsible, and, in general, more mature. Authoritative teaching has also been shown to promote positive classroom and school environments (Mugny, Chatard & Quiamzade, 2006; Mullen & Tallent-Runnels, 2006; Quiamzade, Mugny & Falomir-Pichastor, 2009; Snyder & Bassett, 2011; Buskist & Benassi, 2012).

Authoritarian teaching is preoccupied with enforcing strict discipline in the classroom. It offers students little opportunity for discussion or argument,

which may challenge the teacher's authority. Authoritarian teaching is highly intolerant of rule-infractions or failures to meet deadlines, and uses reward and punishment as the primary tools for managing classroom behaviour. Students who fail to abide by their authoritarian rules are seen as failing to make the necessary effort to control their impulses and as having only themselves to blame should they fail.

Authoritarian teaching appears to have a damaging effect on students' self-esteem, motivation, and self-efficacy, and few of the social/emotional benefits associated with a trusting student-teacher relationship and positive classroom climate. Significantly, it also appears to be extremely taxing on the teachers themselves (Wentzel, 2002; Mugny, Chatard & Quiamzade 2006; Pellerin, 2004; Quiamzade, Mugny & Falomir-Pichastor, 2009; Snyder & Bassett, 2011).

Permissive teachers make little effort to enforce discipline in the classroom and, when students do misbehave, tend to ignore this for as long as possible. Far from trying to build trusting relationships, they may disregard and even distrust their students. They put the minimum effort into their teaching, which they regard as more of a burden than a calling.

Permissive teaching is associated with the same sorts of social and emotional problems that we see with permissive parenting. Students tend to display heightened impulsivity, lack of motivation and persistence, chronic anxiety, and poor academic outcomes (Eisenberg, Fabes, & Spinrad, 2006; Ginsburg, Durbin, García-España, Kalicka, & Winston, 2009; Parke & Buriel, 2006; Paulussen-Hoogeboom, Stams, Hermanns, Peetsma, & van den Wittenboer, 2008; Thompson, 2006; Bernstein, 2013).

Indulgent teachers tend to go out of their way to avoid conflicts with their students, and may be almost too involved in supporting their students. They give their students too much latitude and, because of their reluctance to make any demands on them, may actually undermine their students' motivation (Daniel, 2009). One of the more interesting aspects of the research that has been done on this style of teaching is the finding that avoiding the kinds of conflicts that arise over grades may actually weaken student-teacher relationships (Greenwald & Gillmore, 1997; Marsh & Roche, 2000; Johnson, 2002; Griffin, 2004; Love & Kotchen, 2010).

4.3 POSITIVE LEARNING ENVIRONMENTS

Students learn best in classroom environments in which they feel safe, both physically and emotionally. When students feel safe they develop relationship skills and engage with peers and teachers much more positively and productively (Hoy & Woolfolk, 1993; Newman, Rutter & Smith, 1989; Sutherland, 1994). That means that they have to be protected from bullying and violence (deLara, 2006; Rothon, Head, Klineberg, & Stansfeld, 2011) and feel safe in expressing what they are thinking or feeling and not afraid of being seen to fail in front of their peers (Lewis, 2001; Bucher & Manning, 2005). Knowing that discipline problems will be dealt with fairly and consistently has been shown to have a dramatic impact on student well-being and achievement (Kees, 2003).

The meta-analysis done by John Hattie on the factors that promote effective learning is especially helpful for teachers and administrators who seek to improve their classroom environments. The most important factors that Hattie identified are: students receive constructive feedback from their teachers; teachers have high expectations as to the material that students are capable of mastering; teachers set appropriate goals and challenges for their students; there

are strategies in place for helping students to develop a sense of independence and self-efficacy; students see themselves as part of a cohesive and supportive group of peers (Hattie, 2009).

A number of elements have been identified as essential for making students feel safe (Skiba & Peterson, 2000; Warren *et al.* 2006). A strict discipline code will not suffice; for students need to feel safe socially and emotionally as well as physically (Lewis, 2001; Bucher & Manning, 2005). The key factor in this regard is the student-teacher relationship (Birch & Ladd, 1997; Hamre & Pianta, 2001). Students need to develop a personal relationship with their teachers (Voelkl, 1995; Woolley & Bowen, 2007) that is grounded in mutual trust (Bryk & Schneider, 2002). The type of emotional and academic support that students receive from their teachers is pivotal (Croninger & Lee, 2001; Hamre & Pianta, 2005; Baker, 2006; Bernstein-Yamashiro, 2013) as is the support that they receive from their fellow students (Wentzel & Caldwell, 1997; Wentzel, 1998, 2005; Dennis, Phinney, & Chuateco, 2005).

The more positive the learning environment, the more this promotes student engagement that, in turn, is critical for creating a positive learning environment (Tinto, 1993; Fredericks, Blumenfeld, & Paris, 2004). Teachers and administrators need to understand and seriously promote a positive learning environment.

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5. REVIEW OF OUTCOMES

There have been hundreds of studies evaluating the outcomes of programs designed to foster SEL. (A full listing, with reviews, can be found at http://www.casel.org/guide.) Several meta-reviews have been published, enabling us to summarize the findings (see Appendix 1). There are a number of specific lessons schools can learn from these meta-reviews as they seek to engage in activities to cultivate their students' core social/emotional competencies.

- SEL programs should be universal because they are effective at reducing behavioral and emotional problems and beneficial for students without such problems.
- Teachers, rather than outside professionals are the most effective resource for cultivating the five core competencies
- School initiatives designed to enhance self- and social-awareness so as to promote prosocial development and reduce anti-social behavior have their greatest impact when they have a well-defined focus (e.g., general violence; disruptive or antisocial behavior; bullying; gang activity; dating violence).
- Academic performance improves as a direct consequence of cultivating the core competencies
- To be effective, an SEL initiative needs teachers to have:
 - A sound understanding of the theoretical base
 - Well defined goals
 - A strong focus on explicit guidelines
 - PD to support the work

- Opportunities to discuss their activities with other teachers
- Feedback from administrators
- Consistent staffing.

6. SUMMARY OF FINDINGS

In general, positive outcomes of SEL programs have been demonstrated in the following key areas:

- · Improved academic achievement
- Improved attitudes towards school and education
- · Increased social-emotional skills
- · Improved attitudes toward self and others
- Improved mental health (reduction of anxiety, depression and emotional distress)
- Improved social behaviors
- · Decreased conduct problems
- · Improved classroom and school environment

7. MEASURING SEL

The evidence is clear that it is very important to measure how students are progressing in the development of their core social/emotional competencies, and how classroom and school conditions are contributing to this vital aspect of their education. This is not just a vital aspect of their wellbeing, but a critical factor in their long-term academic attainment as well.

Fortunately, we now possess a number of effective tools to measure 'what really matters'. These tools provide us with a battery of methods for assessing students' social and emotional strengths and the areas that need to be strengthened. There are also a number of tools that enable teachers and schools to assess the effectiveness of what they're doing and build on the strengths of what they have initiated.

7.1 STUDENT DEVELOPMENT

A number of scales have been created and tested to assess the five core competencies. We can begin measuring these competencies in preschool, which not only enables us to promote social/emotional learning at a time when the brain is at its most plastic, but also to intervene early if and when problems are identified. A particularly useful measurement tool in this regard is the Preschool SelfDRegulation Assessment (PSRA), which is designed to assess self-regulation in emotional, attentional, and behavioral domains using a brief, structured battery of tasks. What is especially useful is how it captures children's emotion regulation and attention/impulsivity. For children in kindergarten, the Early

Development Index measures five areas of early child development that are known to be good predictors of adult health, education and social outcomes. These areas include social competence (Does the child share with others? Is the child self-confident? Will he/she invite bystanders to join in a game?) and emotional maturity (Is the child able to concentrate? Is the child aggressive or angry? Is the child impulsive?).

For primary school-aged children, the Emotion Regulation Checklist is used to measure students' self-awareness of emotion, appropriateness of emotional displays, and empathy. Also useful is how it looks at students' positive emotion strategies (e.g., can they recover from stress; are they empathetic) and negative emotion strategies (do they fall to pieces under stress; are they easily irritated).

For children of all ages, one of the standard tools is the Strengths and Difficulties Questionnaire (SDQ). The SDQ is designed for students 3-16 year olds. It identifies emotional problems; conduct problems; hyperactivity/inattention; problems in peer relationships; and problems in prosocial behavior.

Equally important is the Child Behavior Checklist (CBCL), which is a standard tool for detecting emotional and behavioural problems. It focuses on eight areas: anxious/depressed; depressed; somatic complaints; social problems; thought problems; attention problems; rule-breaking behaviour; aggressive behaviour.

The Behavioral and Emotional Rating Scale (BERS) is another standard tool, used to assess a student's personal strengths and the areas that need to be strengthened in regards to interpersonal relations, intrapersonal resources, school functioning, and emotion regulation.

Finally, the Behavior Assessment System for Children (BASC) measures behavioral and emotional strengths and weaknesses. The BASC is particularly useful for identifying adaptive and problem behaviors in classroom settings.

For teens, the Youth Rating Scale component of the BERS provides a strength-based assessment of the emotional and behavioral skills that are important for having a sense of personal accomplishment, good interpersonal skills, and the ability to deal with stress. Also useful is the Multidimensional Self©Concept Scale (MSCS) that assesses global self-concept and six sub-domains for youth and adolescents (social, competence, affect, academic, family, and physical).

The MSCS has been found to be very useful for identifying students who have low self-esteem. It is also important to get a sense of their resilience. In that regard, the Resilience Factory Inventory was designed to help students understand and work on their own thoughts and behaviors. The key domains covered are emotion regulation, looking at how well students can manage their emotions, attention and behavior under pressure; impulse control and delay of gratification; ability to identify the causes of stress; self-efficacy; realistic optimism; empathy; and the student's ability to reach out to others for help when needed.

7.2 CLASSROOM AND SCHOOL CONDITIONS

In addition to measuring student progress in Social and Emotional Learning, it is important to assess the effectiveness of classroom and school activities that enhance students' development of these core competencies. For younger students, a standard measurement tool is the Early Childhood Environment Rating Scale (ECERS). This was designed to assess process quality in an early

childhood or school age care group. It looks at the interactions between teachers and children, staff, parents, and other adults; interactions among the children themselves; and the interactions children have with the materials and activities in the classroom.

Another very useful tool is the Assessment Profile for Early Childhood Programs (APECP). This provides a global assessment of preschool classroom environment. The scales include (1) learning environment; (2) scheduling; (3) curriculum (4) teacher-child interaction; and (5) support for individualized learning experiences.

Robert Pianta's CLASS is an exceptionally powerful set of observational tools designed to assess and enhance effective teaching and classroom climate in primary, middle and secondary school (with additional scales for infants, toddlers and Pre-K students). It looks at such things as teacher sensitivity and responsiveness; classroom organization; productivity; behavior management; concept development; instructional feedback; language modeling; quality of feedback; and instructional dialogue.

The Comprehensive School Climate Inventory (CSCI) is extremely useful for measuring a school's social/emotional climate. After extensive study, six key factors were identified that go into creating a positive school climate: physical order and safety; social order and safety; collaboration and communication; quality of instruction; parent/guardian and community involvement; expectations for student achievement.

In addition to the above types of global SEL scales, there are also a number of tools that enable us to investigate the core competencies in greater detail such as the Social Skills Rating System (SSRS); the Social Competence and Behavior Evaluation; and the Devereux Student Strengths Assessment (DESSA).

What they all have in common is that they have been designed in such a way that they can be easily administered; they provide us with a sensitive appraisal of a student's core competencies; they help teachers promote the development of these core competencies; and they guide efforts to enhance a school's social and emotional climate.

Two more 'Rs' must now be added to the classic three: Regulated and Related. The better students can identify and describe their feelings, deal with stress and manage their emotions, empathize with others, develop strong friendships, and have good problem-solving strategies, the better their outcomes in all respects.

8. INTEGRATING SEL WITH THE OTHER AREAS BEING REVIEWED

The findings reviewed in this paper bring into sharp relief a crucial aspect of education that we need to embrace and enrich. When Egerton Ryerson championed the cause of universal education in 1846, it was in order to provide children and youth with the personal as well as academic skills needed for healthy, productive, and meaningful lives. Schools have been dedicated to this goal from the start. We are now much further advanced in our appreciation of the core competencies involved and how to enhance their development.

These findings make it is clear that schooling involves so much more than instruction in formal subjects. Two more 'Rs' must now be added to the classic three: Regulated and Related. The better students can identify and describe their feelings, deal with stress and manage their emotions, empathize with others, develop strong friendships, and have good problem-solving strategies, the better

their outcomes in all respects (Raver & Knitzer 2002). Schooling has an absolutely crucial, and indeed, irreplaceable role to play here.

What needs to be underscored, however, is that there is no single recipe for cultivating the five core competencies. Nor, for that matter, is there a standard method for incorporating SEL ideas and techniques from other successful programs; every school presents a unique set of challenges and opportunities. For this reason, schools need to regularly measure and review the effectiveness of what they are doing and modify their strategies accordingly.

As important as the three Rs are, today's students must develop the social and emotional capacities necessary for healthy and productive living. Schools play an important part in that developmental process, a process that must be assessed as seriously as the other dimensions of learning. *Measuring What Matters* marks a major step forward in how we understand and meet students' complex needs.

REFERENCES

- Anderman, E., & Midgley, C. (1997). Changes in achievement goal orientations, perceived academic competence, and grades across the transition to middle-level schools. *Contemporary Educational Psychology*, *22*, 269-298.
- Baker, J. (2006). Contributions of teacher-child relationships to positive school adjustment during elementary school. *Journal of School Psychology*, 44(3), 211-229.
- Barnas, M. (2000). "Parenting" students: Applying developmental psychology to the college classroom. *Teaching of Psychology*, *27*(4), 276-277.
- Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary school intervention on students' "connectedness" to school and social adjustment during middle school. *The Journal of Primary Prevention*, *24*(3), 243-262.
- Battistich, V., Schaps, E., Watson, M., Solomon, D., & Lewis, C. (2000). Effects of the Child Development Project on students' drug use and other problem behaviors. *Journal of Primary Prevention*, *21*, 75-99.
- Baumrind, D. (1968). Effects of authoritarian parental control on child behavior. *Child Development*, *37*, 887-907.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1, Pt.2), 1-103. doi: 10.1037/h0030372
- Beets, M., Flay, B., Vuchinich, S., Snyder, F., Acock, A., Li, K., Burns, K., Washburn, I., & Durlak, J. (2009) Use of a social and character development program to prevent substance use, violent behaviours, and sexual activity among elementary-school students in Hawai'i. *American Journal of Public Health*, *99*: 1438-1445. doi:10.2105/AJPH.2008. 142919
- Bernstein-Yamashiro, B. (2013). Teacher-student relationships: A growing field of study. *New Directions for Youth Development*, 137, 15-26.
- Berk, L., & Shanker, S. (2005). *Child development: Second Canadian edition.* Toronto: Pearson Education Canada.
- Birch, S., & Ladd, G. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, *35*(1), 61-79.
- Blair, C. (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of children's functioning at school entry. *American Psychologist*, 57(2), 111-127.
- Bodrova, E. & Leong, D. J. (2007). *Tools of the mind: the Vygotskian approach to early childhood education* (2nd ed.). Columbus, OH: Merrill/Prentice Hall.
- Bowlby, J. (1965). Child care and the growth of love. (2nd ed.). Baltimore: Penguin Books.
- Bowlby, J. (1969). Attachment and loss. London: Institute of Psycho-Analysis.
- Bruner, J. S. (1961). The act of discovery. *Harvard Educational Review*, 31, 21-32.
- Bruner, J. S. (1966). Toward a theory of instruction, Cambridge, Mass.: Belkapp Press.
- Bryk & Schneider, (2002). *Trust in schools: A core resource for improvement.* New York: Russell Sage Foundation.
- Bucher, K., & Manning, M. (2005). Creating safe schools. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 79(1), 55-60.
- Buskist, W., & Benassi, V. A. (Eds.). (2012). *Effective college and university teaching: Strategies and tactics for the new professoriate.* Thousand Oaks, CA: Sage.
- Campos, J., Frankl, C., & Camras, L. (2004). On the nature of emotion regulation. *Child Development*, *75*(2), 377-394.
- Caprara, G., Fida, R., Vecchione, M., Del Bove, G., Vecchio, G., Barbaranelli, C., & Bandura, A. (2008). Longitudinal analysis of the role of perceived self-efficacy for self-regulated learning in academic continuance and achievement. *Journal of Educational Psychology*, 100(3), 525-534.
- Cherniss, G. (2000). Social and emotional competence in the workplace. In R. Bar-On & J. Parker (Eds.). *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace.* (pp. 433-458). San Francisco: Jossey-Bass.
- Cicchetti, D., Ackerman, B., & Izard, C. (1995). Emotions and emotion regulation in developmental psychopathology. *Development and Psychopathology, 7*(1), 1-10.
- Colby, A., & Damon, W. (1992). *Some do care: Contemporary lives of moral commitment*. New York: Free Press.

- Compas, B., Malcarne, V., & Fondacaro, K. (1988) Coping with stressful events in older children and young adolescents. *Journal of Consulting and Clinical Psychology*, *56*(3): 405-411.
- Crean, H., & Johnson, D. (2013). Promoting Alternative Thinking Strategies (PATHS) and elementary school-aged children's aggression: Results from a cluster randomized trial. *American Journal of Community Psychology*, *52*(1-2), 56-72.
- Croninger, R., & Lee, V. (2001). Social capital and dropping out of high school: Benefits to at risk students of teachers' support and guidance. *The Teachers College Record*, 103(4), 548-581.
- Curtis, C., & Norgate, R. (2007). An evaluation of the Promoting Alternative Thinking Strategies Curriculum at key stage 1. *Educational Psychology in Practice*, 23(1), 33-44.
- Damasio, A. (1996). The somatic marker hypothesis and the possible functions of the prefrontal cortex. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, *351*(1346), 1413-1420.
- Daniel, D.B. (2009, January). *When helping hurts: Teaching as codependency*. Paper presented at the 31st annual National Institute on the Teaching of Psychology, St. Petersburg Beach. FL.
- Darling, N., Caldwell, L., & Smith, R. (2005). Participation in school-based extracurricular activities and adolescent adjustment. *Journal of Leisure Research*, *37*(1), 51-76.
- Davidson, R. J., & McEwen, B. (2012). Social influences on neuroplasticity: Stress and interventions to promote well-being. *Nature Neuroscience*, *15*(5), 689-695.
- deLara, E. (2006). Bullying and violence in American schools. In N. Dowd, D. Singer, & R. Wilson (Eds.). *Handbook on children, culture, and violence*. (CH 17, pp. 333-353). Thousand Oaks, CA: Sage Publications.
- Denham, S. (1998). *Emotional development in young children*. New York: The Guilford Press. Denham, S., Ji, P., & Hamre, B. (2010). *Compendium of preschool through elementary school social-emotional learning and associated assessment measures*. Social and Emotional Learning Research Group: University of Illinois at Chicago.
- Denham, S., Mason, T., Caverly, S., Schmidt, M., Hackney, R., Caswell, C., & DeMulder, E. (2001). Preschoolers at play: Co-socialisers of emotional and social competence. *International Journal of Behavioral Development*, *25*(4), 290-301.
- Denham, S., von Salisch, M., Olthof, T., Kochanoff, A., & Caverly, S. (2002 2004 paperback edition). Emotional and social development in childhood. In P. Smith & C. Hart (Eds.). Blackwell handbook of childhood social development. (pp. 307-328). Malden, MA: Blackwell.
- Denham, S., Wyatt, T., Bassett, H., Echeverria, D., & Knox, S. (2009). Assessing social emotional development in children from a longitudinal perspective. *Journal of Epidemiology and Community Health*, *63*(Suppl II), 37-52.
- Dennis, J., Phinney, J., & Chuateco, L. (2005). The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of College Student Development*, 46(3), 223-236.
- Dienstbier, R. (1984). The role of emotion in moral socialization. In C. Izard, J. Kagan, & R. Zajonc (Eds.). *Emotions, cognition, and behavior.* (pp. 484-514). Cambridge University Press.
- Dulewicz, V., & Higgs, M. (2000). Emotional intelligence: A review and evaluation study. *Journal of Managerial Psychology*, *15*(4), 341-372.
- Dunn, J., & Herrera, C. (1997). Conflict resolution with friends, siblings, and mothers: A developmental perspective. *Aggressive Behavior*, *23*(5), 343-357.
- Dunn, J., & Hughes, C. (1998). Young children's understanding of emotions within close relationships. *Cognition and Emotion*, *12*(2), 171-190.
- Durlak, J., Weissberg, R., Dymnicki, A., Taylor, R., & Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child development*, *82*(1), 405-432.
- Eccles, J., & Barber, B. (1999). Student council, volunteering, basketball, or marching band: What kind of extracurricular involvement matters? *Journal of Adolescent Research*, 14, 10-43.
- Eisenberg, N., Fabes, R., Murphy, B., Maszk, P., Smith, M., & Karbon, M. (1995). The role of emotionality and regulation in children's social functioning: A longitudinal study. *Child Development*, *66*(5), 1360-1384.

- Eisenberg, N., Fabes, R., Shepard, S., Murphy, B., Guthrie, I., Jones, S., Friedman, J., Poulin, R., & Maszk, P. (1997). Contemporaneous and longitudinal prediction of children's social functioning from regulation and emotionality. *Child Development*, *68*(4), 642-664.
- Eisenberg, N., Fabes, R., & Spinrad, T. (2006). Prosocial development. In W. Damon, R. Lerner, & N. Eisenberg (Eds.), *Handbook of child psychology, volume 3, social, emotional, and personality development, 6th edition* (pp. 646-718). New York: Wiley.
- Eisenberg, N., Spinrad, T., Fabes, R., Reiser, M., Cumberland, A., Shephard, S., Valient, C., Losoya, S., Guthrie, I., & Thompson, M. (2004). The relation of effortful control and impulsivity to children's resiliency and adjustment. *Child Development*, 75, 25-46.
- Eisenberg, N., Spinrad, T., & Morris, A. (2014). Empathy-related responding in children. In M. Killen & J. Smetana (Eds.). *Handbook of moral development* (2nd ed.), (pp. 184-207). New York: Psychology Press.
- Elias, M., Gara, M., Schuyler, T., Branden-Muller, L., & Sayette, M. (1991). The promotion of social competence: Longitudinal study of a preventive school-based program. *American Journal of Orthopsychiatry*, 61(3), 409-417.
- Erikson, E. (1968). Identity, youth, and crisis. New York: W.W. Norton.
- Factor, P., Rosen, P., & Reyes, R. (2013). The relation of poor emotional awareness and externalizing behavior among children with ADHD. *Journal of Attention Disorders* XX(X), I-X. (epub ahead of print.)
- Feldman, A., & Matjasko, J. (2005). The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of Educational Research*, *75*(2), 159-210.
- Flay, B. (2012, January). Randomized evaluation of the Positive Action Pre-K program.

 Retrieved from: https://www.positiveaction.net/research/downloads/pre-kindergarten 2012.pdf
- Fogel, A. (1993). *Developing through relationships: Origins of communication, self, and culture.* Chicago: University of Chicago Press.
- Fogel, A., King, B., & Shanker, S. (Eds.). (2007). Human development in the twenty-first century: Visionary ideas from systems scientists. Cambridge: Cambridge University Press.
- Fredericks, J., Blumenfeld, P., & Paris, A. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, *74*(1), 59-109.
- Frijda, N. (2007). The laws of emotion. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ginsberg, K., Durbin, D., García- España, J., Kalicka, E., & Winston, F. (2009). Associations between parenting styles and teen-driving, safety-related behaviors and attitudes. *Pediatrics*, *124*, 1040-1051.
- Goleman, D. (1995). Emotional intelligence. New York: Bantam Dell.
- Gottlieb, G. (1997). *Synthesizing nature-nuture: Prenatal roots of instinctive behavior.*Hillsdale, NJ: Lawrence Erlbaum Associates.
- Greenberg, M., & Kusche, C. (1998). Preventive intervention for school-aged deaf children: The PATHS Curriculum. *Journal of Deaf Studies and Deaf Education*, *3*, 49-63.
- Greenberg, M., Kusche, C., Cook, E., & Quamma, J. (1995). Promoting emotional competence in school-aged children: The effects of the PATHS Curriculum. *Development and Psychopathology*, *7*, 117-136.
- Greenspan, S. (1994). *Playground politics: Understanding the emotional life of your school-age child.* Cambridge, MA: Da Capo Press.
- Greenspan, S. (with Benderly, B.). (1997). *The growth of the mind: and the endangered origins of intelligence*. Reading, MA: Addison-Wesley.
- Greenwald, A., & Gilmore, G. (1997). Grading leniency is a removable contaminant of student ratings. *The American Psychologist*, *52*, 1209-1217.
- Griffin, B. (2004). Grading leniency, grade discrepancy, and student ratings of instruction. *Contemporary Educational Psychology*, *29*, 410-425.
- Guévremont, A., Findlay, L., & Kohen, D. (2014). Organized extracurricular activities: Are in school and out-of-school activities associated with different outcomes for Canadian children?. *Journal of School Health*, *84*(5), 317-325.
- Haggerty, K., Elgin, J., & Woolley, A. (2011). Social-emotional learning assessment measures for middle school youth. Social Development Research Group: University of Washington.

- Hahn, R., Fuqua-Whitley, D., Wetherington, H., Lowy, J., Liberman, A., Crosby, A., Fullilove,
 M., Johnson, R., Moscicki, E., Price, L., Snyder, S., Tuma, F., Cory, S., Stone, G.,
 Mukhopadhaya, K., Chattopadhyay, S., & Dahlberg, L. (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: A systematic review. *American Journal of Preventive Medicine*, 33(2), (Suppl), S114-S129.
- Hamre, B., & Pianta, R. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*, *72*(2), 625-638.
- Hamre, B., & Pianta, R. (2005). Can instructional support in the first grade classroom make a difference for children at risk for school failure? *Child Development*, *76*(5), 949-967.
- Harter, S. (2006). The self. In W. Damon, R. Lerner, & N. Eisenberg (Eds.), *Handbook of child psychology, volume 3, social, emotional, and personality development, 6th edition* (pp.505-570). New York: Wiley.
- Hatti, J. Visible learning: A synthesis of over 800 meta-analyses relating to achievement. New York: Routledge
- Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A motivational theory of life-span development. *Psychological Review*, 117(3), 32-60.
- Hoy, W., & Woolfolk, A. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal*, *93*(4), 355-372.
- Izard, C., Fine, S., Schultz, D., Mostow, A., Ackerman, B., & Youngstrom, E. (2001). Emotional knowledge as a predictor of social behavior and academic competence in children at risk. *Psychological Science*, *12*, 18-23.
- Kam, C., Greenberg, M., & Kusche, C. (2004). Sustained effects of the PATHS Curriculum on the social and psychological adjustment of children in special education. *Journal of Emotional and Behavioral Disorders*, *12*, 66-78.
- Kees, N. (2003). Creating safe learning environments. In W. Timpson, S. Canetto, E. Borrayo,
 & R. Yang (Eds.), *Teaching diversity: Challenges and complexities, identities and integrity*. Madison, WI: Atwood Publishing Co.
- Kochanska, G., Murray, K., & Coy, K. (1997). Inhibatory control as a contributor to conscience in childhood: From toddler to early school age. *Child Development*, *68*(2), 263-277.
- Kurtines, W., & Gewirtz, J. (Eds.). (1996). *Moral development: An introduction*. Boston: Allyn & Bacon.
- Ladd, G., Birch, S., & Buhs, E. (1999). Children's social and scholastic lives in kindergarten: Related spheres of influence?. *Child Development*, *70*(6), 1373-1400.
- Lamborn, S., Mounts, N., Steinberg, L., & Dornbusch, S. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, *62*(5), 1049-1065.
- Larson, R. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55(1), 170-183.
- LeDoux, J. (1998). The emotional brain: The mysterious underpinnings of emotional life. New York: Simon & Schuster Paperbacks.
- Lemerise, E., & Harper, B. (2014). Emotional competence and social relations. In K. Hansen Lagattuta (Ed). *Children and emotion: New insights into developmental affective science.* (pp. 57-66). Basel: Karger.
- Lewin, Lippitt & White (1939) Patterns of aggressive behavior in experimentally created social climates. Journal of Social Psychology, 10, 271-30
- Lewis, K., DuBois, D., Bavarian, N., Acock, A., Silverthorn, N., Day, J., Ji, P., Vuchnich, S., & Flay, B. (2013) Effects of Positive Action on the emotional health of urban youth: A cluster-randomized trial. *Journal of Adolescent Health*, *53*: 706-711.
- Lewis, M. (1992). *Early socioemotional predictors of cognitive competence at four years.*Toronto: Ontario Institute for Studies in Education.
- Lewis, M. (2005). Bridging emotion theory and neurobiology through dynamic systems modeling. *Behavioral and brain sciences*, 28(2), 169-194.
- Lewis, M., Granic, I., & Lamm, C. (2006). Behavioral differences in aggressive children linked with neural mechanisms of emotional regulation. *Annals of the New York Academic of Sciences*, *1094*, 164-177.
- Lewis, R. (2001). Classroom discipline and student responsibility: the students' view. *Teaching and Teacher Education*, 17, 307-319.
- Love, D., & Kotchen, M. (2010). Grades, course evaluations, and academic incentives. *Eastern Economic Journal*, 36, 151-163.

- Lovett, B., & Sheffield, R. (2007). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review*, *27*, 1-13.
- Loveland, K. A. (2005). Social-emotional impairment and self-regulation in autism spectrum disorders. In J. Nadel & D. Muir (Eds.) *Emotional development: Recent research review.* (pp. 365-382). New York: Oxford University Press.
- Mahler, M. (1975). The psychological birth of the human infant: Symbiosis and individuation. New York: Basic Books.
- Malti, T., Ribeaud, D., & Eisner, M. (2011). The effects of two universal preventive interventions to reduce children's externalizing behavior: A cluster-randomized trial. *Journal of Clinical Child and Adolescent Psychology*, 40(5), 677-692.
- Malti, T., Ribeaud, D., & Eisner, M. (2012). Effectiveness of a universal school-based social competence program: The role of child characteristics and economic factors. *International Journal of Conflict and Violence*, *6*(2), 249-259.
- Marsh, H.W., & Roche, L.A. (2000). Effects of grading leniency and low workload on students' evaluation of teaching: Popular myth, bias, validity, or innocent bystanders? *Journal of Educational Psychology*, *92*, 202-228.
- McCain, M., Mustard, J., & Shanker, S. (2007). *Early Years Study 2: Putting science into action.*Toronto: Council for Early Child Development.
- Mental Health Commission of Canada. (2012). *Changing directions, changing lives: The Mental Health Strategy for Canada*. Calgary, AB: Mental Health Commission of Canada. (Available at: http://strategy.mentalhealthcommission.ca/pdf/strategy-text-en.pdf.)
- Mischel, W., Shoda, Y., & Rodriguez, M. (1989). Delay of gratification in children. *Science*, 244(4907), 933-938.
- Moffitt, T., Arseneault, L., Belsky, D., Dickson, N., Hancox, R., Harrington, H., Houts, R., Poulton, R., Roberts, B., Ross, S., Sears, M., Thomson, W., & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences of the United States of America*, 108(7), 2693-2698.
- Mugny, G., Chatard, A., & Quiamzade, A. (2006). The social transmission of knowledge at the university: Teaching style and epistemic dependence. *European Journal of Psychology of Education*, 21 (4), 413-427.
- Mullen, G.E., & Tallent-Runnels, M.K. (2006). Student outcomes and perceptions of instructors' demands and support in online and traditional classrooms. *Internet and Higher Education*, *9*(4), 257-266.
- Newman, F., Rutter, R., & Smith, M. (1989) Organizational factors that affect teachers' sense of efficacy, community and expectations. *Sociology of Education*, *62*, 221-238.
- O'Keefe, M. (2005, April). Teen dating violence: A review of risk factors and prevention efforts. Retrieved from: http://new.vawnet.org/assoc_files_vawnet/ar_teendatingviolence.pdf
- Parker, R., & Buriel, R. (2006). Child development and the family. In W. Damon, R. Lerner, & N. Eisenberg (Eds.), *Handbook of child psychology, volume 3, social, emotional, and personality development, 6*th *edition* (pp. 429-504). New York: Wiley.
- Paulussen-Hoogeboom, M., Stams, G., Hermanns, J., Peetsma, T., & van den Wittenboer, G. (2008). Parenting style as a mediator between children's negative emotionality and problematic behavior in early childhood. *Journal of Genetic Psychology*, 169, 209-226.
- Payton, J., Weissberg, R., Durlak, J., et al. (2008). *The positive impact of social and emotional learning for kindergarten to 8th-grade students: Findings from three scientific reviews.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.
- Pellerin, L. (2004). Applying Baumrind's parenting typology to high schools: Toward a middle range theory of authoritative socialization. *Social Science Research*, *34*(2), 283-303
- Perry, N. (1998). Young children's self-regulated learning and contexts that support it. *Journal of Educational Psychology*, 90, 715-729.
- Pollatos, O., Gramann, K., & Schandry, R. (2007). Neural systems connecting interoceptive awareness and feelings. *Human Brain Mapping*, *28*, 9-18.
- Quiamzade, A., Mugny, G., & Falomir-Pichastor, J. (2009). Epistemic constraint and teaching style. *European Journal of Psychology of Education*, *24*, 181-190.
- Raver, C., & Knitzer, J. (2002). Ready to Enter: What Research Tells Policymakers About Strategies to Promote Social and Emotional School Readiness Among Three- and Four Year-Old Children. New York: National Center for Children in Poverty.

- Rigby, K. & Slee, P.T. (1993) Dimensions of interpersonal relating among Australian school children and their implications for psychological wellbeing. *Journal of Social Psychology*, 1331, 33-42.
- Robinson, C., Mandleco, B., Olsen, S., & Hart, C. (2001). The parenting styles and dimensions questionnaire (PSDQ). In J. Touliatos, B. Perlmutter, & M. Straus (Eds.). *Handbook of family measurement techniques, Vol. 3.* Thousand Oaks, CA: Sage.
- Rothon, C., Head, J., Klineberg, E., & Stansfeld, S. (2011). Can social support protect bullied adolescents from adverse outcomes? A prospective study on the effects of bullying on the educational achievement and mental health of adolescents at secondary schools in East London. *Journal of Adolescence*, 34(3), 579-588.
- Saarni, C. (1999). The development of emotional competence. New York: The Guilford Press. Salovey, P. & Mayer, J. D. (1990). Emotional intelligence. Imagination, Cognition, and Personality, 9, 185-211.
- Schmidt, S., Flay, B., & Lewis, K. (2014) A pilot evaluation of the Positive Action prekindergarten program. *Early Child Development and Care*, http://dx.doi.org/10.10 80/03004430.2014.903942
- Schonert-Reichl, K., Smith, V., Zaidman-Zait, A., & Hertzman, C. (2012). Promoting children's prosocial behaviors in school: Impact of the "Roots of Empathy" program on the social and emotional competence of school-aged children. *School Mental Health*, *4*, 1-21.
- Schore, A. (1996). The experience-dependent maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology. *Development and Psychopathology*, *8*(1), 59-87.
- Schunk, D & B Zimmerman (1998) Self-Regulated learning. The Guildford Press.
- Shenk, D. (2010). The genius in all of us: Why everything you've been told about genetics, talent and IQ is wrong. New York: Random House, Inc.
- Shonkoff, J., & Phillips, D. (2000). From neurons to neighbourhoods: The science of early childhood development. Washington, D.C.: National Academy Press.
- Siegel, D. (2013). *Brainstorm: The power and purpose of the teenage brain*. New York: Jeremy P. Tarcher/Penguin.
- Silk, J., Steinberg, L., & Morris, A. (2003). Adolescents' emotion regulation in daily life: Links to depressive symptoms and problem behaviors. *Child Development*, 74, 1869-1880.
- Skiba, R., & Peterson, R. (2000). School discipline at a crossroads: From zero tolerance to early response. *Exceptional Children*, *66*(3), 335-347.
- Skinner, E., & Belmont, M. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, *85*(5), 571-581.
- Sklad, M., Diekstra, R., De Ritter, M., Ben, J., & Gravestein, C. (2012). Effectiveness of school based universal social, emotional, and behavioral programs: Do they enhance students' development in the area of skill, behavior, and adjustment?. *Psychology in the Schools*, 49(9), 892-909.
- Snyder, T., & Bassett, J. (2011, February 26). *Permissive, authoritarian, and authoritative professors: Applying the concept of parenting styles to the college classroom.* Poster presented at the Southeastern Conference on the Teaching of Psychology, Atlanta, GA.
- Snyder, F., Flay, B., Vuchinich, S., Acock, A., Washburn, I., Beets, M, & Li, K. (2010) Impact of a social-emotional and character development program on school-level indicators of academic achievement, absenteeism, and disciplinary outcomes: A matched-pair, cluster randomized, controlled trial. *Journal of Research on Educational Effectiveness*, 3: 26-55.
- Snyder, F., Vuchnich, S., Acock, A., Washburn, I., and Flay, B. (2012) Improving elementary school quality through the use of a social emotional and character development program: A matched-pair, cluster-randomized, controlled trial at Hawai'i. *Journal of School Health*, 82: 11-20.
- Solomon, D., Battistich, V., Watson, M., Schaps, E., & Lewis, C. (2000). A six-district study of educational change: Direct and mediated effects of the Child Development Project. *Social Psychology of Education*, *4*, 3-51.
- Solomon, D., Watson, M., Delucchi, K., Schaps, E., & Battistich, V. (1996). Creating classrooms that students experience as communities. *Journal of Community Psychology*, *24*(6), 719748.

- Southam-Gerow, M., & Kendall, P. (2002). Emotion regulation and understanding: Implications for child psychopathology and therapy. *Clinical Psychology Review*, 22(2), 189-222.
- Spoon, J., Cicchetti, D., & Rogosch, F. (2013). A longitudinal study of emotion regulation, emotion lability-negativity, and internalizing symptomatology in maltreated and nonmaltreated children. *Child Development*, 84(2), 512-527.
- Steinberg, L., Elmen, J., & Mounts, N. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development*, *60*, 1424-1436.
- Sroufe, L., Schork, E., Motti, F., Lawroski, N., & LaFreniere, P. (1984). The role of affect in social competence. In C. Izard, J. Kagan, & R. Zajonc (Eds.). *Emotions, cognition, and behavior.* (pp. 289-319). Cambridge: Cambridge University Press.
- Sutherland, F. (1994). Teachers' perceptions of school climate. Retrieved from <code>http://files.eric.ed.gov/fulltext/ED379214.pdf</code>
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago: University of Chicago Press.
- Thompson, R. (2006). The development of the person: Social understanding, relationships, conscience, self. In W. Damon, R. Lerner, & N. Eisenberg (Eds.). *Handbook of child psychology: Vol. 3 Social, emotional, and personality development* (6th ed., pp. 24-98). New York: Wiley.
- Tomkins, S. (1962). *Affect, imagery, consciousness, Vol. I, The positive affects.* New York: Springer.
- Tomkins, S. (1963). *Affect, imagery, consciousness, Vol. II, The negative affects.* New York: Springer.
- Tremblay, R. (2000). The development of aggressive behavior during childhood: What have we learned in the past century? *International Journal of Behavioral Development*, 24(2), 129-141.
- Tucker, D. (2007). *Mind from body: experience from neural structure*. New York: Oxford University Press, Inc.
- Vitaro, F., Brendgen, M., & Tremblay, R. (2002). Reactively and proactively aggressive children: Antecedent and subsequent characteristics. *Journal of Child Psychology and Psychiatry*, 43(4), 495-505.
- Voelkl, K. (1995). School warmth, student participation, and achievement. *Journal of Experimental Education*, 63(2), 127-138.
- Vygotsky, L. S. (1962). Thought and Language. Cambridge MA: MIT Press.
- Warren, J., Bohanon-Edmonson, H., Turnball, A., Sailor, W., Wickham, D., Griggs, P., & Beech, S. (2006). School-wide positive behavior support: Addressing behavior problems that impede student learning. *Educational Psychology Review*, 18(2), 187-198.
- Washburn, I., Acock, A., Vuchinich, S., Snyder, F., Li, K., Ji, P., Day, J., DuBois, D., & Flay, B. (2011) Effects of a social-emotional and character development program on the trajectory of behaviours associated with social emotional and character development: Findings from three randomized trials. *Prevention Science*, 12: 314-323.
- Weissberg, R. P. & Cascarino, J (2013). Academic learning + social-emotional learning = national priority. Phi Delta Kappan, 95 (2): 8-13.
- Wentzel, K. (1997). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology*, *90*(2), 202-209.
- Wentzel, K. (2002). Are effective teachers like good parents? Teaching styles and student adjustment in early adolescence. *Child Development*, *73*, 287-301.
- Wentzel, K. (2005). Peer relationships, motivation, and academic performance at school. In A. Elliot & C. Dweck (Eds.). *Handbook of competence and motivation*. (pp. 279-296). New York: The Guilford Press.
- Wentzel, K., & Caldwell, K. (1997). Friendships, peer acceptance, and group membership:

 Relations to academic achievement in middle school. *Child Development*, *68*(6), 11981209
- Wolfgang, C.H. (2001). *Solving Discipline and Classroom Management Problems: Methods and Models for Today's Teachers*. New York: John Wiley and Sons.
- Woolley, M., & Bowen, G. (2007). In the context of risk: Supportive adults and the school engagement of middle school students. *Family Relations*, *56*(1), 92-104.
- Wyman, P., Cowan, E., Work, W., & Kerley, J. (1993). The role of children's future expectations on self-esteem functioning and adjustment to life stress: A prospective studyof urban at-risk children. *Development and Psychopathology*, *5*, 649-661.

- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit formation. *Journal of Comparative Neurology and Psychology*, 18(5), 459-482.
- Yoder, J. (2014). Teaching the whole child: Instructional practices that supplement social emotional learning in three teacher evaluation frameworks. American Institutes for Research.
- Zafirakis, E. (2013) Examining interpersonal conflict resolution among persistently antisocial youth Is this a key mechanism implicated in the persistence of antisocial behaviour? International Journal of Adolescence and Youth, DOI: 10.1080/02673843.2013.779586
- Zahn-Waxler., C., Iannotti, R., Cummings, E., & Denham, S. (1990). Antecedents of problem behaviours in children of depressed mothers. *Development and Psychopathology*, *2*(3), 271-291.
- Zimmerman, B. (1995). Self-efficacy and educational development. In A. Bandura (Ed.). *Self efficacy in changing societies*, (pp. 202-231). Cambridge: Cambridge University Press.
- Zimmerman, M. (1990). Taking aim on empowerment research: On the distinction between individual and psychological conceptions. *American Journal of Community Psychology*, *18*(1), 169-177.

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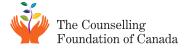
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