

CAREGIVER'S CO-CONSTRUCTION OF CHILDREN'S VOICE: EXPLORING PRE-  
VERBAL COMMUNICATION AND RELATIONSHIPS

By

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## **Abstract**

In this project I describe in what ways caregivers co-construct children's voice dialogically as they respond to children's behaviours. The purpose of my project is to demonstrate pre-verbal and preschool children's behaviours as a valuable form of communication. I describe voice from a Bakhtinian perspective as all sounds and gestures made by an individual as an attempt to communicate. I frame my project within the sociocultural and critical theoretical perspectives, and I draw from emotion theory and the constructs of temperament and sensory processing. I present a review of the literature focused on how children learn about their worlds through their actions and interactions with others. I highlight research recommending paying more focused attention to interactions with children with more reactive emotional responses. I discuss a pedagogy of listening and dialogic pedagogy as methods to use with children. I subsequently describe scenarios from my own work experiences with children, and how I responded to children in ways that aligns with the research I present. This project includes a one day interactive workshop focused on pre-verbal language as the child's first language, how voice is influenced by others, and how this relates to constructs of temperament and sensory processing. I discuss my conclusions which reflect that children's behaviour is a valuable form of communication and should be acknowledged so the child becomes more connected with their body and voice. Finally, I consider limitations to the research reviewed, and I make recommendations for educators to become familiar with the constructs of temperament, sensory processing, and pedagogical approaches focused on how children create meaning in their world. I furthermore discuss recommendations for future study and practice.

## Table of Contents

<b>Abstract .....</b>	<b>i</b>
<b>Table of Contents .....</b>	<b>ii</b>
<b>Acknowledgements.....</b>	<b>iv</b>
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
<b>Key Terms .....</b>	<b>1</b>
<b>Context and Personal Background .....</b>	<b>3</b>
<b>Overview: Theoretical Background .....</b>	<b>5</b>
<b>Introduction to the Literature Review .....</b>	<b>6</b>
<b>Rationale and Importance of Project .....</b>	<b>7</b>
<b>Purpose, Significance and Guiding Questions .....</b>	<b>8</b>
<b>Summary and Organization of the Project .....</b>	<b>9</b>
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>10</b>
<b>Sociocultural Theory.....</b>	<b>10</b>
<b>Critical Theory .....</b>	<b>11</b>
<b>Emotion Theory.....</b>	<b>12</b>
<b>Bakhtin and Voice .....</b>	<b>14</b>
<b>Pedagogical Approaches.....</b>	<b>15</b>
<b>Review of the Literature.....</b>	<b>16</b>
<b>Infant and Toddler Research Exploring Voice.....</b>	<b>16</b>
<b>Observing the Voice of Pre-verbal Children .....</b>	<b>17</b>
<b>Developing a Sense of Control about the World Through Relationships .....</b>	<b>18</b>
<b>Temperament and Sensory Processing Styles and Relationships.....</b>	<b>19</b>

Effects of Toxic Stress from Reactive Temperaments .....	21
<b>CHAPTER THREE: CONNECTIONS TO PRACTICE .....</b>	<b>23</b>
Creating a Classroom Environment Focused on Children’s Voices .....	29
Outline of Workshop: “Caregivers Co-construction of Children’s Voice: Exploring Pre-verbal Communication and Relationships” .....	34
<b>CHAPTER FOUR: CONCLUSIONS .....</b>	<b>37</b>
Limitations and Recommendations for Future Study and Practice .....	40
<b>References .....</b>	<b>42</b>
<b>APPENDIX A .....</b>	<b>49</b>
<b>APPENDIX B.....</b>	<b>50</b>
<b>APPENDIX C.....</b>	<b>51</b>



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## **CHAPTER ONE: INTRODUCTION**

In this capstone project I explore the non-verbal communication of pre-verbal and preschool children. I examine how a child's life experiences contribute to the theories they are creating about the world and themselves and how these are communicated through their voice. I describe voice from a Bakhtinian perspective where voice is all sounds and gestures in view of another as an attempt to communicate and be understood. I discuss observing the behaviour of pre-verbal and preschool children to learn what the child is communicating about how they explore and experience their worlds. I also examine in what ways educators' responses to the child's behaviours co-constructs the child's voice. I further present research describing the importance of supporting children's development with the awareness of the child's temperament and sensory processing and how relationships influence the child's later cognition and capacity to be in control of their emotions and behaviours.

The following are the definitions of key terms I use throughout my project. Next in this chapter I describe the context and my personal background leading up to this project. I also introduce the theoretical framework informing this project and the research supporting my topic. Subsequently, I discuss my rationale and purpose. Lastly, I present my guiding questions and an overview for how this project is organized.

### **Key Terms**

#### **Dialogism**

Bakhtin (1981) described the reciprocal interaction of utterances between others as being dialogical in nature. *Dialogism* implies all non-verbal and verbal utterances that occur in view of others are social in nature and is an attempt to communicate views of oneself (White, 2011, 2016).

## **Pedagogy**

*Pedagogy* in early education involves the beliefs and values for how children learn and the methods used for teaching. Farquhar and White (2013) discussed current theoretical questions exploring pedagogy ask: “What does it mean to teach? What does it mean to learn? What does it mean to be human? What and whose knowledge is important?” (p. 822).

## **Reactivity**

“The term ‘*reactivity*’ refers to the latency, rise time, intensity, and duration of responsiveness to stimulation” (Rothbart, 2015, p. 180).

## **Sensory Processing**

Dunn (2001) discussed four patterns of *sensory processing* and proposed these may contribute to temperament. These patterns contribute to how a child approaches the world and how their sensory systems respond to the world. The four patterns of sensory processing described by Dunn (2001) are low registration, sensory seeking, sensory avoidant and sensory sensitivity.

## **Temperament**

The construct of *temperament* refers to the individual differences in responses to emotional, physical, attentional, reactive and self-regulatory processes. These are theorized to be constitutionally based and relatively stable over time (Rothbart, 2015). In this project I refer to Rothbart & Jones’ (1998) definition of temperament as “the relative strength of children's emotional reactions and related behaviors” (p. 479-480) and how they manage these.

## **Toxic Stress**

According to the Centre on the Developing Child (2005, 2010, 2015), *toxic stress* is the result of on-going activation of stress levels that are damaging to the neural circuitry of the brain

and can have long term implications for later learning.

## **Voice**

The concept of *voice* has been explored from a variety of perspectives each offering their own definition. This project focused on voice from a Bakhtinian (1981, 1986) perspective.

Voice according to Bakhtin (1981) is the individual's speaking consciousness. Voice is also the speakers' ability to be understood by others and to create change in their worlds. Bakhtin (1986) asserted that voice is forever changing as we move through space and time and all interactions with others within specific social and political eras continues to inform voice. Bakhtin (1981, 1986) further discussed voice as being presented to others through spoken and written language, as well as any sound, gesture, or movement that occur with others present (White, 2011).

## **Utterance**

Bakhtin (1981, 1986) further broke down the notion of voice to consist of *utterances*, any gesture, movement or sound that is visible to others.

In the following section, I provide the context for this project and how this project is relevant to my work with children.

## **Context and Personal Background**

I am a preschool teacher in a rural co-operative preschool in Saanichton, Vancouver Island, British Columbia. I also work as a Child, Youth and Family Mental Health Counsellor at a children's psychiatric hospital in Victoria, British Columbia. This hospital provides mental health assessment for children and youth living on Vancouver Island and other Peninsula Islands. I have also worked as a teacher's assistant on call in the Greater Victoria school district.

I started to explore the concept of voice while obtaining my Bachelor of Arts in Child and Youth Care at the University of Victoria and again during my work experiences at the children's

hospital. I regularly work at the hospital with children exhibiting difficult behaviours and who appear to have difficulty remaining in a relationship that is not fraught with verbal and physical violence. During this time, I discovered how spoken voice is important for children's social and emotional development (Campbell, Denham, Howarth, Jones, Whittaker, et al., 2016; Whitebread & Basilio, 2012). I learned how it was important for children to articulate their emotions and what may have triggered their emotional response based on what had just occurred, or based on past experiences, so they could start to gain control of their own behaviour (Campbell et al., 2016). This awareness further appeared to support the space to allow for problem-solving with the child and finding new ways of responding to difficult emotions (Diamond, Barnett, Thomas & Munro, 2007; Greene, 2005; Greene & Ablon, 2006). I was also curious how my responses to the child may impact their behaviour because children appeared to be trying to gain a sense of control through their actions. This further led me to wonder how to support the child's spoken voice during the earlier years of their development as this is the time during which verbal skills emerge (CDC, 2015).

When I returned to college to obtain my diploma in Early Learning and Care through Northern Lights College, I was drawn to theory discussing the importance of children's early behaviours and how adults respond to these (Gonzalez-Mena & Eyer, 2012; White, 2011; 2016). I further learned throughout my studies in early education how we silence children's voices when we remain focused on developmental theories and curriculum that dictates what a child should be learning (Canella, 1997; Dahlberg & Moss, 2005) instead of focusing on what the child knows and how they continue to learn (Hedges, Cullen, & Jordan, 2010). Since then, I have subsequently expanded my theory of voice to also include pre-verbal language (Bakhtin, 1981, 1986; White, 2011, 2016). I explore some of these ideas within my project.

In the following section, I briefly discuss the theoretical framework, constructs and research informing this project. These are discussed more extensively in chapter 2.

### **Overview: Theoretical Background**

The theoretical framework guiding my project is grounded in Vygotsky's (1978) socio-cultural theory of children's learning, Canella's (1997) critical perspective focused on children's development, and Bahktinian (1981, 1986) theory discussing dialogism and voice. I also explore Izard's (2002) emotion theory, and I investigate the constructs of temperament and sensory processing and how these can impact the child's dialogical interactions informing their voice. This project is further informed by the notions of a pedagogy of listening and dialogical pedagogy.

Socio-cultural theories focus on the subjective experience of the individual (Arhar, Holly & Kasten, 2001; Gannon & Davies, 2007). In research, this implicates the observer as being an important contributor to behaviour rather than a passive observer (Arhar et al., 2001). I explore how Vygotsky (1978) contributed to this view by drawing attention to the essential role adults play in children's learning. I also examine how critical theorists further drew attention to developmental theories that contributed to a world view that values facts and one truth over the individual experience. Canella's (1997) discussion highlighted how developmental theories have created the construct of childhood. She further described how developmental theories are often used to control children resulting in the child's skills being ignored and their voices being silenced.

Bakhtin's work is discussed because he extensively wrote about the concept of voice, dialogism, and how an individual's sense of themselves is continuously shaped and influenced as they move through space and time with others (Bakhtin, 1981, 1986 cited in White, 2016).

Izard's (2002) emotion theory further guides my research as he emphasized the important role of emotions for children's learning and mental health. This project is additionally informed by two different methods of learning. Firstly, I discuss Rinaldi's (2001a, 2001b, 2004, 2006) pedagogy of listening as an approach based on the notion of children as actively seeking meaning in their environments. This approach honors educators using all of their senses to listen to children and being open to imagining different ways children gain their sense of being within the world. Secondly, I describe White's (2016) notion of dialogic pedagogy which draws attention to relationships as being the curriculum where all learning occurs.

### **Introduction to the Literature Review**

In this project I review literature focused on the prevalent absence of children's voice in research focused on their care. I focus on research conducted by Johansson (2011b) and White (2011) regarding the dialogic interactions shaping a child's voice. I refer to Cremin and Slatter's (2004) research article addressing the disregard for children's day to day behaviour when making decisions about their care. I include Johansson's (2011) discussion on how children are often marginalized and how children's voices are silenced. I further refer to Wallerstedt, Pramling, and Samuelsson's (2011) research article regarding children's aesthetic movement and how this conveys their sense of knowing. I also bring attention to Gonzalez-Mena (2004) and Gonzalez-Mena and Eyer's (2012) assertion that learning to have control and understanding of personal experience is the primary goal for infants and toddlers and how this is important to consider when observing and interacting with a child.

Finally, I review research focused on children's temperament and sensory processing and how these impact relationships with them. I refer to Chess and Thomas' (1986) article exploring the role of temperament for how parents support their child's behaviours. Other research I

discuss focusses on sensory processing (Dunn, 2001) and the relationship between sensory processing and temperament (De Santis, Harkins, Tronick, Kaplan & Beeghly, 2011). I mention research by Gourley, Wind, Henninger, and Chinitz (2013) because it draws attention to the rate at which children with behavioural difficulties were identified by parents with children who also struggled with sensory processing challenges. I also discuss how Rothbart and Jones (1998) argued for the importance of early educators' paying attention to the child's temperament and how temperament plays a role in children's development. I lastly review researchers Shonkoff (2000) and Shonkoff and Bales (2011) discussions on brain research demonstrating how different temperaments respond to the same stressful situations differently and how these responses can result in toxic stress. This discussion includes publications on learning influenced by researchers at the Center on the Developing Child (2005, 2010, 2011, 2015).

### **Rationale and Importance of Project**

The rationale behind my proposed project is based on the need I identify to draw more awareness to the value in children's pre-verbal communication and how professionals' responses to a child's pre-verbal behaviour co-constructs the child's voice. This topic is important to me because I have observed children who continue to act out in ways that further impaired their ability to focus on their learning (Blair & Diamond, 2008; CDC, 2010; 2011). Instead of focusing on learning, the child appeared driven by emotional and physical energies that occupied their attention. For example, when I worked as a teacher's assistant in an elementary school, a six-year-old child I was supporting was frustrating the school administration because he had been stealing the other children's belongings. The administrator spoke to me about the punitive measures they were taking to address the child's behaviour. As I supported the child during class time, he spontaneously started to tell me his story of being pushed down the stairs by his



caregiver. The child then showed me scars on their stomach from other abuse that occurred. It bewildered me how this child's story was being ignored as administrators tried to correct the child's behaviour of stealing.

I wondered if maybe the child's natural drive to meet his own needs was influencing his behaviour (Gonzalez-Mena & Eyer, 2012), and subsequently the child had learned adults will not meet his needs and take care of him. As discussed by McEvoy, Neilsen & Reichle (2004) in their text focused on functional behavioural assessments in early childhood education environments, difficult behaviours can become an effective response and an efficient way to communicate wants and needs if the child does not gain insight into their own behaviours. I also believe that the lack of regard for what a child's behaviour may be communicating often creates an identity imposed on the child based on other's perceptions. This may then limit the child's potential. For example, the image of the child as defiant or oppositional (Schmeck & Poustka, 2001).

I further assert this project is important because children like this six-year-old boy have a right to participate in their own care and education (MacNaughton & Smith, 2009). I believe non-verbal language is an important indicator of what is important to children and how they are experiencing their worlds (Johansson, 2011; White, 2011b). In conducting this capstone project, I hope my investigation influences caregivers and mental health workers to be sensitive to the child's inner and outer world as displayed by their behaviours. Throughout this project, I maintain that spoken voice is important to be able to articulate wants, needs, and ideas about oneself (Vollotton & Ayoub, 2011); however, it is essential to allow children the space and time to develop *their spoken voice* and to express and learn about themselves through their actions.

### **Purpose, Significance and Guiding Questions**

The purpose of this project is twofold: one is to allow space for discussions highlighting the value of a child's pre-verbal communication, and to draw attention to the child's voice in a society that tends to de-value communication that is not spoken or written. The second is to emphasize the importance of children as active participants in their own care and education, and the importance of developing the child's voice with them as a method of supporting their capacity for later learning. The questions guiding my project are:

1. In what ways do children's pre-verbal language communicate their understanding of the world before a child can articulate these verbally?

More specifically,

- a) In what ways do interactions with staff in early childhood settings impact the child's voice?
- b) In what ways do children's temperaments and sensory processing relate to these interactions?

### **Summary and Organization of the Project**

In chapter 1 I briefly described the theoretical framework that guides this project and research studies supporting my capstone project. In chapter 2 I discuss in-depth the theories and research informing this capstone project. In chapter 3 I discuss theoretical and research connections to my own practice experiences. I also provide the framework for a workshop that I will carry out with other professionals working with pre-verbal and preschool children as well as with mental health practitioners working with children with difficult to understand behaviours. In chapter 4 I summarize my conclusions, limitations and recommendations for future practice and research.

## **CHAPTER TWO: LITERATURE REVIEW**

In this chapter I elaborate on the socio-cultural and critical theoretical perspectives guiding my capstone project focused on pre-verbal children's voice. This chapter extends on Bakhtin's theory of voice, Izard's research on emotion theory for responding to and being with children, Rinaldi's pedagogy of listening within the Reggio Emilia Approach, as well as dialogical pedagogy as described by White. I lastly include a review of studies focused on the absence of pre-verbal children's voice when focusing on their care and how adults' responses to children's actions co-constructs the child's voice. Research reviewed also focuses on temperament and sensory processing and how adult's responses to these can contribute to later learning difficulties for the child.

### **Sociocultural Theory**

As introduced in chapter 1, from a socio-cultural perspective Vygotsky's (1978) ideas offer important theory regarding a child's developing voice and how adult's respond to and support the child. Vygotsky maintained children do not develop the skills they need for later learning on their own through maturation. Instead, he emphasized the reciprocal interactions between the child and adult which subsequently guides the child's learning. His theory also implicated the importance of non-verbal communication. He suggested children's earlier actions are without conscious thought; however, their actions have purpose and meaning. Vygotsky discussed his research with children as demonstrating how children are starting to recognize verbal utterances as signs with meaning, and as this is occurring children rely on the use of their visual field to gain an understanding of different signs in their environment, such as non-verbal communication. Children, however, will not use verbal signs for problem-solving until the child has internalized speech, which is a combination of internalizing the visual field (for example,

materials no longer must be present to think about them) and being able to hold concepts in the mind. Vygotsky further surmised egocentric speech occurs before a child internalizes speech, which is the process of the child speaking out loud as they play to solve concepts which they are trying to make sense. Subsequently, through both maturation and experience, the child will start to use the signs (verbal and non-verbal) as tools for problem-solving.

While Vygotsky (1978) drew attention to how adults guide the child's learning, critical theorists further emphasized the influences of the contexts and the era during which these interactions occur. This includes the essential need to pay attention and to value the skills young children possess, and the importance of how typically predominant developmental views tend to not value language that is not spoken or written.

### **Critical Theory**

As presented in chapter 1, Canella's (1997) book *Deconstructing Early Childhood Education* outlined how children and women's voices have historically been silenced. Canella (1997) demonstrated throughout her text the role of influential theorists and philosophers in how the Western world views children and their development. For example, Dutch scholar Hugo Grotius, in 1625, "proposed the existence of natural law, universal rules of nature that were independent of Christian theology" (Canella, 1997, p. 21). This proposal led to a belief in a scientific view of the world that is still prevalent in Euro-American dominant discourse today. This is demonstrated by the current demand to show evidence of learning outcomes in education by testing knowledge thorough written or oral standardized tests. Canella (1997) further asserted that early educators may rely only on developmental theories for the milestones a child must achieve by a certain age, and look to supporting the child to reach these within the context of their family and early learning environments. To be informed by our practice it is essential to be

aware of what beliefs, values and ideologies guide our work with children and to be aware how these were constructed during an era with specific political influences for what is considered as important. Canella maintained children's voices have been silenced by developmental theories which often do not highlight the valuable skills and knowledge young children possess. Instead, she insisted as educators, it is essential we stop and listen to the voices of the children we are making decisions for and to remain aware of how our beliefs and view of child development may limit and devalue children.

### **Emotion Theory**

As introduced in chapter 1, Izard's (2002) emotion theory offers a guide for understanding children's behaviours from an emotion perspective. In his research review he extensively outlined current research regarding the immense role of emotions on action, cognition, the child's perceptions, and the adaptive functions of emotions. He discussed how emotions and feelings often occur absent from our conscious awareness and how emotions and feelings have the power to influence actions before they register in "self-reflective consciousness" (Izard, 2002, p. 797). Izard suggested focusing on a child's awareness of their emotions and feelings to increase their self-awareness and their sense of personal agency. He also asserted supporting the child to understand feelings of anger because feelings of guilt and shame often occur after anger, and these feelings can have long term negative implications for a child's learning and mental health. Based on extensive research findings, Izard (2002) recommended seven principles for responding to children's emotions and supporting children to start to gain conscious awareness of their emotions and actions. The seven recommended principles are:

- 1) Focus on positive emotion induction and increasing experiences of pleasure and joy to increase learning opportunities.

2) Focus on the arousal of negative emotion as being vicarious and as occurring within the child.

Instead of focusing on discipline exhorting power over the child, or removing the child from others, focus on the child being self-regulated and then create opportunities for learning. For example: perspective taking, social stories and role playing for older children.

3) Social learning includes supporting the child to re-direct emotions like anger by doing a “benign moderate activity that captures and modulates the anger action tendency and the redirects it toward appropriate self-assertion and negotiation” (Izard, 2002, p. 804). Once the child is more self-regulated, then one can discuss with the child their anger, what may have caused it, and how to manage it.

4) Pre-verbal children and preschool children who are more reactive and impulsive require more focused strategies for supporting their emotional responses. These can vary due to “rapid and nonconscious processes” (p. 806).

5) Emotions are more complex than what is occurring in the immediate moment. Emotions are generated by “multiple and dynamically interrelated motivational conditions” (Izard, 2002, p. 806). For example, the child’s disposition, temperament, attributional style and perception of their life experiences.

6) A lack of positive social and emotional reciprocal interactions with caregivers can result in socio-emotional deprivation which then impairs emotion communication and causes severe problems with behaviour. Socio-emotional deprivation alters how the child responds to stress, social interactions, and their later capacity for developing cognitive skills (Izard, 2002).

7) Non-verbal behaviour is the primary means for communicating with others. Brain development must proceed through different neural regions, impacted by the environment, for the child’s behaviour to become organized (Izard, 2002).

In addition to emotion theory, Bakhtinian theory offers another guide to use when exploring the value in children's non-verbal communication and the dialogical nature of a child's voice, as described next.

### **Bakhtin and Voice**

Bakhtin (1981, 1986), as introduced in chapter 1, extensively described voice from a literary perspective. Bakhtin was a literary theorist and philosopher who lived in Russia during the 1900's. He was also a secondary school teacher. He described the process of voice as consisting of how, "I realize myself initially through others, from them I receive words, forms and tonalities for the formation of the initial idea of myself" (p. 138). In his later discussions, he extended his concept of voice beyond spoken and written language to also include actions, gestures, and sounds witnessed by others. His theories have been used to extend on dialogism and children's learning (Johannsson, 2011; White, 2011; White 2016) and to further reflect on the social and political perspectives impacting the individual's voice (Wertsch, 2009; White, 2009). Bakhtin drew attention to a process he called 'schoolification' which he argued dulled creativity and imposed authority by not allowing alternative perspectives for learning (White, 2016, p. 3). Instead Bakhtin maintained how within speech acts the writer and speaker are bound by genres that dictate how they must convey their thoughts in attempts to communicate to one another. According to Bakhtin (1981), when there is no shared understanding of the way ideas are being communicated then the communication is considered "alien" (p. 287) to the listener and not valued.

Bakhtin's emphasis on the concept of voice and dialogism can be used to demonstrate that for educators to understand children there must be an agreed upon acceptance for how children communicate. As introduced in chapter 1, Carla Rinaldi's "pedagogy of listening" and

Jane White's "dialogic pedagogy" offer alternative methods for listening to the voices of children.

### **Pedagogical Approaches**

Carlina Rinaldi (2001a, 2001b, 2004, 2006) reaffirmed that children communicate in many ways. Rinaldi is a consultant and past pedagogical director for early childhood education in the Reggio Emilia school in Italy. She has maintained the original view of the founder of the school, Loris Malaguzzi. Malaguzzi argued that if we only focus on skills like written and the spoken word, we are robbing children of their natural capacity to make sense of the world around them and how they communicate this in multiple ways (Dahlberg & Moss, 2005). Rinaldi subsequently promoted "*A pedagogy of listening*". Rinaldi (2006) maintained how it is essential to approach the child from a perspective of not knowing and instead to 'listen' through observations to their ideas, theories and questions and to treat them "seriously and with respect" (p. 12). She further argued for valuing and recognizing the child's capacity to making meaning in their world as demonstrated by how children engage in their day to day explorations. Rinaldi continues to promote using various media, for example, painting, music and dance, as a means for children to express their voice. Dahlberg and Moss (2005) also reflected on the 'pedagogy of relationships and listening' (p.87). They described children as "avid seekers of meaning and significance" (as cited in Rinaldi, 2006, p. 87) resulting in the child's interpretive theories about their world. These theories are demonstrated through their interactions with different materials. By taking the time to listen and challenge our own views for how we are observing children, we are also challenging the whole concept of pedagogy and the methods we use when working with them.



In chapter 1, I introduced White's (2016) dialogic pedagogy focused on Bakhtinian theory, and the ways in which this relates to the development of infants and toddlers. White (2011) conducted extensive research on the child's voice from a Bahktinian perspective and how voice is shaped through dialogism. Dialogic pedagogy emphasized paying attention to how children present themselves in the here and the now, instead of focusing on what normative development dictates the child should be demonstrating. White (2016) further described Bakhtin's' focus on the individual, their emotions and their developing consciousness as a "celebration of human agency" (p. 1). In the next section, the literature review, I expand on White's (2011, 2016) work.

### **Review of the Literature**

The theoretical framework guiding this project includes theories emphasizing the social origins of language, the role of emotions for learning, and how a child's voice is dialogically shaped from birth. The following review of the research literature focuses on pre-verbal children's voice and how adult's influence the child's voice. The research reviewed also focuses on temperament and how a child processes their surroundings through their sensory systems. These studies also emphasize how an adult influences the child's behaviour with the awareness of children's motives, their temperament and their sensory processing styles.

#### **Infant and Toddler Research Exploring Voice**

In Johannsson and White's (2011) publication, *Educational Research with Our Youngest: Voices of Infants and Toddlers*, different research articles document the voices of infant and toddlers' in child care settings by utilizing mixed methods research. Johannsson (2011) introduced the importance of the studies contained within the publication and discussed how children's voices are often overlooked as educational research focuses on voice as existing

only in the realms of the spoken word and written word. White's (2009) articles explored Bakhtin's theory of dialogism, voice, and how all utterances are social and communicating ideas of self, and are influenced by past and present contexts.

### **Observing the Voice of Pre-verbal Children**

Johansson's (2011) and White's (2011) publication included White's (2011) study focused on video-taping children in a daycare centre in New Zealand to further reflect and 'see' the child's voice from a Bakhtinian perspective. Within her findings, White focused on footage and dialogue of an eighteen-month old girl's interactions with different dolls, and she described the utterances of the child as demonstrating her voice. Dialogic analysis was conducted by coding video footage and conversations regarding footage. Her findings revealed the toddler as communicating her experiences by how she used the doll to communicate. The ongoing interactions observed over a period revealed the toddler as an active participant in creating meaning about herself. This was further influenced by the subjectivities of each person observing the child and their responses to her.

Wallerstedt et al.'s (2011) study, also presented in Johansson and Whites' publication, explored children's aesthetic movement as conveying a child's sense of knowing during a two-year project. Wallerstedt et al. invited educators to attend in-service meetings focused on developmental pedagogy and then followed the teachers as they instructed preschool children in different art activities. They discussed allowing the child ample opportunity to display what they know through activities that recognize how aesthetic movement communicates what the child knows. They further asserted the adult's role in offering language to describe what the child is demonstrating by their behaviour. This approach is defined by Wallerstedt et al. as developmental pedagogy. This theory was related to their observations of an educator's

interactions with preschool children during a music session using drums. They concluded from their study the importance of educators describing children's actions as allowing the child to then have a tool to control their own behaviour. They additionally related this to Vygotsky's (1978) theory of language as a sign for controlling behaviour and supporting children's actions by reflecting with them the expectations.

Cremin and Slatter's (2004) study adds to the dialogue regarding the development of a child's voice, and how even very young children's voice can be accounted for by using different methods to support their communication and to demonstrate what is important to them. Cremin and Slatter (2004) conducted a study in a nursery at a county college in the United Kingdom. Using a case study approach, they explored if it is "possible to reliably consult with young children about what they like" (p. 462). They reasoned that while current paradigms within education focus on considering children's knowledge and interests, children are still primarily considered through their family with a disregard for the child's day-to-day behaviours and interests. Cremin and Slatter (2004) found that, 5 out of 6 times, photographs taken by the children could be recognized by the adults as being important to the child. This subsequently supported their argument that it is possible to access the voice of children as demonstrated by the child's use of the camera.

### **Developing a Sense of Control about the World Through Relationships**

In their textbook *Infants, Toddlers and Caregivers: A Curriculum of Respectful, Responsive, Relationship based Care and Education*, Gonzalez-Mena and Eyer (2009) maintained that when we observe children's behaviours, it is essential to also recognize "learning to predict what effect they have on the world is a primary accomplishment of infants in early life" (p.21). Their textbook, based on the work of Magda Gerber extensively discussed Gerber's

method of interacting with children in orphanages in Budapest. In Gonzalez-Mena's (2004) article describing her observations of children at the orphanage, Gonzalez-Mena noted the children showed no signs of behavioural difficulties. One of the basic tenants of Gerber's approach according to Gonzalez-Mena and Eyer is infants, toddlers and preschoolers are always testing different theories about how the world around them operates. They further discussed how adults' responses to the child's attempts to be in control of their environments are important contributors to the child's theories about themselves and their ability to learn to manage their own behaviours.

The review of the research in the following section focuses on how sensory processing and temperament contributes to children's behaviours and how children become organized in their behaviours through relationships.

### **Temperament and Sensory Processing Styles and Relationships**

Chess and Thomas's (1986) book focused on *Temperament in Clinical Practice*, and discussed the importance of evaluating temperament prior to determining if a child's behaviour is problematic. Analysis of children's behaviour included using a temperament scale while observing how the child naturally explored their environment. Interviews with parents explored how they respond to or adapt the environment for their child's learning needs. Chess and Thomas demonstrated how behaviours that were initially viewed as maladaptive and problematic were reasonable approaches when awareness was drawn to the child's temperament in terms of how the child explored their environments, and how they managed stress.

Dunn's (2001) literature review extensively focused on temperament and sensory processing thresholds. Dunn (2011) discussed sensory processing is complex and everyone experiences daily sensory events differently. She further outlined the need to have interventions

with children focused on this knowledge. De Santis et al. (2011) in their study also exploring the relationship between “temperament, sensory processing and neurobehavioural theoretical perspectives,” examined how these constructs are related, and in fact, overlap.

Recommendations from this study suggested the development of a three-factor model of infant behaviour focused on regulation and motor co-ordination; sensory-affective reactivity; and regulation of distal body senses (auditory and visual). In conclusion, De Santis et al. recommended a more integrative approach based on the findings. For example, for infants who are viewed as “difficult” it would be prudent to have them further supported by occupational therapists who may also identify vestibular (movement) sensitivities. The occupational therapist can then provide timely information for how a caregiver can support the child’s development, and subsequently increase positive parent-child interactions.

Gourley et al.’s (2012) study explored behavioural problems, sensory processing and the impacts of these on the relationship between parent and child. In this study, sensory processing was described as “the process of noticing, organizing, and integrating information from the environment and their body and then processing and responding appropriately” (Greenspan and Wieder, 1997, cited in Gourley et al., 2012, p. 912). Gourley et al. found that the number of children with sensory processing difficulties labeled as oppositional defiant or non-compliant were highly prevalent. They recommended clinicians focus on taking a sensory-friendly approach for children with internalizing and externalizing problem behaviours. For example, supporting families to understand their child’s biological underpinnings that may be contributing to the child’s behaviours. They further suggested adapting the environment to “reduce stressful sensory input” (Gourley et al., 2012, p. 920) and *not* using a behavioral approach focused on ignoring behaviours that were viewed as negative and rewarding compliance.

## **Effects of Toxic Stress from Reactive Temperaments**

Researchers Shonkoff and Bales' (Shonkoff, 2000; Shonkoff & Bales, 2011) discussions based on brain-related research argued that different temperaments will respond to the same stressful situations differently. For children with reactive stress systems this can result in them experiencing stress levels that are toxic. Shonkoff and Bales (2011) argued the long-term effects from on-going toxic stress experiences damages the neural pathways the child needs for later learning involving the pre-frontal cortex. Their research contributed to articles posted through the Centre on the Developing Child (2005, 2010, 2011, 2015). Throughout their articles, the researchers have asserted the necessity for positive reciprocal relationships that are responsive and supportive of all children, but especially for children with difficult emotions. They have also discussed creating environments filled with opportunities for exploration, arguing that these are essential for children to develop skills like impulse control, working memory, focused attention and planning skills (CDC, 2011, 2014, 2015). This is because children do not develop these skills naturally as they mature, but instead children require caregivers to respond in ways that builds these capacities with the child. They further considered the social and political contexts that filter down to impact the child's development as adults interact with the child, including how we view a child's development.

Chapter 2 included a discussion of the theoretical framework guiding this project as well as research supporting these. The studies discussed highlighted the importance of respecting children's behaviours as important indicators for how they are learning about their worlds. For children with reactive temperaments, the literature reviewed also discussed the necessity to respond to children with respect and understanding to reflect to the child how they can manage

their own emotional states, and to limit the toxic effects for children who tend to have reactive responses. In the next chapter, I outline how I connect these theories and research to practice.

### **CHAPTER THREE: CONNECTIONS TO PRACTICE**

In this chapter I discuss connections to practice within different vignettes. These are examples of my practice focused on children's pre-verbal and non-verbal communication and what their voice communicated to me about their worlds. I connect how the literature I explored supported me to recognize children's pre-verbal language as being a valid form of communication and how my interactions with children may have informed their voice. I further discuss how my practice choices align with the research reviewed acknowledging the child's temperament and how they sense their worlds. I also describe how I plan to improve children's future care in the programs where I can involve what I learned throughout my Masters' program.

The following vignettes represent case scenarios where I only describe one child at a time and the choices made. In my current classroom, I do not only focus on one child. I always balance how all the children are making sense of their worlds, their style of exploring their world, and how they communicate this back to me through their behaviours and explorations. I do this by always adapting the environment aware of each child's unique styles. I have also summarized my reflections. I do not discuss the process of how I took many observations, and the many trials and errors occurring over the period of the year, as I tried different hypotheses to support the child to be successful in the classroom with their peers. In the following vignettes, children's names are changed to protect their confidentiality.

#### **Vignette One**

Liam was three years old when I first met him. During preschool class, Liam often focused on using very large gross motor movements. For example, beside the sandbox we had a children's wading pool filled with water to use in the sandbox. Liam loved to run and jump into the water and then jump up and down making all the water splash out of the pool. Liam would



regularly bump the other children with his large gross motor movements. At the beginning of the year, a few parents approached me and told me how Liam was very aggressive, and how he had hurt their children during play. As the year progressed, the children would often refer to Liam as “the monster,” and they would run away from him when he would try to join into their play. Often if a child would get hurt, they would exclaim that Liam did it even if Liam was on the other side of the room. As I became more familiar with Liam, I wondered how we were co-constructing with him his sense of himself as he often experienced others responding to him with fear and frustration. In reflecting about this situation, I connected with Bahktinian theory that draws our attention to the dialogical nature of all behaviour in view of others and how this informs the individual’s voice. I also resonated with Johansson’s (2012) research findings that demonstrated how the observers’ interpretation of the child’s behaviour co-creates with the child their sense of themselves.

With time, and based on my observations of Liam, I questioned if Liam had a low pain sensory threshold. Drawing from Dunn’s, (2001) research, Liam appeared to not respond to pain as easily as his peers. One day, a peer bit him, and before I could get to them I observed Liam not responding to his peers’ teeth on his arm. It was not until I observed his peer start to shake his head and clench down harder with his jaw that Liam responded to the pain. This made me *wonder*, “Is this why Liam did not understand when the children said they hurt him? Maybe he could not register the impact of the pain like them?” After being bitten, he asked me why his friend bit him, and he stated, “I would never do that to someone!” This again made me wonder how Liam was understanding his love of movement in relation to how his peers responded to him because in this statement he clearly indicated, “I never want to hurt someone.” Liam’s love of movement may also have been an indication from a sensory processing perspective that he

was seeking out sensory experiences (Dunn, 2001). By physically moving, this may have helped him to learn about his world, how he can move his body, and how he can control his environment. From an infant's and toddler perspective, discovering how to control the world is a primary goal for children, echoing Gonzalez-Mena and Eyer's (2012) reflections.

One day while Liam was playing in the inside sensory sandbox, I could hear him speaking to himself. As he played with two figurine people in the sand he stated, "What is wrong with you? Why can you not control your body?" I recognized this as possibly demonstrating his egocentric speech as described by Vygotsky (1978), and this statement concerned me. I wondered to myself, "Why are we always dictating how Liam explores his environment? Why can I not adapt the environment to acknowledge how Liam naturally explores his world, while supporting everyone else to also make choices regarding where they are in proximity to Liam?" Instead of focusing on my goal for supporting Liam to be in control of his body so his peers would not get hurt, and to focus on building skills of empathy for how he was impacting the other children (which may be indicative in different developmental theories for the skills Liam *should* be working on), I switched my focus to acknowledging how he explores his world and the value in that. For example, one day Liam was hammering his clay with his arm going straight up and down. It appeared out of control, and I worried he may hit another child. I acknowledged to Liam that he appeared very focused on using his whole body to hammer the clay, and I suggested he move away a little from the other children so he could continue to hammer the way he wanted to do it. By doing this, I believe I further impacted his voice, and how he experienced himself in relation to other's responses to him as demonstrated by research discussed within White's (2011) study where the observer's view influenced the child's voice. Furthermore, as demonstrated by Wallerstedt et al. (2011), I focused on reflecting to him

through language a different view of his behaviour to allow him to better understand why he may choose to use a lot of movement during his activities. Subsequently, I believe I was also equipping him with the means with which to later control his own behaviour, as implicated by Vygotsky's (1978) theory, because I was making the unconscious process of hammering for sensory feedback conscious by discussing with him what I observed. Lastly, as suggested by De Santis et al. (2011) and Gourley et al. (2012), I was supporting Liam's behaviour to become more organized, by allowing him learning opportunities to use his whole body in a constructive and meaningful way, and aware of how he may be sensing his world.

### **Vignette Two**

Thomas was four years old when I first met him. He attended a daycare program, and I was hired to be his support worker. Thomas was described by the other educators as being unpredictable, and he often appeared disorganized and dysregulated in his behaviours. For example, Thomas would throw furniture, or start to run around the room very fast. As I observed Thomas over the next few months, I noticed when I tried to control his behaviour he appeared to become more dysregulated. With time, I learned mom had divorced Thomas' dad when he was one. Thomas' dad had poor mental health, and subsequently mom left the relationship. During this time, she returned to school and Thomas' grandmother cared for him. I *wondered* how this impacted his early sense of relationships and his internal sense of control of his environment and his relationships as implicated by Gonzalez-Mena and Eyer (2012). During drop off time, I also regularly observed Thomas start to cry and then start to run around the room and act silly. I *wondered* if Thomas was communicating how he was struggling to regulate his emotional response to mom leaving and if he was also aware that the other children (who were all four) were not responding with the same distress. As indicated by Bakhtin (1981, 1986),

Thomas was aware of how others were viewing him, and as suggested by Gonzalez-Mena and Eyer (2012) he was also driven to be in control of his behaviour. Thus, it seemed to me that my attempts to support Thomas during drop off, was not giving Thomas the tools to manage his own emotions and further inadvertently communicated to him that he was not capable of controlling his own emotions.

After these observations, I arranged to have good-byes occur outside where the younger children played. My rationale was the following: by allowing Thomas to experience his grief around other children who were also distressed when their caregivers left, Thomas could experience himself not as different from his peers, but as experiencing the same emotions. This allowed Thomas the opportunity to manage his emotions before entering the classroom with his older peers. We would then join the class when they were all settled during circle time because the room was more controlled. I predicted this would also be less distressing to Thomas as he also appeared to want to be in control of the environment (Gonzalez-Mena & Eyer, 2012). These changes eliminated Thomas' early morning difficult behaviours.

Problem-solving with his older peers at times was also challenging for Thomas. To support his learning, I placed visuals in different areas of the room. These visuals, taken from Tucker Turtle (Lentini, 2005) resources, show children when they are yelling, screaming or are having a hard time keeping their hands to themselves to, "Stop, tuck into your shell, take a deep breath, and when you are calm find solutions to the problem." I often observed Thomas standing in front of the visuals, repeating the steps out loud repetitively. I believe this demonstrated Vygotsky's (1978) social learning theory, and a child's egocentric speech where they speak out loud to manage their own behaviour. The visual allowed Thomas the opportunity to articulate the steps, and to support him in the process of internalizing the language which with time would

help him to control his own behaviour. I also recognized the importance of opportunities for him to practice these skills (Izard, 2002). While spending time with the younger children, I observed Thomas be a role model for the children. When they were distressed, he would support them. This allowed Thomas to experience himself as competent as he successfully supported the younger children.

### **Vignette Three**

Jake was a four-year-old boy attending my preschool program. Jake was a co-operative child who loved to engage in outdoor activities. Jake was also regularly observed being engaged in co-operative play with his peers, sharing his ideas, and allowing others to enter play with him. Later in the year, Jake's behaviour started to get silly, and he was not safe with himself, the materials or his peers. Jake would smile, his body would start moving quickly, and he would bump over the toys. He would hit or kick at me when I approached him while laughing and smiling. I expressed to Jake that his behaviour was confusing because while I saw him smiling, I also saw him not being safe with himself or others. I would ask Jake if he was feeling angry. Jake would laugh and say, "no". For three months, I continued to reflect to Jake how his behaviour was not safe, and that this was not how I was used to seeing him. During that time, I also arranged to spend one to one time with him to get him, "back in control of his body". For example, "Jake it looks like you are having a hard time being in control of your body. What can we do to help you feel better?" This reflection process aligned with Izard's (2002) strategies where it is essential to treat emotional experience vicariously, and to not respond with efforts to control the child. Because Jake enjoyed time outside, one of our staff members would take him outside and help him to calm his body by going for a walk. This strategy is supported by Gourley et al.'s (2013) discussion on reducing sensory input.

Once Jake appeared calmer, we would take him back inside to pick up the toys he threw. We would pick up all the toys with Jake and acknowledge how he appeared more in control of his body now. This is congruent with Izards' (2002) guidelines for focusing on learning opportunities only when the child is calm and can take in the information. One day, when Jake was again appearing out of control, I approached him. Jake kicked and hit me. I reflected I was confused because he looked angry, but I also see him smiling. I asked Jake if he was angry. He replied, "no". I then asked Jake if he was scared. He stopped moving, his body slumped forward and he replied, "yes." The following day while Jake was driving to school with his dad, he shared with him that he did not like it that dad and mom were arguing a lot. I *imagine* this emotion of fear was driving his energy, but it was occurring separate from his conscious awareness as discussed by Izard (2001). Izard (2001) emphasized how emotions are more complex than what is occurring in the immediate moment. In this instance, I believe Jake's emotions were being driven by his perception of what was occurring at home. Jake, however, did not know how to articulate this, or his emotions were so intense he did not know what to do with them, and this may have subsequently, driven his behaviour. Jake's behaviour however was communicating to us what was occurring for him internally, and it was my job to decipher his communication as described in Bakhtin's (1986) work. As discussed by McEvoy et al. (2004) this behaviour may have appeared difficult to us, but for Jake it was communicating very important information and his behaviour was helping him to manage the emotion. From then on, when Jake was out of control, he could reflect he was feeling scared, and we could support him with those feelings by doing calming activities he enjoyed.

### **Creating a Classroom Environment Focused on Children's Voices**

From the discussed Bahktinian view, I can consider children's behaviours as often being considered alien to adults as their behaviour represents a form of language often not valued and long forgotten. I have articulated the following recommendations, presented below, to support children's developing voice. These recommendations are guided by Izard's (2002) emotion theory and research focused on temperament and sensory processing styles (Chess & Thomas, DeSantis et al., 2011; Dunn, 2001; Gourley et al., 2013; Rothbart & Jones). Vygotsky's (1978) discussion regarding egocentric speech and internalizing speech also guides practice choices I make, together with Rinaldi's (2001a, 2001b, 2004, 2006) pedagogy of listening, where the primary focus is to understand what the child is communicating, and how I make practice decisions from these observations. The research currently supports my belief of reflecting to the child the valuable ways they gather information and make sense of it. I believe I am also co-constructing with the child a stronger sense of self and supporting them to develop a voice that is more aligned with their internal and external experiences rather than a quick judgement of their behaviour. This method of interacting with children also aligns with White's (2016) dialogic pedagogy where relationships are considered as the curriculum to all children's learning.

Reflecting on children with whom I have worked, and focusing on the theoretical framework of this project, the following are suggested recommendations to guide my future practice. As part of my capstone project, I present the discussed ideas and the literature reviewed through a one day workshop for educators and professionals working with pre-verbal and preschool children (see Appendix C), as well as professionals working with children with difficult to understand behaviours. I also provide participants handouts on temperament and sensory processing (see Appendixes A and B) to guide our discussions.

### **Nineteen Recommendations for Classroom Practice**

To support a child's learning, voice, and stress responses, I ...

- 1) create environments allowing for opportunities for pleasure and joy allowing children to experience themselves as competent and capable (Gonzalez-Mena & Eyer, 2012) driven by positive emotions (Izard, 2002);
- 2) create environments allowing the child to explore and express themselves using many different media like paints, clay, drawing materials, building materials, outside nature play with open ended materials, musical instruments and props they can explore freely (Rinaldi, 2001a; Rinaldi, 2001b; Rinaldi, 2004; Rinaldi, 2006). This also encourages me to gather information about the child, what is important to them, and what theories they are creating about their world;
- 3) listen to parent's stories about their child and their child's life experiences. I listen openly to the parents' beliefs and values and take moments to be aware of how their child may be communicating this with their body language and how they play (White, 2011b);
- 4) pay attention to how children explore their environments to gather information for their temperaments (Chess & Thomas, 1986; Rothbart, 2015; Rothbart & Jones, 1998) and sensory processing (Dun, 2001). I am also aware of my own temperament, and how this may or may not fit with the child (Chess & Thomas, 1986);
- 5) pay attention to how children respond to disappointment or when things do not go the way they want them to (Rothbart and Jones, 1998) because this is an indicator of their temperament;
- 6) reflect with the parents observations of their child's temperament, and how their child appears to process sensory information. I also provide parents with information regarding these constructs;



- 7) reflect to the child words that demonstrate respect for their behaviours while still maintaining safety and respect for the environment. For example, if a child hits another child I do not only respond by saying “hands are not for hitting, use your words to ask for the toy,” because I am not acknowledging that the child has used their hands to communicate they want the toy. While children who do not struggle with on-going noticeable emotional reactions may be able to later correct their behaviour on their own, for children who are not able to change their behaviour, this on-going lack of regard for how they communicate makes it less likely we are going to create an environment for the child that honors how they gather information and how they respond. If a child is easily frustrated I focus on what they are communicating to me about themselves; for example, “It looks like you are angry when your hands hit Tommy. I see you really want the toy. Let’s take a break and help your body to feel better when you are frustrated”;
- 8) avoid focusing on teaching new skills or problem-solving when a child is very distressed. Instead, I focus on ways a child can learn to become calm (Izard, 2002);
- 9) offer an activity the child finds pleasurable. I ensure the child does not experience shame for the re-direction (Izard, 2002). I let them know, “You are not in trouble, we are taking a break to help your body to feel better. What can you do to help yourself to feel better?”;
- 10) explore with children what they like to do when they are calm so I have strategies to refer to when they are distressed (Gourley et al., 2013). I suggest this as a strategy for when they are upset and need to take a break because they are having a hard time being in control of difficult emotions. For example, doing a puzzle, reading a book, or going for a walk;
- 11) respect it takes time for children’s behaviour to become organized and for them to start using verbal language and internalized speech to manage their own behaviours (Izard, 2002;

- Vygotsky, 1978). This may take more time for children who are more reactive or for children who remain driven by emotions they are not aware of (Izard, 2002);
- 12) when the child is calm, I take the time to read social stories displaying prosocial ways of sharing (Izard, 2002);
- 13) allow for relaxed and engaged opportunities to discuss emotions with all children (Izard, 2002; Diamond et al., 2007). For example, reading social stories with them allowing for opportunity to discuss difficult emotions, how we manage them, and how we can problem solve issues of sharing and taking turns;
- 14) place visuals around the room reminding children the steps to managing big emotions as preverbal and preschool children are still building their capacity for internal speech and still rely on their visual field (Vygotsky, 1978);
- 15) in addition, I am aware how the above steps are essential for children developing skills like impulse control, working memory, focused attention and planning skills (CDC, 2011, 2014, 2015).
- 16) acknowledge and check in regularly with children who tend to be quiet, reflecting their actions and value in their actions (Izard, 2002);
- 17) create learning stories that captures the child's interests and strengths and reflects to the child an external image of themselves as active learners who possess skills for learning about their worlds (Rinaldi, 2001b);
- 18) use strategies that are individual to each child focused on what they are communicating with their behaviours and sensitive to the child's temperament and sensory needs (Dunn, 2001, Izard, 2002);

19) Finally, while implementing changes into the program, I am also aware of the population of children I work with and how to balance listening to and acknowledging everyone's voice.

**Outline of Workshop: “Caregivers Co-construction of Children’s Voice: Exploring Pre-verbal Communication and Relationships”**

The following is an outline of a presentation and workshop for early childhood educators and for mental health workers working with children who struggle with behaviours that are difficult to understand (see Appendix C).

Workshop Supplies:

- Markers
- Paper for flip chart
- Flip chart
- Post it notes
- Handouts on temperament and sensory processing (Appendix A, B, C)
- Handout for presentation agenda

Schedule summary:

9:00 Arrivals, coffee, sign in for handouts

9:20 Introduce myself:

- Personal background
- Education
- Years of work experience in different areas of education and mental health

9:30 Workshop overview and Activity

This one day workshop includes times to listen and times to interact with colleagues. In the first part of the morning, we will:

- Become familiar with the questions guiding my research focus.
- Become familiar with the definition of voice and dialogism.

9:40 Engage in an activity designed to reflect on what we view as important to children's development.

10:30 15 minute break

10:45 In the second part of the morning we will:

- Be introduced to a pedagogy of listening and dialogic pedagogy.
- Review the theories and research informing this project.

11:15 15 minute self-reflective activity

- After constructs of temperament, sensory processing and the effects of toxic stress are introduced, engage in a self-reflective activity.

1130 Finish research discussion

- Be introduced to recent brain research on the skills children develop while in relationship with others. Watch three five minute videos.

11:45 1 hour lunch break

After one hour break, in the first part of the afternoon we move into groups and focus on vignettes of children with difficult to understand behaviour, or if you believe you have enough information (history of the child, observations of behaviours, dialogue with child) chose a child you work with who has difficult to understand behaviour (while remaining aware of confidentiality).

- Decide the number of people in each group.
- Let group know to choose a group leader who will write down ideas and share ideas when we come back together after break.

- Rely on handouts regarding temperament, sensory processing and emotion theory to guide the conversations.

1:45 15 minute break

- After the break, group leaders take turns sharing with the entire group how they wondered about what the child may be communicating by their behaviour.

3:00 Closing discussion of practice recommendations based on the research

3:15 Thank-you and Good-bye!

In this chapter I focused on practical applications of the theories and research discussed. In chapter 4, the final chapter, I summarize my conclusions and limitations to my capstone project, and outline my recommendations for study and practice.

## **CHAPTER FOUR: CONCLUSIONS**

The literature reviewed and the connections I established within my own practice choices focused on children's behaviours as their voice and described the relevance of recognizing and supporting pre-verbal and preschool children's behaviour. My main question focused on the ways pre-verbal children communicate. My investigations focused on Bakhtinian theory, illustrated how voice can be defined not only as spoken and written language, but also as gestures, or utterances, in proximity of others (Bakhtin, 1981, 1986; White, 2011). Critical perspectives maintain infants' and toddlers' voices are commonly missing from research because non-verbal communication has not typically been demonstrated as being valuable (Johansson, 2011). In reconsidering children's behaviour, and when trying to demonstrate the importance of what is communicated through behaviour, Bakhtin's theory of voice allowed me a vehicle through which I could highlight the complexity of how we interact with others and how these interactions shape our voice. I have further confirmed that these interactions cannot solely be observed and described from a perspective of normative development established by the field of psychology (Johansson, 2011).

My sub-question focused on how others who are in proximity to the child impact the child's voice. Vygotsky (1978) outlined what he believed was a uniquely human developmental progression for how children come to understand language through reciprocal interactions, and how they later use it to guide their own behaviour. Bakhtin's (1981, 1986) writing extended on this theory by further implicating the social and political contexts of an individual, and how these views also interact to inform voice. As demonstrated by the research reviewed in this project, educators are co-constructing with children their voice through dialogical interactions (Johannsson, 2011; White, 2009; White, 2011b), and it is imperative to be aware how

predominately development views created during a particular era can impair a child's sense of themselves (Canella, 1997). The findings from research studies examined in this project focused on supporting children to learn to be in control of their behaviours and reaffirmed the importance of giving words to children's actions (Wallerstedt et al., 2011). The emphasis however is not to tell children to use their words, but to reflect to children with words their actions. I have found that by focusing on describing children's behaviours to them, I am giving them more opportunity to attach meaning to verbal utterances through their lived experiences. As discussed by Izard (2002), children's behaviour serve as a function to influence others and the environment, and these behaviours are often outside of conscious awareness. It also takes time before they become part of our own conscious awareness. From these perspectives, I can consider all behaviour as communicating to me important information about the child, and how it is important to support the child to have the time and space to gain an understanding of their own voice through their behaviours. It is furthermore important because by acknowledging the child's behaviour, the child's voice becomes more connected with their body. For this reason, it is essential to remain in a place of wonder with the child, because we are all complex beings with many factors affecting our understanding of our life experiences, and it is important to include children in their own process of learning to understand themselves.

Izards' (2012) extensive review of literature regarding emotions further highlighted important practice considerations in terms of how I respond to children's emotions. His theory argued a disregard for difficult behaviours influenced by emotions like sadness, anger or fear, can negatively impact the child's later neurological capacity for learning new skills and ways of being. I also focused on evidence for this particularly in research regarding temperament and sensory processing (DeSantis et al., 2011; Gourley et al, 2013; Rothbart, 2015; Rothbart &

Jones, 1998; Tremblay et al, 2004). In my final sub-question, I explored in what ways temperament and sensory processing further influenced children's relationships. I believe the research discussing temperament and sensory processing further demonstrated possible outcomes of not acknowledging how children explore their worlds, and in what ways this can subsequently separate the child from their own voice because we are not giving children the awareness and strategies they can use to manage their own stress (Izard, 2002; Thomas & Chess, 1986). The research I explored indicated how children who are more reactive require adult support for how they manage their stress responses or this may lead to damaging effects to the child's later learning. Research conducted by the Centre on the Developing Child (2005; 2010; 2011) also discussed the detrimental effects of on-going stressful responses resulting in toxic stress which can in turn impair the brain's ability to manage stress. For children with reactive temperaments and who struggle to become organized in their behaviour, findings of the extant research emphasized how essential it is to respond to these children with patience and to focus on supporting the child to gain awareness of how they are feeling and responding to their emotions (CDC, 2005; 2010; 2015). This coincides with the child's development of skills like impulse control, working memory, and managing big emotions in what ways these do not develop in isolation from the environment –or separate from supportive relationships (CDC; 2010; Izard, 2002).

Central to the practice decisions I make, are a pedagogy of listening approach and, at the same time, approaching each child from a place of not knowing, as well as curiosity for how they are sensing and responding to external and internal sensory experiences. My practice decisions are also guided by dialogic pedagogy that further emphasizes the complexity of behaviour, and how behaviour is shaped in relationship to others within specific contexts in time. Remaining



aware of how my views and someone else's view may impact the child's behaviour is also essential within this pedagogical approach.

### **Limitations and Recommendations for Future Study and Practice**

Due to the limited scope of this project, I exclusively focused on the concept of voice with pre-verbal and preschool children in modern Western culture and in what ways voice develops in relationship to caregivers during this time. The literature reviewed regarding temperament pertained only to children who struggle to become organized in their behaviour and who are more reactive to their environments. There was a dearth of research focused on children who may be less reactive and responsive to the world around them.

Current research on infants increasingly demonstrates how infants are developing the skills they need for spoken language by how they process multisensory information to communicate (Liszkowski, 2014); therefore, I recommend future research investigating how this develops in relationship to caregivers' responses to the child from birth. I further advise research exploring in what ways this varies between cultures. Muir and Bohr's (2014) discussion focused on contemporary Australian aboriginal communities and research exploring caregiving traditions concentrated on competence and self-expression with children. In addition, I recommend exploring research regarding children who are less responsive and who appear not responsive to situations of stress, as these children may often be overlooked as being "good" children. With voice being dialogical in nature, I am left wondering if for a child who tends to appear quiet and easy going, how they may not invite the reciprocal interactions with an adult. Furthermore, can this subsequently not allow the child opportunity to express ideas about the world or themselves leaving them with an absence of opportunities for experiencing their voice?

Regarding recommendations for practice, I suggest that more educators in early learning

programs become skilled at supporting children from a temperament and sensory processing perspective, as well as ensuring they invite parents to share stories of their child's life experiences. This would also require educators becoming familiar with a pedagogical approach focused on how the child is making meaning of themselves and of the world around them, instead of an approach focused on children reaching their milestones within a narrower timeframe (Farquhar & White, 2013). It also would be essential to support educators to recognize the child's capacity and drive to be an active participant in their learning and as an individual who knows and demonstrates what is important to them (Rinaldi, 2004) so that educators can fully honor and respect the voices of children. I further recommend opportunities for early childhood educators to discuss different views of the children in their care and how they are imagining what may be influencing the child's developing voice (Hewitt, 2001). These conversations would enrich the complexity of how educators, including myself, view children and challenge ourselves to keep imagining how the child is learning about their world. At the same time, we co-construct their voice with them through reciprocal interactions that are focused on translating sensations and actions to words.

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## **APPENDICES**

## APPENDIX A

### Temperament Continuum

#### HANDOUT 23



Place the initials of each of the children in your care on the continuum for each trait based on your observations and discussions with the child's family. Then, write your initials where you feel you fall on each trait in the continuum. Use this tool to analyze where your temperament is similar and different to the children you care for. Then, knowing that it is the adult who must adjust to make the "fit" good, use the suggestions above to create care strategies that provide the best possible experience for each child.

#### Activity Level:

##### Very Active

wiggle and squirm, difficulty sitting still

##### Not Active

sit back quietly, prefer quiet sedentary activities

#### Distractibility:

##### Very Distractible

Difficulty concentrating

Difficulty paying attention when engaged in an activity

Easily distracted by sounds or sights during activities

##### Not Distractible

High degree of concentration

Pays attention when engaged in an activity

Not easily distracted by sounds or sights during activities

#### Intensity:

##### Very Intense

Intense positive and negative emotions

Strong reactions

##### Not Intense

Muted emotional reactions

#### Regularity:

##### Very Regular

Predictable appetite, sleep patterns, elimination

##### Not Regular

Unpredictable appetite, sleep patterns, elimination

#### Sensory Threshold:

##### High Threshold

Not sensitive to physical stimuli including sounds, tastes, touch, temperature changes

Falls asleep anywhere, tries new foods, wears new clothing easily

##### Low Threshold

Sensitive to physical stimuli including sounds, tastes, touch, temperature changes

Picky eater, difficulty sleeping in strange crib/bed

#### Approach/Withdrawal:

##### Tendency to Approach

Eagerly approaches new situations or people

##### Tendency to Withdraw

Hesitant and resistant when faced with new situations, people, or things.

#### Adaptability:

##### Very Adaptable

Transitions easily to new activities and situations

##### Difficulty Adapting

Has difficulty transitioning to new activities or situations

#### Persistence:

##### Persistent

Continues with a task or activity in the face of obstacles

Doesn't become frustrated easily

##### Easily Frustrated

Moves on to a new task or activity when

faced with obstacles. Gets frustrated easily

#### Mood:

##### Positive Mood

Reacts to the world in a positive way, generally cheerful

##### Serious Mood

Reacts to situations negatively, mood is generally serious

<sup>1</sup> ZERO TO THREE. Retrieved from worldwideweb [http://www.zerotothree.org/site/PageServer?pagename=key\\_temp](http://www.zerotothree.org/site/PageServer?pagename=key_temp) June 11, 2009

<sup>2</sup> Dimensions of temperament (found in several places and merged/adapted).

<sup>3</sup> WestEd. (1995). The Program for Infant Toddler Caregivers' (PITC) Trainers Manual, module 1: Social-emotional growth and socialization (p. 21). Sacramento, CA: California Department of Education.

<sup>4</sup> Thomas, Chess, Birch, Hertzog, & Korn, 1963.

## APPENDIX B

# what you NEED TO KNOW about...

## Children and Youth with Sensory Processing Issues Information for Parents and Caregivers



### Sensitive Stan

Stan is a 9-year-old boy who seems to get upset by everything. Every day is a struggle for Stan and his parents. Mealtimes are a struggle because he is a picky eater. Getting dressed is frustrating and takes a long time because he can't tolerate the seams on his clothes. So when his parents find clothes he does like, they buy several of the same item. At school, he has trouble paying attention and sitting still in class. If other kids get into his personal space, or accidentally touch him, he gets either angry or tearful. At bedtime, his parents are exhausted from the nightly battle of getting him to brush his teeth and wash his face. Stan has seen many health professionals already, but nothing has helped. So what's really going on with Stan? Is he just trying to be difficult? Is it his parent's fault? Or is it something else?

### What is sensory processing?

We are always taking in information from our eyes, ears, body and skin. This is called 'sensory input'. Nerves throughout our bodies take in the information, and our brains process it (tell us what it means).

As you are reading this, you are processing and making sense of sensory input:

- **Visual or vision input:** The words you are reading on this page
- **Auditory or sound input:** The background noises you're trying to ignore while reading
- **Tactile or touch input:** Feeling the paper you're holding, the seat you are on and the clothes you're wearing
- **Olfactory (smell) input :** The smell of dinner cooking or the perfume you're wearing
- **Taste input:** The mint gum you're chewing
- **Movement input:** This has 2 parts: the sense of our position in space (proprioception), and the feeling of gravity (vestibular input). As you're reading, this input would be the feeling of leaning on your arms or tapping your foot.

**Hyper-sensitive (hyper-sensitivity):**  
Being more sensitive than most other people.

**Motor coordination:** Many muscles working well together to carry out a task (like riding a bike).

**Nervous system:** Includes the brain, spinal cord and nerves. It controls our senses, movement and thinking.

**Self regulation:** Keeping the right level of alertness for the task at hand.

**Sensory input or stimulation:**  
Information we take in through our senses.

Our senses all work together to allow us to carry on our daily activities. When we step into the bathtub, we use our movement, tactile, and visual senses. This becomes so automatic, that we don't even think about it. When we are able to process sensory input well, our nerves and brain control this input without effort. We feel 'just right', and we are calm, alert, focused and ready to learn, work or play.

401 Smyth Rd, Ottawa, Ontario, Canada



613-737-7600 • <http://www.cheo.on.ca>

P4926E 18/11/2009

Image source: CHEO

[http://www.cheo.on.ca/uploads/Sensory%20Processing/17966\\_Sensory\\_Processing\\_ENG.pdf](http://www.cheo.on.ca/uploads/Sensory%20Processing/17966_Sensory_Processing_ENG.pdf)

## APPENDIX C



Slide 1

### Introduce myself

- Personal background
- Education
- Years of work experience in different areas of education and mental health

A presentation slide titled "MORNING AGENDA" with a light green background and a decorative leaf pattern on the left. It contains a table with time slots and activities.

MORNING AGENDA	
9:00 till 9:20	• Arrivals, coffee, sign in for handouts
9:20 till 9:30	• Personal introduction
9:30 till 9:40	• Workshop Overview
9:40 till 10:05	• Activity
10:05 till 10:30	• Sharing discussions
10:30 till 10:45	• Break
10:45 till 11: 45	• Review of research

Slide 2

### Workshop overview:

This one day workshop includes times to listen and times to interact with colleagues. In the first part of the morning, we will:

- become familiar with the questions guiding this project,
- Become familiar with the definition of voice and dialogism.

9:40 Engage in an activity designed to reflect on what we view as important to children's development.

10:30 15 minute break.

10:45 In the second part of the morning we will:

- Be introduced to a pedagogy of listening and dialogic pedagogy.
- Review the theories and research informing this project.
- Be introduced to recent brain research on the skills children develop while in relationship with others.
- Engage in self-reflective activity focused on temperament and sensory processing.
- Watch three videos each five minutes long.

11:45: 1 hour lunch break.

AFTERNOON AGENDA	
11:45 till 12:45	• Lunch break
12:45 till 1:45	• Group Discussions
1:45 till 2:00	• Break
2:00 till 3:00	• Sharing Group Discussions
3:00 till 3:15	• Closing and thank you

### Slide 3

After one hour break, in the first part of the afternoon we move into groups and focus on vignettes of children with difficult to understand behaviour.

- Decide the number of people in each group.
- Let group know to choose a group leader who will write down ideas and share ideas when we come back together after break.
- Rely on handouts regarding temperament, sensory processing and emotion theory to guide the conversations.

At 1:45: 15 minute break.

After the break, group leaders take turns sharing with the entire group how they wondered about what the child may be communicating by their behaviour.

## Co-Constructing With Children Their Voice

---

Constructing With Children Their Voice

- Approaching children from a place of wonder
- At the end of the day, what did I do to reflect back to this child who they may be, and how they are valued for how they learn?

### Slide 4

At the end of the day, I would like us to take time to discuss how we can observe children's behaviour from a different perspective than from a perspective of modern developmental research which dictates what a child "should" be doing and by when. Throughout my review of the literature, I focus on theory as theory being essential for guiding our practice; however, it should never over ride what the child is telling us is important to them by their behaviours. I believe if we do so, we run the risk of not involving children in their own care and we do not take the time to wonder what their behaviour is telling us about how they sense and interpret their worlds. Subsequently, we also run the risk of silencing children's voices. The following slide will discuss how voice is defined throughout my project and how this relates to dialogism.

## What is Voice?

- **Bakhtin (1986) asserted voice is forever changing as we move through time and space, and all interactions with others and the environment continues to inform voice.**
- **Bakhtin (1981; 1986) further discussed voice as being presented to others through spoken and written language, as well as any sound, gesture, or movement that occur with others present (White, 2011).**

### Slide 5

During my studies at UBC, I found Bakhtin's theories to be especially pertinent to my examination of how a child develops their voice and how they communicate ideas about themselves. There are several different definitions for voice, but my focus is on Bakhtin's.

From Bakhtin's perspective voice starts to develop from the moment we are born by how others respond to us and how we gain an understanding of our self based on our experiences. (read slide)

## Dialogism

- **Dialogism refers to the reciprocal social interactions that include verbal and non-verbal communication (White, 2011).**
- **"The term dialogism can be loosely described as a way of exploring the social event of 'voice' (or rather voices, plural) as learning" (White, 2016).**
- **From this perspective, all behaviour is communication.**

### Slide 6

Bakhtin further discussed this process as dialogical in nature. (read slide)

## Discussion Activity

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- The following slide guides the discussion activity to follow



Image source:  
<http://www.weteachwelearn.org/tag/discussion/>

Slide 7

## How do Pre-Verbal Children Communicate?

---

- In what ways do children's pre-verbal language communicate their understanding of the world before a child can articulate these verbally?
- In what ways do interactions with staff in early childhood settings and primary caregivers impact the child's voice?
- In what ways do children's temperaments and sensory processing relate to these interactions?

Slide 8

The questions which guided my capstone project, and which I will focus on throughout this workshop are: (read slide)

## What is Your View of How Children Communicate, and How Do We Support This?



Image source:  
<http://www.sharonhuey.com/services/play-therapy/>

### Slide 9

The purpose of this activity is to engage in an activity designed to reflect on what we view as important to children's development while asserting there is no right or wrong, just different perspectives.

- Break into groups of three
- Choose one group leader to write down thoughts discussed
- Take five minutes to introduce yourselves to each other in your group
- Take about 25 minutes to write down some of your beliefs of what is important for early childhood care and how we support children's communication. What is important for them to learn regarding communication? How do we support their learning? Also, can you recall a time where you felt you might have started to lose your voice?
- This entire activity takes approximately 45 minutes to an hour as discussed in agenda. I will walk around to brainstorm with groups if they need help.

## Centre on the Developing Child

**“As young children develop, their early emotional experiences literally become embedded in the architecture of their brains”**

Centre on the Developing Child  
(2004).

### Slide 10

Fortunately, we are also at a time during research where more extensive brain research can guide what previously could only be described as behaviours with little understanding of long term implications for the methods we use with children. The National Scientific Council on the Developing Child (2011, 2010, 2005, 2015) consists of many top researchers in the field of brain development. Their research has focused on communicating to others how the environment impacts brain development. (read slide). We will explore theory that suggests how this occurs after our 15-minute break, and how this contributes to the child's voice.



Slide 11

**BREAK**

---

15 minute break

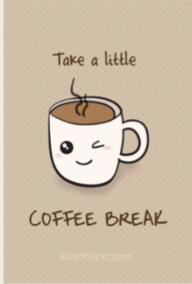


Image source: <http://www.lovethepic.com/image/142444/coffee-break>

Slide 12

**Learning to Have Control  
in the World**

- It is recognized that “learning to predict what effect they have on the world is a primary accomplishment of infants in early life.” (Gonzalez-Mena & Eyer, 2009, p.21).
- Infant and toddler care recognizes that the environment is the teacher, and uses relationships to provide guidance and safety while the child explores their surroundings and learns about their social responsibilities in relation to the world around them.

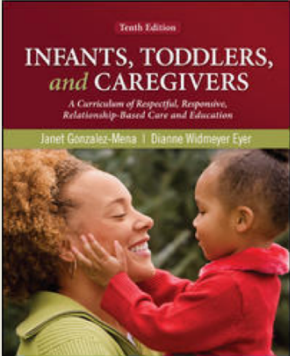


Image source: <https://www.amazon.ca/Infants-Toddlers-Caregivers-Curriculum-Relationship-Based/dp/0078024358>

\*\*I will re-iterate some of what was discussed and then ask participants to turn their perspectives into imagining the child's view.

For example, possible dialogue – I heard a lot of discussion on supporting children to reach their developmental milestones which is one of the greatest roles we have as educators/mental health support works. This requires an awareness of the theories that exist regarding when these milestones are reached, and is part of our on-going practice as professionals. For this workshop however, I want us to take some time to set aside those views, not forget them, but just set them aside to imagine what the child's perspective may be for how they are experiencing their world (read slide)

## Through the Eyes of a Child: An Early Learning Perspective

- Infants, toddlers and preschoolers learn about the world around them by the interactions they have with different materials and people.
- Infants, toddlers and preschoolers are always testing different theories; ideas they have about how the world around them operates (Gonzalez-Mena & Eyer, 2012).

*What can I do with this?*

*How do I use my body to move this?*

*What does this feel like?*

*How will this person respond to me?*



Image with consent obtained (Hittos, 2017).

Slide 13

(read slide)

## A Pedagogy of Relationships and Listening

“As an American educator, I cannot help but be struck by certain paradoxes. In America we pride ourselves on being focused on children, and yet we do not pay sufficient attention to what they are actually expressing” (Gardner, as cited in Rinaldi, 2006, p. 2).

Slide 14

An approach that aligns with staying focused on the view of the child is Carlina Rinaldi's (2006) 'pedagogy of listening'. Carlina Rinaldi, the past pedagogical director of the early childhood schools in Reggio Emilia, discussed this approach as being open to imagining a different way of being and imagining how the child is gaining their sense of being within their world. A quote by Howard Gardner within Rinaldi's book reads (read slide). Rinaldi (2004) discussed valuing the child's capacity to making meaning in their worlds and demonstrated how children are creating theories about their worlds which is expressed through their day to day explorations. Rinaldi (2006) argued it is essential to approach the child from a perspective of not knowing and instead to 'listen' through observations to their ideas, theories and questions and to treat them "seriously and with respect" (p. 12). Rinaldi (2006) argued by taking the time to listen and challenge our own views, we are also challenging the whole concept of pedagogy and the methods we use when working with children. And we are also supporting the child to develop their own voice.

- “In a pedagogy of listening, Reggio’s municipal schools have pursued the aspirations of their founders, whose experience of fascism had ‘taught them that people who conformed and obeyed were dangerous’ (Dahlberg et al., 1999, p. 12 as cited in Rinaldi, 2006, p. 12).
- Instead, the focus of Reggio Emilia schools were, and remain to be, focused on contributing to children who can think and act for themselves” (Dahlberg et al., 1999, p. 12 as cited in Rinaldi, 2006, p. 12).

#### Slide 15

As I discussed, this topic is important to me because I believe it is essential to contribute to a community of learners who understand themselves and believe they have control in their worlds. I think the schools in Reggio Emilia are an exemplary method to consider not only because of the specific tools they use with children, such as art as a media for communication, but because it was built from a desire to create human beings that are able to think for themselves. Loris Malaguzzi, the initial founder of this school, set out after World War Two to create a school that would not create a community of citizens that would blindly follow the ideals of someone else which is what occurred as Hitler led the Second World War. In my practice with children, this is essential especially in mental health. From my experiences working in mental health, children and youth who do not understand their emotions, desires, and beliefs, struggle to make change when their actions are not working within the contexts of their schools, families and relationships. (read slide)

## Dialogic Pedagogy

- **White (2016) focused on the “spoken and unspoken dialogue that takes place between those involved” (p. 3) and how this continues to inform voice.**

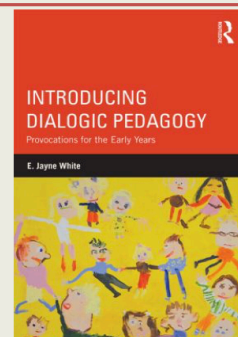


Image source:  
<https://dpj.pitt.edu/ojs/index.php/dpj1/booksForReview>

#### Slide 16

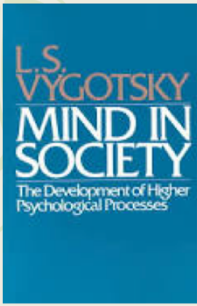
The other pedagogy informing my project is dialogic pedagogy. Jane White (2011, 2016) has conducted extensive research with infants and toddlers regarding how they develop in relationship to others interacting with the child, and how this informs the child’s voice. White (2016) emphasized the social nature of all learning. White defined “The emphasis in dialogic pedagogy is *how all children’s learning* occurs in relationship to others. White (2016) discussed how Bakhtin implicated unspoken and spoken dialogue occurring directly or indirectly as creating meaning, therefore, “dialogic pedagogy emphasises (sic) learning dialogues that take place in social settings” (p. 4).



## Slide 17

Canella's (1997) book *Deconstructing Early Childhood Education* outlined how children and women's voices have historically been silenced. Canella (1997) demonstrated throughout her text the role of influential theorists and philosophers in how the Western world views children and their development. For example, Dutch scholar Hugo Grotius, in 1625, "proposed the existence of natural law, universal rules of nature that were independent of Christian theology" (Canella, 1997, p. 21). This proposal led to a belief in a scientific view of the world that is still prevalent in Euro-American dominant discourse today. This is demonstrated by the current demand to show evidence of learning outcomes in education by testing knowledge thorough written or oral standardized tests. Canella (1997) further asserted that early educators may rely only on developmental theories for the milestones a child must achieve by a certain age, and look to supporting the child to reach these within the context of their family and early learning environments. To be informed by our practice it is essential to be aware of what beliefs, values and ideologies guide our work with children and to be aware how these were constructed during an era with specific political influences for what is considered as important.

## Socio-cultural Perspective Vygotsky



- Infants first learn to read the signs of non-verbal communication before they start to understand that speech are signs with meaning (Vygotsky, 1978).

Image source: [https://books.google.ca/books/about/Mind\\_in\\_Society.html?id=RxiiUefze\\_oC](https://books.google.ca/books/about/Mind_in_Society.html?id=RxiiUefze_oC)

## Slide 18

Lev Vygotsky also offered important insights about relationships from a social and cultural perspective focused on "thought and language and how action is mediated by cultural tools and symbols" (Dahlberg & Moss, 2006, p. 5). Vygotsky implicated non-verbal communication as the first "signs" that children recognize as being laden with meaning. Theorists have further discussed the relevance of Vygotsky's account of higher psychological functions, such as managing and monitoring our own behaviours through internalized speech. Vygotsky asserted how this is a "product of *social interaction* and not merely a result of maturation or a construction through the child's experience alone" (Whitebread & Basilio, 2012, p. 25) as suggested by earlier theories of Piaget. Again, this is not to say Piaget's theories do not offer us important insight into how the child may be learning; however, it is also important to be aware that each theory has limitations.

## Bakhtinian Theory



Image source:  
<https://utpress.utexas.edu/books/bakdia>

### Slide 19

Bakhtin (1981, 1986) also implicated how social and political forces filter down to impact the individual's voice, and how this is transmitted by how we interact with each other. Bakhtin's work has been used to guide research from a critical perspective, such as the views described by Canella (1997).

## Research with Infants and Toddlers



Image source: <https://www.amazon.ca/Educational-Research-Our-Youngest-Toddlers/dp/9400723938>

### Slide 20

Johansson and White (2011) in their publication *Educational Research with Our Youngest: Voices of Infants and Toddlers*, included various research articles utilizing mixed methods for researching infant and toddlers' voice. In one of the studies, White (2011) focused on footage and dialogue of an eighteen-month old girl's interactions with different dolls. White (2011) focused on the utterances of the child as demonstrating their voice. Dialogic analysis was conducted by coding video footage and conversations regarding footage. Her findings revealed the toddler as communicating her experiences by how she used the doll to communicate. The on-going interactions observed over a period revealed the toddler as an active participant in creating meaning about herself. This was further influenced by the subjectivities of each person observing the child and their responses to her. Current research in this area is rapidly expanding to support these ideas further.



## How We Respond to Behaviours Co-Constructs with the Child Their Voice



Image source: <https://www.parentcircle.com/clipbook/good-cop-bad-cop-parenting/>



Image source: <https://www.parentcircle.com/clipbook/good-cop-bad-cop-parenting/>

### Slide 21

Based on the ideas of Bakhtin and Vygotsky, I believe it is essential to be aware that how we respond to a child's behaviours co-constructs with the child their voice and their sense of self. Again, voice is not just spoken words but also gestures and utterances in view of others. The process of what we communicate to a child about their behaviour, will in turn generate more behaviours from the child. If we do not offer the child information that accurately reflects what their behaviours are communicating from their perspective, then we do not support the child to become more organized in their behaviour. Research regarding emotions and brain development further offers us important factors to consider.

## Izard's (2012) Emotion Theory Recommended Practice Guidelines:

- **Non-verbal behaviour is the primary means for communicating with others. Brain development has to proceed through different neural regions, impacted by the environment, in order for the child's behaviour to become organized (Izard, 2002).**
- **Children who are more reactive and impulsive require focused strategies for supporting their emotional responses.**

### Slide 22

Izards' (2012) extensive review of literature regarding emotions highlighted important practice considerations for how we respond to children's emotions. How a child becomes more organized in their behaviour, is also impacted by how they process information from their environment.

These included: (read slide)

### **Izard's (2012) Emotion Theory Guidelines (continued):**

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- **Socio-emotional deprivation can occur when adults do not support the child to experience stress and social interactions without on-going stressful emotional responses. This can subsequently impact the chemoarchitecture of the brain and how children respond to stress and relationships.**

Slide 23

### **Izard's (2012) Emotion Theory Guidelines(continued):**

- **Emotions are more complex than what is occurring in the immediate moment.**
- **Emotions are generated by “multiple and dynamically interrelated motivational conditions” (p. 806) such as the child’s disposition, temperament, attributional style and perception of their life experiences.**

Slide 24

### **Izard's (2012) Emotion Theory : Guidelines (continued)**

- **Focus on social-emotional learning occurring within pleasurable experiences, such as social stories or dramatic play.**
- **Focus on the arousal of negative emotion being vicarious (how it impacts the child) instead of discipline that is focused on power over the child.**
- **Support social learning by first re-directing emotions like anger by doing a benign activity in order to support the child to self-regulate.**

Slide 25

## **Temperament**

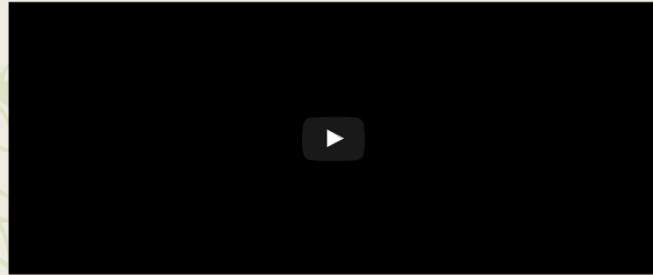
- **Is the individual differences in responses to emotional, physical, attentional, reactive and self-regulatory processes. These are theorized to be constitutionally based and relatively stable over time (Rothbart, 2015, p. 180).**
- **Rothbart and Jones (1998) defined temperament as “the relative strength of children’s emotional reactions and related behaviours as well as their capacities for self-regulation” (p. 479-480).**

Slide 26

As discussed by Izard (2002) emotions are more complex than what is occurring in the immediate moment. Emotions are generated by “multiple and dynamically interrelated motivational conditions” (p. 806) such as the child’s disposition, temperament, attributional style and perception of their life experiences. Children will respond to the same stressful situations differently. A child’s temperament, attributional style and how they perceive their life experiences all generate emotions of different intensity (Izard, 2002; Shonkoff & Bales).



## Temperament



Slide 27

Watch ten minute video: <https://www.youtube.com/watch?v=P2SxoBj3daM>

## Reactivity

- **“The term ‘reactivity’ refers to the latency, rise time, intensity, and duration of responsiveness to stimulation” (Rothbart, 2015, p. 180).**
- **The National Scientific Council on the Developing Child (2011, 2014, 2015) and Shonkoff (2000) and Shonkoff and Bales (2011) discussed how different children respond to the same events with different modulation of emotional responses.**

Slide 28

For example, if a child hits another child and we only respond by saying hands are not for hitting, and for children becoming verbal, use your words to ask for the toy, we are not acknowledging that the child has used their hands to communicate they want the toy. While children who do not struggle with on-going big emotional reactions may be able to later correct their behaviour on their own, for children who are not able to change their behaviour, this on-going lack of regard for how they communicate makes it less likely we are going to create an environment for the child that honors how they gather information and how they respond to information. Maybe this child is easily frustrated and so instead we need to focus on that. For example, it looks like you are mad when your hands hit Tommy. I see you really want the toy. Let’s take a break and help your body to feel better when you are feeling mad. This does not mean we leave the child alone. This means we sit with them and offer them emotional support. Then when the child is calm, take the time to read social stories that offer prosocial ways of sharing. Also, thinking about other tools that may help the child to manage their energy when they are frustrated. For example, for children who bite, acknowledging their emotions and offering them a chew material when they start to appear dysregulated, may help to dissipate that energy and desire to bite. This also means, if we have a child who is biting, we do not expect we can leave them alone to manage this energy without our support. This latter approach builds with the child their spoken voice as well as their internal voice and sense of themselves as children whose emotions matter and that we are there to provide them with feedback about ways they can resolve issues.

## Sensory Processing

- **Dunn (2001) discussed four patterns of sensory processing and proposed these may contribute to temperament. The patterns are: low registration, sensory seeking, sensory avoidant and sensory sensitivity. Sensory processing is complex and varies for everyone. “People do not experience sensory events of daily life in a unitary manner” (Dunn, 2001, p. 612).**
- **Greenspan and Wieder (1997) described sensory processing as “the process of noticing, organizing, and integrating information from the environment and their body and then processing and responding appropriately” (as cited in Gourley et al., 2012).**

Slide 29

I also think it is important to consider how children process information through their senses also informs their behaviour. (read slide).

## Toxic Stress

- **Researchers Shonkoff (2000) and Shonkoff and Bales (2011) in their discussions on brain research demonstrated how different temperaments respond to the same stressful situations differently, and how this implicates a child’s experience of toxic stress.**
- **Toxic stress is the result of on-going activation of stress levels that are damaging to the neural circuitry of the brain and can have long term implications for sense of self, and later learning (NSCDC, 2011, 2015).**

Slide 30

Children who are more reactive and have less supportive relationships, or do not have a “goodness of fit” as discussed in the temperament video, may experience more stress and struggle to organize their behaviour. Chess and Thomas’s (1986) book *Temperament in Clinical Practice*, discussed evaluating temperament prior to determining if a child’s behaviour is problematic. Analysis of children’s behaviour included observing how the child naturally explored their environment using a temperament scale, as well as interviews with parents for how they respond to or adapt the environment for their child’s learning needs. Chess and Thomas (1986) demonstrated how behaviours that were initially viewed as maladaptive and problematic were reasonable approaches when awareness was drawn to the child’s temperament, how they explored their environments and managed stress. (read slide)

## Shonkoff and Bales

- **Children's ability for impulse control, working memory, problem-solving and self-regulation do not develop with only maturation. This requires consistent and predictable interactions with the environment and others, as well as a balanced biological capacity for learning (for example, not having cognitive developmental impairments).**

### Slide 31

(read slide)

This is further mediated by temperament and the amount of exposure to something a child needs to learn it, and the opportunity and capacity to keep re-working that understanding of it. Development in the different areas of executive functioning skills develop at different times and rates. Impairment in one area may not necessarily impair other areas but will still result in challenges for the individual.

### Slide 32

## Activity

- The following slide guides an activity focused on your own temperament and sensory processing.



Image source:  
<https://clipartfox.com/download/0d0b5ed988a7853f6ca161167299b3adade7e5b0.html>

### Slide 32

## Self-Reflection

Image source: CSFSEL  
[http://csefel.vanderbilt.edu/briefs/wwb\\_23.pdf](http://csefel.vanderbilt.edu/briefs/wwb_23.pdf)

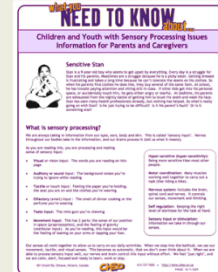


Image source: CHEO  
[http://www.cheo.on.ca/uploads/Sensory%20Processing/17966\\_Sensory\\_Processing\\_ENG.pdf](http://www.cheo.on.ca/uploads/Sensory%20Processing/17966_Sensory_Processing_ENG.pdf)

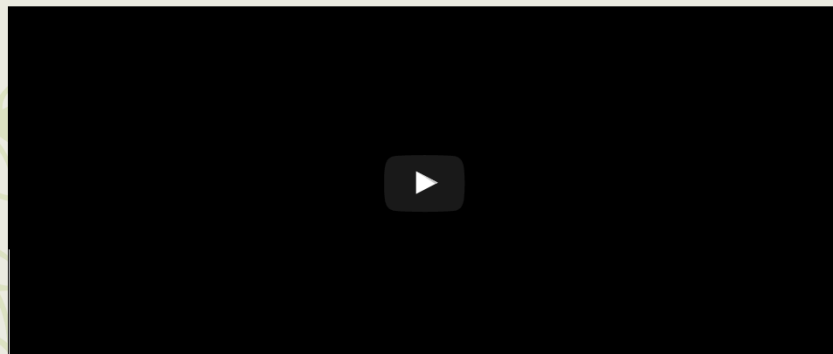
### Slide 33

Refer to the handouts on temperament and sensory processing styles.

Reflect how these constructs relate to you for 10 minutes)

Would anyone like to share anything interesting they learned or recalled already knowing?  
 (10 minutes for self-reflection. 5 minutes for sharing)

## Architecture of the Brain



### Slide 34

Watch three five minute videos:

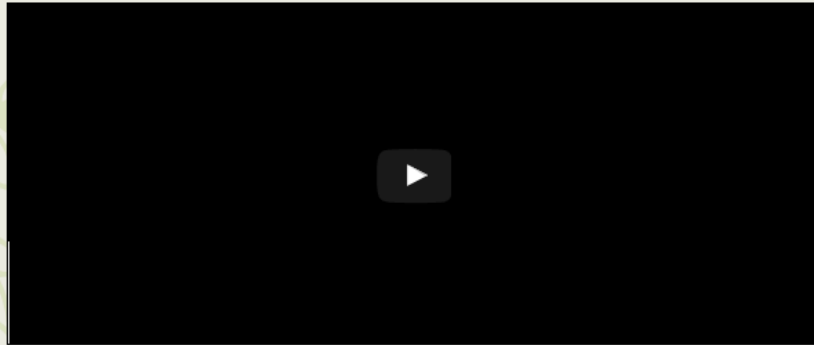
Child Development Core Story, Part 1: Brain Architecture

Child Development Core Story, Part 2: Serve and Return

Child Development Core Story, Part 3: Stress

: <https://www.youtube.com/watch?v=SpqLzFew9bs>

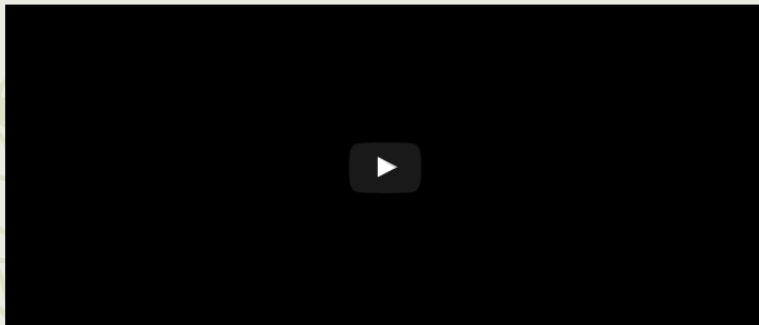
## Relationships: Serve and Return



Slide 35

: [https://www.youtube.com/watch?v=u0\\_Y7jSGnp8](https://www.youtube.com/watch?v=u0_Y7jSGnp8)

## Toxic Stress



Slide 36

And <https://www.youtube.com/watch?v=kivv2BJhzbA>

## LUNCH BREAK

One hour lunch break

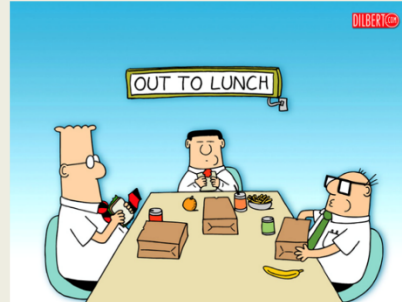


Image source: <http://tx.english-ch.com/teacher/len/level-b/lunch-breaks/>

Slide 37

## AFTERNOON DISCUSSIONS

The following slide guides the afternoon discussion activity

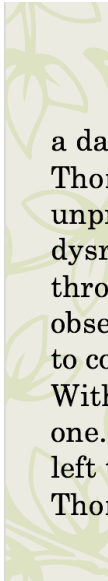


Image source: <http://www.weteachwelearn.org/tag/discussion/>

Slide 38

After one hour break, in the first part of the afternoon we move into groups and focus on vignettes of children with difficult to understand behaviour.

- Decide the number of people in each group.
- Let group know to choose a group leader who will write down ideas and share ideas when we come back together after break.
- Rely on handouts regarding temperament, sensory processing and emotion theory to guide the conversations.



Thomas was four years old when I first met him. He attended a daycare program, and I was hired to be his support worker. Thomas was described by the other educators as being unpredictable, and he often appeared disorganized and dysregulated in his behaviours. For example, Thomas would throw furniture, or start to run around the room very fast. As I observed Thomas over the next few months, I noticed when I tried to control his behaviour he appeared to become more dysregulated. With time, I learned mom had divorced Thomas' dad when he was one. Thomas' dad had poor mental health, and subsequently mom left the relationship. During this time, she returned to school and Thomas' grandmother cared for him.

Slide 39

- I will give a handout with the above vignette in its entirety from within my project chapter 3, connections to practice.
- We will discuss ideas from the following slide.



## Dialogic Relationships Supporting Voice

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### Please Consider:

- How can you also adapt the environment for the child that honors what they are displaying by their behaviour?
- What do you want to child to believe about themselves?
- How do you model to children strategies they can use aware that children's internal voice needed for guiding their behaviour is still developing

Slide 40

## Behavior Is Communication About How the Child Experiences Their Own Sensations, and How They Interpret Their Life Experiences

- What experiences has the child had?
- How does the child respond physically to their environment?
- How do they make sense of what is happening in their world?

### Slide 41

We are going to take the afternoon to try and apply some of the suggested strategies to a case scenario. In your workshop packages, you will find resources that I have gathered from the internet. There are many ideas to explore here, so we will break into different groups that will focus on one aspect, such as temperament, and then share their ideas with the entire group regarding how they see temperament may be impacting the child in the case scenario.

From the perspectives discussed, we can consider behaviour as communicating to us important information about the child. It is essential to remain in a place of wonder with the child, because we are all complex beings with many factors affecting our life experiences. Please know there is no right answer! We are always wondering, could it be this, what is this child communicating, is it about their life experiences, is it about how their sensory system is responding currently, is it stemming from temperament? What MIGHT be occurring. What experiences can I set up to further test these theories I am wondering about for what the child's behaviour is communicating? How can I support them to gain an understanding of their behaviour?

After an hour of your discussions, we will take a 15 minute break and then come back together as a group allowing group leaders to share their discussions.

## BREAK

15 minute break

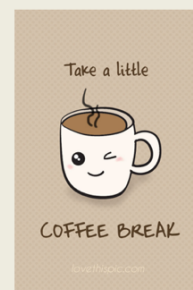


Image source: <http://www.lovethepic.com/image/142444/coffee-break>

### Slide 42



## From the literature reviewed, I came to these conclusions:

- it takes time for children's behaviour to become part of their conscious awareness;
- it is important to support the child to have the time and space to gain an understanding of their own voice through their behaviours;
- by acknowledging the child's behaviours, the child's voice becomes more connected with their body;
- disregard for difficult behaviours influenced by emotions like sadness, anger or fear, can negatively impact the child's later neurological capacity for learning new skills and ways of being.

### Slide 43

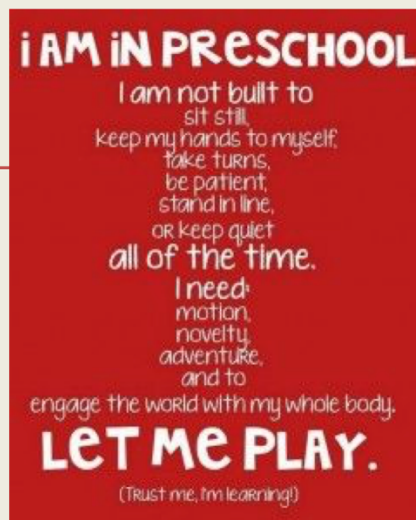
Children's behaviour serve as a function to influence others and the environment, and these behaviours are often outside of conscious awareness. It also takes time before they become part of our own conscious awareness. From these perspectives, I can consider all behaviour as communicating to me important information about the child, and how it is important to support the child to have the time and space to gain an understanding of their own voice through their behaviours. It is further important because by acknowledging the child's behaviours, the child's voice becomes more connected with their body. For this reason, it is essential to remain in a place of wonder with the child, because we are all complex beings with many factors affecting our understanding of our life experiences, and it is important to include children in their own process of learning to understand themselves.

Also, a disregard for difficult behaviours influenced by emotions like sadness, anger or fear, can negatively impact the child's later neurological capacity for learning new skills and ways of being. I also focused on evidence for this particularly in research regarding temperament and sensory processing (DeSantis et al., 2011; Gourley et al, 2013; Rothbart, 2015; Rothbart & Jones, 1998; Tremblay et al, 2004).

## Final Recommendations

The following slides will summarize my conclusions and practice recommendations based on the theory and research reviewed.

Image source:  
<https://www.pinterest.com/pin/357402920404736484/>



### Slide 44

After shared discussions, I will focus on acknowledging the different ways we can consider being with children. I base this on my experiences and how I implement the information I have learned.

## **Environments for Supporting Children's Developing Voice**

- **I create environments allowing for opportunities for pleasure and joy allowing children to experience themselves as competent and capable driven by positive emotions (Izard, 2002).**
- **I create environments allowing the child to explore and express themselves using many different mediums like paints, clay, drawing materials, building materials, outside nature play with open ended materials, musical instruments and props they can explore freely (Rinaldi, 2001a; Rinaldi, 2001b; Rinaldi, 2004; Rinaldi, 2006).**
- **This supports me to gather information about the child, what is important to them, and what theories they are creating about their world.**

Slide 45

## **Environments for Supporting Children's Developing Voice (continued)...**

- **I listen to the parent's stories about their child and their child's life experiences. Listen openly to the parents' beliefs and take moments to be aware of how the child may be communicating this with their body language and how they play (White, 2011b).**
- **I pay attention to how children explore their environments to gather information for their temperaments (Chess & Thomas, 1986; Rothbart, 2015; Rothbart and Jones, 1998) and sensory processing (Dunn, 2001).**
- **I am also aware of my own temperament and how this may or may not fit with the child (Chess & Thomas, 1986).**

Slide 46

### **Environments for Supporting Children's Developing Voice (continued)...**

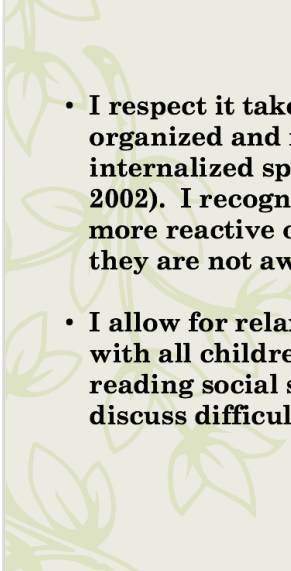
- **I pay attention to how children respond to disappointment or when things do not go the way they want them to (Rothbart and Jones, 1998). This is one indicator of their temperament.**
- **I reflect to the child words that demonstrate respect for their behaviours while still maintaining safety and respect for the environment. Give them language for their behaviours. For example, if a child hits another child and we only respond by saying “hands are not for hitting, use your words to ask for the toy”, I am not acknowledging that the child has used their hands to communicate they want the toy.**

#### **Slide 47**

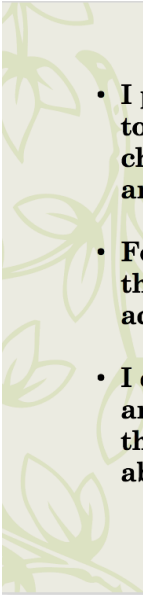
(read slide) While children who do not struggle with on-going big emotional reactions may be able to later correct their behaviour on their own, for children who are not able to change their behaviour, this on-going lack of regard for how they communicate makes it less likely we are going to create an environment for the child that honors how they gather information and how they respond to information. Maybe this child is easily frustrated and so instead we need to focus on that. For example, it looks like you are angry when your hands hit Tommy. I see you really want the toy. Let's take a break and help your body to feel better when you are frustrated. This does not mean we leave the child alone. This means we sit with them and offer them emotional support. Then when the child is calm, take the time to read social stories that offer prosocial ways of sharing. Also, thinking about other tools that may help the child to manage their energy when they are frustrated, such as visuals that remind children how to share.

- **I avoid focusing on teaching new skills or problem solving when a child is very distressed, instead focus on ways child can learn to calm themselves (Izard, 2002).**
- **I offer an activity the child finds pleasurable. I ensure the child does not experience shame for the re-direction (Izard, 2002). I let them know, “You are not in trouble, we are taking a break to help your body to feel better. What can you do to help yourself feel better?”**
- **I explore with children what they like to do when they are calm so you have strategies to refer to when they are distressed. Suggest this as a strategy for when they are upset and need to take a break because they are having a hard time being in control of difficult emotions.**

#### **Slide 48**

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- I respect it takes time for children's behaviour to become organized and for them to start using verbal language and internalized speech to manage their own behaviours (Izard, 2002). I recognize this may take more time for children who are more reactive or for children who remain driven by emotions they are not aware of (Izard, 2002; Vygotsky, 1978).
  - I allow for relaxed but engaged opportunities to discuss emotions with all children (Izard, 2002; Diamond et al., 2007) such as reading social stories with them allowing for opportunity to discuss difficult emotions and how we can manage them.

Slide 49

- 
- I place visuals around the room reminding children the steps to managing big emotions as preverbal and preschool children are still building their capacity for internal speech and still rely on their visual field (Vygotsky, 1978)
  - For children who are quiet, I acknowledge and check in with them regularly, reflecting their actions and value in their actions (Izard, 2002).
  - I create learning stories that captures the child's interests and strengths and reflects to the child an external image of themselves as active learners who possess skills for learning about their worlds (Rinaldi, 2001b).

Slide 50

- **I reflect with parents observations of their child's temperament and how their child appears to process sensory information. I also provide parents with information regarding these constructs.**
- **Strategies I use are individual to each child focused on what they are communicating with their behaviours and sensitive to the child's temperament and sensory needs.**
- **While implementing changes into the program, I am also aware of the population of children I work with and how to balance listening to and acknowledging everyone's voice.**

Slide 51

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Slide 54



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Slide 55

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Slide 56