The Developing Brain and Young Children’s Social and Emotional Learning: An Overview

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Overview

- Introduction
- The State of our Children?
- What is social emotional learning and social emotional competence? Why is social emotional competence important?
- The developing brain and young children’s social and emotional learning.
- How can we nurture children’s social and emotional competence?
- Conclusions

Part I
Introduction

Part II
Why should we be concerned?

Reflection Question...

What knowledge, skills, and qualities do children need to have by the time they enter school and to be successful later in life?

UNICEF 2007 Report Card

“The true measure of a nation’s standing is how well it attends to its children – their health and safety, their material security, their sense of being loved, valued, and included in the families and societies into which they are born.”
Child Poverty in Perspective: An Overview of Child Well-Being in Rich Countries

A comprehensive assessment of the lives and well-being of children and adolescents in the economically advanced countries.

The 2007 Report Card assessed the well-being of children in 21 nations of the industrialized world. It attempted to measure and compare child well-being under six dimensions:

1. Material well-being
2. Health and safety
3. Educational well-being
4. Family and Peer relationships
5. Behaviours and risks
6. Subjective well-being

Average Ranking Position

- Netherlands 1st
- United States 18th
- Canada 11th

How are children in Canada doing?

- Material Well-Being Canada → 6th
- Educational Well-Being Canada → 2nd
- Health and Safety Canada → 16th
- Relationships Canada → 18th
- Behaviours and Risks Canada → 17th
- Subjective Well-Being Canada → 15th

Part III
The Current Research on Young Children’s Social and Emotional Development
Humans Really Are Born to be Good! (Cont’d)

Looking for the Positive
A Focus Discerning Strengths
Seeing Young Children Thru a New Lens

Humans Really Are Born to be Good!

Warneken & Tomasello
British Journal of Psychology, 2009

- Young children help others attain their goals with no concern for reciprocation and reputation.
- Results suggest that human infants are naturally altruistic.

Video Clips
Warneken Laboratory for Developmental Studies

Clothespin Task  Cabinet Task  Flap Task

Learned Optimism

- At the turn of this century: A shift to the study of the positive aspects of human experience
- Previous Focus: Pathology (not on the promotion of the positive features of individuals)
- A science of positive subjective experience, of positive individual traits, and of positive institutions promises to improve the quality of life and also to prevent the various pathologies that arise when life is barren and meaningless.
Research to date suggests that happy people often contribute more to their communities, have better relationships with others, and are more creative in some realms.

225 studies on the benefits of happiness found that happy people:
- Are more productive at work and more creative
- Make more money and have superior jobs
- Are better leaders and negotiators
- Are more likely to marry and to have fulfilling marriages, and less likely to divorce
- Have more friends and social support
- Have stronger immune systems, are physically healthier, and even live longer
- Are more helpful and philanthropic
- Cope better with stress and trauma

Gratitude Journal
- Improves physical health, raises energy levels
- Performing acts of altruism or kindness
  - Visiting a nursing home
  - Helping a friend’s child with homework
  - Mowing a neighbour’s lawn
  - Writing a letter to a grandparent

Finding your strengths and ways to boost them
- Reflectivehappiness.com

Extrinsic Rewards and Altruism

Study: Influence of rewards on very young children’s helping behavior
Findings: Extrinsic Rewards undermine altruistic tendencies in 20-month-olds

The Need for a Strengths-Based Approach

Resiliency Factors
- Individual characteristics
  - Intelligence
  - Personality (e.g., temperament, empathy, hope)
- Family and Peers
  - Social support
  - Cohesion
- Schools and Communities
  - School belonging,
  - “Significant adult”
Educating the Mind & Heart

The Need to Balance Educating the Mind with Educating the Heart

Recently, Nobel Peace Prize Laureate, Archbishop Desmond Tutu said: “Educating the mind without educating the heart has produced brilliant scientists who used their intelligence for evil.”

Roundtable Dialogue, “Balancing Educating the Heart with Educating the Mind”
April 20, 2004, Chan Centre, University of British Columbia

Three Guiding Principles
- Development of the whole child.
- Attention to context.
- Relationships as central.

And also...Guided by Research
- Rigorous science provides an essential foundation for effective policies and practices.

Major Goal of Developmental Psychology
- Finding early indicators of individual differences that facilitate or impede children’s present and future adaptation.
- Examining the way in which context interacts with individual characteristics to yield outcomes.

Urie Bronfenbrenner’s Contextual Perspective
- A child’s unique development cannot be viewed without seeing the child in social and cultural context.
- It is important to recognize the multiple spheres of influence on children’s development.
  - Everyday environments
    - Families/Friends/Caregivers
    - Social Institutions
  - Schools/Neighborhoods/Communities
  - Social Welfare Services
  - Attitudes and ideologies of a culture
Bronfenbrenner’s Ecological Model

Microsystem: Family, School, Peers, and Neighbourhoods

Fostering Competence

“It is critical to the future of a society that its children become competent adults and productive citizens. Thus, society and parents are a stake in the development of competence and in understanding the processes that facilitate it and undermine it.”
(Masten & Coatsworth, 1998, p. 205)

Fostering Positive Development During Early Childhood

Ecological Nutrients

Ecological Nutrients

- Community
- Schools
- Peers
- Families

Attachment Theory

“Human beings of all ages are happiest and able to deploy their talents to best advantage when they experience trusted others as ‘standing behind them.’”
(p. 25, Bowlby, 1973)

JOHN BOWLBY (1907-1990) Attachment Theory

Significant Adults/Parent Involvement

- Child Development (SRCD)
- 1364 children from birth to fifth grade
- Parent involvement:
  - Fewer aggressive and disruptive behaviours
  - Less anxiety and depression
  - Higher prosocial behaviours: Co-operation, self-regulation

“Every child requires someone in his or her life who is absolutely crazy about them.”
Urie Bronfenbrenner
Making the Case for the Role of Emotions in Young Children

- Children who begin school without age-appropriate social and emotional competencies are at greater risk for school failure (Raver, 2002).
- Children who are accepted by their peers or display prosocial behaviors tend to be high achievers, whereas children who are rejected and aggressive tend to be at risk for school failure (Dishion, 1990).
- Antisocial/aggressive behaviors are associated with both short-term and long-term adjustment problems, such as criminality, unemployment, and mental health problems (Broidy et al., 2003).

Making the Case for Emotions

- Emotional competence is central to children's ability to form relationships and interact with peers. (Denham & Burton, 1996).

Emotional Competence

“...A growing body of literature suggests that a deliberate and comprehensive approach to teaching children social and emotional skills can: 
- Raise their grades and test scores,
- Bolster their enthusiasm for learning,
- Reduce behavior problems,
- Enhance the brain's cognitive functions”

(Edward Week, 2003).

Making the Case for Emotions (Cont’d)

Emotional Development in Early Childhood: 2-5 years (Izard et al., 2002)

- Rapid and remarkable advances during this age period: increases in emotion regulation, emotion vocabulary, feeling-thought connections.
- This age period represents a “sensitive period” for developing accurate perception of emotion in self and others.
- The latter part of the preschool years in particular may represent a sensitive period for emotion-induction techniques that foster the development of empathy, sympathy, and prosocial orientation.

What are the Dimensions of Emotional Development?
**Key Dimensions of Emotion Competence**

- Three key dimensions of emotion management skills:
  - Emotion encoding and decoding
  - Emotional understanding
  - Emotional regulation

**Skills of Emotional Competence Functionalist Approach (Saarni, 1999)**

- Awareness of one’s emotions
- Ability to discern others’ emotions
- Ability to use a vocabulary of emotions
- Capacity for empathy and sympathy
- Ability to understand that one’s emotional state may not be related to expression of emotions
- Emotion regulation
- Awareness that emotions are communicated in relationships
- Capacity for emotional self-efficacy

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**Emotional Intelligence**

Emotional intelligence, "is a type of social intelligence that involves the ability to monitor one’s own and others’ emotions, to discriminate among them, and to use the information to guide one’s thinking and actions"

(Mayer & Salovey, 1993).

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**Books by Daniel Goleman**

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**The Importance of Peer Relationships**

-Predicting children’s early school adjustment (Ladd, 1990):
  - Children who begin kindergarten with a number of classroom friends during school entrance develop more favorable school perceptions by the second month.
  - Making new friends in school is associated with gains in school performance.
Empathy: The Critical Dimension

- Empathy, in particular, plays a critical role in helping individuals desist aggressive behaviors, and is one of the most desirable of personality traits because:
  - Not only does it provide a buffer against antisocial and aggressive behaviors,
  - Empathy also is critical due to its positive association with prosocial behaviors (e.g., sharing, helping, cooperating).

SEL and the Relation to School Success

"Children's understanding of their emotions, their ability to talk about them, and their ability to read the emotion signals of others provide them with some very valuable skills that not only affect their personal and social adjustment but their academic performance, as well."
(Izard, 2005)

Early Emotional Adjustment Predicts Early School Success

- Research has found that children who act in antisocial ways are (Ladd et al., 1999):
  - Less likely to be accepted by classmates and teachers,
  - Participate less in classroom,
  - Do more poorly in school than their prosocial counterparts, net of the effects of children’s pre-existing cognitive skills and family backgrounds

Other Research Findings

- Social emotional literacy reduces violence and promotes prosocial behaviours (Schonert-Reichl, Smith, & Zaidman-Zait, 2002; Weissberg & Greenberg, 1998).
- Changes in academic achievement in Grade 8 could be better predicted from knowing children’s social competence 5 years earlier than from knowing grade 3 academic achievement (Caprara et al., 2000).
- Prosocial behaviours exhibited by students in the classroom were found to be better predictors of academic achievement than were their standardized test scores (Wentzel, 1993).
Making the Case . . .

- Young people who are socially and emotionally intelligent are happier, and fulfill their current and future roles in life more effectively. They become better students, family members, and friends—and later-better workers, parents, and citizens.” Daniel Goleman, Author of Emotional Intelligence
- IQ can contribute about 20% of success in life, that means another 80% is left. There are many ways in which your destiny in life depends on having the skills that make up social and emotional intelligence.

What is Social and Emotional Learning (SEL)?

What is Social and Emotional Learning?

- "Social emotional competence measures the ability to understand, process, manage, and express social and emotional aspects of our lives” (Cohen, 2001).
- Social and emotional learning refers to the process and methods used to promote social and emotional competence.

5 Core Social and Emotional Competencies

Self-Awareness
- Accurate self-perception
- Recognizing one’s strengths, needs, and values
- Self-efficacy—sense of personal impact
- Identifying and recognizing emotions

Self-Awareness
- Recognizing one’s emotions and values as well as one’s strengths and limitations
- Managing emotions and behaviors to achieve one’s goals
- Showing understanding and empathy for others
- Making ethical, constructive choices about personal and social behavior
- Forming positive relationships, working in teams, dealing effectively with conflict

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Self-Management

- Impulse control
- Stress management
- Self-motivation and discipline
- Goal setting
- Organizational skills

Zins, Bloodworth, Weissberg, Wahlberg, 2004

Social Awareness

- Perspective taking
- Empathy
- Listening skills
- Appreciating diversity
- Respect for others

Zins, Bloodworth, Weissberg, Wahlberg, 2004

Relationship Skills

- Communication
- Social engagement
- Building relationships
- Working cooperatively
- Negotiation skills
- Refusal skills
- Conflict management
- Help seeking and providing

Zins, Bloodworth, Weissberg, Wahlberg, 2004

Responsible Decision Making

- Problem identification
- Situation analysis
- Problem solving
- Evaluation
- Reflection
- Personal, moral, and social responsibility

Zins, Bloodworth, Weissberg, Wahlberg, 2004

Social and Emotional Learning Across the Globe

How Do You Promote Social and Emotional Competency?

Skill development
- Providing explicit skills instruction for all students

Learning environment
- Creating safe, caring, well-managed learning environments
WHAT DOES SCHOOLWIDE SEL LOOK LIKE?

A Few Recent Books


Collaborative For Academic Social And Emotional Learning (www.casel.org)

Important Websites

- Collaborative for Academic and Social and Emotional Learning (CASEL) www.casel.org
- Centre for Social and Emotional Education www.csee.net
- Developmental Studies Center (Caring School Communities Project www.devstu.org

Why Promoting SEL is Important?

Students who receive SEL instruction are:
- More connected to teachers and school
- More engaged in learning
- More motivated to learn
- More well behaved/less likely to engage in problem behavior
- Able to perform better on achievement tests and get better grades


Why is SEL Important?

"Children’s understanding of their emotions, their ability to talk about them, and their ability to read the emotion signals of others provide them with some very valuable skills that not only affect their personal and social adjustment but their academic performance, as well."
Why Promoting SEL is Important? (Cont’d)

- Meta-analysis
- 213 school-based SEL programs
- 270,034 kindergarten through high school students
- SEL programs yielded significant positive effects on:
  - Social-emotional competencies and attitudes about self, others, and school
  - Increased prosocial behaviors and reduced conduct and internalizing problems
  - Improved academic performance on achievement tests and grades


Effects: Statistically significant for a minimum of six months after the intervention.
- School staff effectively conducted SEL programs: Routine educational practices.
- Two variables moderated positive student outcomes: SAFE practices (Sequenced + Active + Focused + Explicit) and implementation problems.
- No additional benefits of multi-component programs over single-component (i.e., classroom-only) programs.


Early Experience is Important

- Increasing evidence about the significance of the first 5 years of life for early brain and behavioural development.
- Research studies suggest that early experiences and early social/emotional adjustment directly influence later school experiences and progress (Ramey & Ramey, 1999) and health outcomes.

Early Experience is Important

- Child Development (SRCD)
- 1300 children from birth to age 15
- Compared to teens who attended low-quality care, teens who attended high-quality child care centres:
  - Score better on tests of cognitive and academic achievement
  - Fewer behavioural problems (e.g., rule breaking)
- Findings consistent among children from middle-class, low income, two-parent as well as single-parent families.

Part IV
The Developing Brain and Young Children’s Social and Emotional Learning.

Understanding the human mind in biological terms has emerged as the central challenge for science in the 21st century!

“We want to understand the biological nature of perception, learning, memory, thought, consciousness, and the limits of free will.”

E.R. Kandel, 2006
Objectives

- Overview of the structure (Anatomy) and function (Physiology) of the Nervous System.
- Fundamental Processes of Brain Development
- Neurobiological bases of Emotions and their Connection to Social and Emotional Learning

Why do we Need a Nervous System?

The primary function of the nervous system is:
- BEHAVIOUR
  - Internal regulatory functions
  - Perception of environmental events

Why do we Need to Study the Brain?

The task of Neuroscience is to understand the mental processes by which we: Perceive, Think, Create, Predict, Plan, Act, Remember, Learn, Feel, and Love...

Scientific Publications About the Brain in the Last 60 Years

Biology merged with other fields and turned its attention to the ultimate challenge: To understand the biological nature of the human mind

This new science of mind is based on five principles:
1. Mind and brain are inseparable:
   - The brain constructs our sensory experiences, regulates our thoughts & emotions, and controls our actions
   - The brain is responsible for the actions that characterize us as humans

2. Each mental function in the brain (from a simple reflex to language, music or art) is carried out by specialized neural circuits in different areas of the brain
This New Science of Mind is Based on Five Principles (Cont’d):

3. All of the neural circuits are made up of the same elementary signaling units: the nerve cells (neurons)

4. The neural circuits use specific molecules to generate signals within & between nerve cells.

This New Science of Mind is Based on Five Principles (Cont’d):

5. These specific signaling molecules have been conserved though millions of years of evolution, from bacteria and yeast, to worms, flies, snails, rodents and humans

Divisions of the Nervous System

Central Nervous System (CNS)

Central Nervous System
Peripheral Nervous System (PNS)

What is the Nervous System Made Out of?
100 billion neurons and supporting (glial) cells.

Where do Neurotransmitters Come From?

Autonomic Nervous System

Synaptic Connections

Neurotransmitters are Released at the Synapse
The Human Brain

• Weights ~ 3 pounds (1300-1400g)
• Represents ~2% of body weight
• Reaches 90% adult weight at age 5 years
• Utilizes ~20% of total glucose at rest
• Utilizes ~25% of oxygen consumption
• At rest, the brain uses oxygen and glucose at ~10 times the rate of the rest of the body
• Is made out of 100 billion neurons (~same number of stars in the Milky Way)
• There are 10 to 50 times more glial cells
• Each neuron makes between 1 and 150,000 connections
• More genes (out of the 23,000) are active in the brain cells than in any other tissue of the body (the function of ~6,000 genes is unknown)

Which force plays a stronger developmental role:
Genes or Environment?
“Nature vs. Nurture Debate”

In reality, there is no debate.
“Most of what we are is the result of the interaction of our genes and our experiences. Genes set boundaries for human behaviour, but within these boundaries there are immense room for variation determined by experience, personal choice and even chance.”
J.J. Ratey, 2001
A Structure for Deoxyribose Nucleic Acid
J. D. Watson and F. H. C. Crick
April 25, 1953 (2), Nature (3), 171, 737-738

In 1962 Watson, Crick and Wilkins received the Nobel Prize in Physiology or Medicine

"for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material"

DNA: The Secret of Life!
1953

Homo sapiens: 23,000 genes

Editorial: Take comfort in human neurogenesis

The adult human brain is able to generate new neurons!

Newborn Neurons Like to Hang with the In-Crowd
May 7, 2007 Nature Neuroscience

- Newly born neurons in the hippocampus were marked by a green dye enabling the Salk researchers to follow their fate.
- Between 3 and 4 weeks, newborn neurons sent out dendritic filopodia.
- Only about 50% of all newly born neurons manage to successfully integrate into the existing network of brain cells, in mice living in bare standard cages.
- Providing the mice with a stimulating, enriched environment—large cages filled with running wheels, colored tunnels and playmates—boost the number of neurons that manage to hook up with the existing network to 80%

Using one’s brain cells is the best way to optimize brain function throughout one’s lifetime!

2006 SB Half Marathon (21.1 Km)
Vancouver, Canada

“You always complain that I don’t know how to show my emotions, so I made these signs.”
An emotional state has two components:
1. One evident in a characteristic physical sensation: emotion (to move)
2. The other as a conscious sensation feeling

Emotions are adaptive.

Basic Emotions

- Happiness
- Sadness
- Anger
- Disgust
- Surprise
- Fear

How are Feelings and Emotion Represented in the Brain?

- Affective Neuroscience studies this question
- Psychologists, psychiatrists, neurologists, philosophers, and biologists bring together their knowledge to seek a better understanding of emotions and feelings at the neurobiological and psychological levels
- Techniques: functional neuroimaging, behavioural experiments, electrophysiological recordings, etc., (Dalgleish, 2004).

Where Emotions Come From?

- Distinct nerve cell circuits within the brain mediate emotional states and feelings
- Conscious feeling is mediated mainly by the cerebral cortex of the frontal lobes

Where Emotions Come From (Cont’d)?

Emotional states are mediated by a family of peripheral, autonomic, hormonal, and muscular responses controlled by:
- the amygdala
- the hypothalamus,
- and the brain stem.

These automatic (unconscious) components of emotion prepare the body for action and communicate our emotional states to other people.
How are Feelings and Emotion Represented in the Brain?

- 1st clue to the representation of emotion in the limbic system was found in 1939.
- Klüver and Bucy: Bilateral removal of the temporal lobes in monkeys (including the amygdala) produced that wild monkeys, became tame and fearless & flattened emotions.

The Amygdala

- Main structure for emotional experience.
- Intervenes in the physical expression of emotion & in conscious feeling.
- Mediates both inborn and learned emotional responses.
- Necessary for context conditioning & perception of social signals.

The Prefrontal Cortex (PFC) plays a role in control of emotional behaviour. Phineas Gage, September 13, 1848.

- PG became childish, irresponsible, and thoughtless of others.
- Unable to make or carry out plans.

PFC is the convergence zone of affect and cognition.

Fundamental Processes of Brain Development and their Connection to SEL

- Each individual’s abilities result from the genetic history and environmental stimuli.
- The capabilities of the cortex, such as analyzing and processing, are shaped by the input that it receives during particular critical periods occurred early in development.

Experience During Critical Periods is Essential for Development

- Stages of Brain Development in an Infant:
  - Vision Development
  - Speech Development
  - Emotional Development
  - Math/Logic
  - Social Attachment and Skills
  - Motor Development
  - Peer Social Skills
  - Language
Inadequate social and emotional experiences in the early environment could result in compromised higher level neural systems whose task is to provide information necessary to bond, imitate, and respond in socially appropriate ways. The best current strategy to prevent these difficulties is to create sufficient enriched environments so that critical period developments proceed optimally.

Environmental factors, particularly the affective environment in early life, produce experience-dependent changes in brain structure and function. The brains of our children are constantly being shaped, literally molded by experience, both of a negative and positive sort. We must take the reins and promote positive brain changes by cultivating healthy social-emotional habits.

An enriched environment provides optimal conditions for enhanced exploration, cognitive activity, social interaction and physical exercise (Sale, Berardi, & Maffei, 2009). This kind of stimulation has a variety of effects on the brain, which have been documented in several species of mammals from mice and rats up to cats and monkeys.

Brain structure is constantly modified, chemical synapses can be modified during development through experience and learning (Kandel et al., 2000). Emotional experiences have the potential to generate plastic changes in brain circuits that not only influence how children respond to emotional signals from their social environment, but also how they perceive, interpret and understand these signals (Goldsmith, Pollak, & Davidson, 2008).

New advances in affective and cognitive neuroscience will help to explain how affective environment (e.g., social and emotional learning preventive interventions) in early life produces experience-dependent changes in brain structure and function that underlie behavioural outcomes. (Goldsmith et al., 2008; Diamond et al., 2007; Greenberg, 2008)
Part V
How Can We Nurture Social and Emotional Learning’s Growth?

Three Components of Successful SEL

BC’s Performance Standards for Social Responsibility
“Provides a framework that schools and families can use to focus and monitor their efforts to enhance social responsibility among students and to improve the social climate of their schools.”

Social and Emotional Teaching Strategies: Some Examples
(Taken from: Center on the Social and Emotional Foundations for Early Learning)
http://www.vanderbilt.edu/csefel/

Strategies for Developing Friendship Skills
- Modeling
- Modeling with video
- Modeling with puppets
- Preparing peer partners
- Buddy system
- Direct modeling

Activities to Support the Development of Friendship Skills
- Friendship Can
- Planting Seeds of Friendship
- Friendship Tree/Compliment Tree
- Books about Friendships
- Friendship Quilt
- Friendship Journal
- Music/Songs

Taken from: Center on the Social and Emotional Foundations for Early Learning
**Activity “Table Talk”**

With your table mates...

Write a list of feeling words that you would most want to teach the children you work with

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**Enhancing Emotional Literacy...**

- Direct Teaching
- Indirect Teaching
- Use of Songs and Games
- How would you feel if...?
- Checking In
- Use of Children’s Literature

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**Direct Teaching of Feeling Vocabulary**

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**Classroom Example**

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**Example**

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**Indirect Teaching**

Provide emotional labels as children experience various affective states
If you are happy and you know it...add new verses to teach feelings

- If you’re sad and you know it, cry a tear. "Boo hoo"
- If you’re mad and you know it, use your words “I’m mad”
- If you’re scared and you know it ask for help, “help me”
- If you’re happy and you know it, hug a friend
- If you’re tired and you know it, give a yawn.

Sample Game

How does your face look when you feel proud?

What makes you feel proud?

Make a ______ face.

Tried Alegro Frustrado

Play: How Would You Feel If?

Discuss typical situations that happen when children are together: “How would you feel if this happened to you?”

Example: James wanted to play ball with Katie and Stephen today, but they wouldn’t let him. How do you think that made him feel? How do you think you would feel if that happened to you? What could James try next time?

Checking In...

Teachers and children can “check in” each morning by choosing a feeling face that best describes their affective state and putting it next to their name. Children can be encouraged to change their feeling faces throughout the day as their feelings change.

Use of Children’s Literature
On Monday
When it Rained
Glad Monster
Sad Monster
Hands Are Not
for Hitting

Book Examples...

Teaching Empathy

- Model empathy
- “Alike” & “different” activities
- Draw children’s attention to how others are feeling
- Reinforce empathy behaviors

Characteristics of Early Childhood Settings That Foster Emotional Literacy

- Books about feelings are read and are available in the story center
- Photos of people with various emotional expressions are displayed
- Teachers label their own feelings
- Teachers notice and label children’s feelings
- Activities are planned to teach and reinforce emotional literacy
- Children are reinforced for using feeling words
- Efforts occur daily

When You Have A Problem

- STOP, CALM DOWN, & THINK before you act
- Say the PROBLEM and how you feel
- Set a POSITIVE GOAL
- Think of lots of SOLUTIONS
- Think ahead to the CONSEQUENCES
- GO ahead and TRY the BEST PLAN

Controlling Anger and Impulse

- Recognizing that anger can interfere with problem solving
- Learning how to recognize anger in oneself and others
- Learning how to calm down
- Understanding appropriate ways to express anger

Turtle Technique

- Recognize that you feel angry.
- “Think” Stop.
- Go into shell. Take 3 deep breathes. And think calm, coping thoughts.
- Come out of shell when calm and think of a solution.
Problem Solving Steps

Would it be safe?
Would it be fair?
How would everyone feel?

The Solution Kit...Some ideas!

Happiness Boosters

Safety and Sound:
An Educational Leader’s Guide to Social and Emotional Learning Programs

Ratings on Five key SEL competencies:
- Program effectiveness: Provides evidence of impact on student behaviors from well-designed studies
- Provides on-going support for professional development
- Promotes consistent use of student assessment tools
- Promotes use of classroom implementation supports to assess progress and guide improvement
- School-wide coordination, family partnerships, community partnerships
Representative Programs

- Link between theory and practice: Theoretical framework that is based in what we know about risk and protective factors
- Developmental evaluation methodology: Consider the developmental tasks of children face as well as the varying contexts that will challenge social and emotional competence
- Assessment of implementation promotion and integrity.
- Have empirical support
- Examine the link between exposure (dosage) to outcomes.

Social and Emotional Learning Programs

- Examples of universal prevention programming in the SEL area.
- Curriculum for preschool-aged children.
- Have been selected based on the guidelines developed by CASEL for effective social and emotional learning programs.
- Guidelines for the evaluation of other SEL Program.
- Empirical evidence of program effectiveness and program implementation is required.

PATHS/Preschool PATHS

- Areas Targeted: Emotional awareness, self-control, interpersonal problem solving, peer relationships
- Preschool PATHS: Adaptation of the Promoting Alternative Thinking Strategies curriculum (PATHS) – universal, teacher-taught SEL curriculum designed to improve children’s social competence and reduce problem behaviours.
- Based on the ABCD (Affective-Behavioural-Cognitive-Dynamic) model of development (Greenberg & Kusché, 1993; Greenberg, Kusché, & Speltz, 1991).
- Age Group: Preschool/K-6
- Components:
  - 30-45 lessons, main areas:
    - ID feelings
    - Relaxation through deep breathing
    - Perspective taking
    - Study skills

PATHS/Preschool PATHS Evidence-Based and Proven Effectiveness!

Domitrovich, Cortes, & Greenberg
The Journal of Primary Prevention, 2007

- Randomized clinical trial with a wait-list control group – 246 preschool children in Head Start.
- Child assessments and teacher and parent reports of child behaviour assessments.
- Students exposed to the PATHS Preschool program scored significantly higher on standardized tests of emotional and social competence than students not exposed to the program.

Tools of the Mind

- Areas Targeted: Children’s Executive Function Skills (EFs) (inhibitory control of attention and action (i.e., resisting habits, temptations, or distractions), working memory (i.e., mentally holding and using information), and cognitive flexibility (i.e., adjusting to change):
- EFs: Critical for success in school and life.
- Age Group: Preschool
- Components:
  - 40 activities
  - Children working in pairs or engaging in pretend play
  - Applies theories of Luria and Vygotsky

Tools of the Mind

(Mordoa & Leong, 2007)
**Tools of the Mind**

**Evidence-Based and Proven Effectiveness!**

Diamond, Steven-Barnett, Thomas, & Munro

*Science, 2007*

- Evaluation for the first time of the effectiveness on EFs of the "Tools of the Mind."
- 147 five-year-olds in a low-income, urban school district in the Northwest.
- Comparison of the "Tools of the Mind" to another curriculum—though the same academic content but did not address EFs.
- Participants were well-matched and differed only in exposure.
- The "Tools of the Mind" program improves EFs in preschoolers in regular classrooms with regular teachers at minimal expense.
- Exposure to program accounted for more variance in executive functions that age or gender and remained significant when controlled for those.
- Better cognitive control improves academic performance.

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**Conclusions**

- It is critical to the future of our society that we identify the factors that assist children to become competent, caring adults and productive citizens.
- We all share a stake in the development of children’s emotional and social competence and in identifying the processes that facilitate or undermine it.
- The research supports the need for coordinated efforts that attend to the promotion of children’s positive academic and social-emotional development.

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**Take Home Messages**

- The preschool years are a transitional point in development— one in which there is an increased time of risk— as well as an opportunity for intervention and prevention.
- There is an inextricable link between social-emotional competence and school success— this link becomes particularly salient during the transition to kindergarten.
- All research points to the importance of fostering young children’s social and emotional development.

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**Selected References**


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**A Few Useful Websites**

- www.casel.org Centre for Academic and Social and Emotional Learning
- http://www.goodeharper.com (some good teaching guides)
- http://www.teachingoptions.org/ Educators for Social Responsibility
- http://www.nie.org/2009/ Association for Moral Education
- http://www.casel.org/PromotingAcademicAchievement.pdf (a paper linking social-emotional learning to achievement)
- http://www.prevention.gwu.edu/ (prevention programs and research)
- http://www.colorado.edu/eap/thoughts/default.htm (Model programs)
- http://niper.ac.edu/~jimmy/moralEd.htm (Resources and research in moral education)

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**Useful Websites (cont’d)**

- Development Studies Center (http://www.dsrc.org) (papers presented at a conference on character and community presented at the Whitehouse in June, 2002)
- Center for the Fourth and Fifth Rs: Respect and Responsibility (http://www.searchinstitute.org)
- Roots of Empathy Primary Prevention Program (http://www.roots-of-empathy.com)
- Center for the Fourth and Fifth Rs: Respect and Responsibility (http://www.searchinstitute.org)
- Economic and Research Development (http://www.rand.org)
- Search Institute (http://www.searchinstitute.org)
- Search Institute (http://www.searchinstitute.org)
- Search Institute (http://www.searchinstitute.org)