INVESTIGATING RELATIONSHIPS BETWEEN SCREEN TIME AND YOUNG CHILDREN’S SOCIAL EMOTIONAL DEVELOPMENT

by

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B.Ed., Lakehead University, 2010

A GRADUATING PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

In

THE FACULTY OF GRADUATE STUDIES

(Early Childhood Education)

We accept this graduating paper as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

April, 2017

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Abstract

In this project, I investigate the extant literature examining relationships between young children’s (birth to 6 years old) screen time use and their social emotional development. The social and emotional learning experiences that children have help them to build the foundation for developing various social and emotional skills. Children’s play is considered a significant component in supporting and promoting their social emotional development and, with the infiltration of screen-based technology in our society, children are deprived from opportunities for play. In exploring this topic I examined the benefits of play, the effects of play deprivation, and the possible drawbacks as well as the possible benefits of children’s screen time use on their social and emotional development. To connect the literature reviewed to practice in early childhood education, I have prepared a presentation for parents to support them in promoting their children’s social and emotional development while recognizing the role that screen-based devices has in their lives. Through my exploration of the literature on this topic I learned that while there may be some social emotional benefits from screen time, screen time is not a replacement for the extraordinary benefits that children gain from social play. Recommendations for future study include learning more about the long-term effects of children’s screen time use on their social and emotional development. Recommendations for future practice include the need for parents and educators to be active participants in their children’s screen time use, in addition to being role models in their own screen time habits.
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Acknowledgements

On this journey to completing my Masters, I have felt overwhelmed by the support and encouragement of not only my friends and family, but also of the many people that I have met along the way. First, I wish to acknowledge my advisor, Dr. Mari Pighini. I am so grateful for the time that you have dedicated to helping me achieve this amazing academic accomplishment. Your encouragement and mentorship is greatly appreciated. I also wish to thank all of my fellow ECO4 friends, as well as my UBC professors for their continued support and guidance throughout the last few years.

Finally, I wish to acknowledge my family. My beautiful daughter Calla, you are absolutely my inspiration for pursuing my Masters. I hope that one day this accomplishment will inspire you to follow your dreams. I want you to know that you have the power to do great things and you can accomplish anything that you put your mind to. Glenn, you are such a wonderful husband and it is because of your love and support that I was able to find the confidence within myself to accomplish this dream.
CHAPTER 1: INTRODUCTION

In my capstone project, I investigate relationships between young children’s (birth to 6 years old) social emotional development and their use of screen time - this includes time exposed to iPads and other tablets, computers (desktop and laptops), gaming devices, smart phones, and televisions. Screen time is defined as the amount of time spent using screen based media devices that include televisions, cell phones, laptops, tablets, computers, and video games (Canadian Paediatric Society, 2011). In this paper, social and emotional development refers to children’s capacity to manage and express their own emotions and to build meaningful relationships with other children and adults (Cohen, Onunaku, Clothier & Poppe, 2005). In addition, this definition rests on the assumption that social and emotional learning experiences that young children have, set the foundation for a variety of social and emotional attributes, including empathy, trust, self-confidence, and the ability to relate to others (Cohen et al., 2005).

The social and emotional learning experiences that young children have play a significant role in their overall development, and has been found to improve not only children’s academic performance but also improve their personal life outcomes (Collaborative for Academic, Social and Emotional Learning (CASEL), 2016). I explore how children’s play is a critical component to their social and emotional development (Sumaroka & Bornstein, 2007). With this in mind, I examine the perceived shift in children’s play from social to solitary with the introduction of screen-based media in the early years. I also explore in this project how young children’s social and emotional development may be influenced by their screen time use.
Key Terms

I have organized the key terms into two categories: 1) CASEL’s SEL competencies, and 2) play. I draw upon the five social and emotional learning core competencies outlined by the CASEL (2016), including 1) relationship skills, 2) responsible decision making skills, 3) self-awareness, 4) self-management, and 5) social awareness. I refer to CASEL’s core competencies because the social and emotional learning experiences that children have set the foundation for their development. In addition, I introduce key terms, play, social play, and solitary play.

SEL Competencies.

*Relationship Skills* are children’s ability to develop and maintain healthy relationships with others.

*Responsible Decision Making* is children’s ability to make constructive decisions.

*Self-Awareness* is the ability for children to recognise their own emotions and how their emotions influence their behaviour.

*Self-Management* is the ability for children to regulate their thoughts, behaviour and emotions, as well as control their impulses and manage stress.

*Social-Awareness* is children’s ability to empathize with others.

Play

*Play* is defined by Miller and Almon (2009) as the activities that children choose to participate in for pleasure. Play that is the most critical for children’s development is not directed or controlled by adults, but it is rather directed by the child to help them “make sense of the world” (p. 65).

*Social play*, also referred to as interpersonal play involves “direct, interactive social involvement with other participants” while engaging in play for entertainment (Sumaroka & Bornstein, 2007, p. 295).
Solitary Play is defined by Coplan, Ooi, Rose-Krasnor, and Nocita (2014) as non-social play. It occurs when a child plays alone.

**Context and Personal Background**

As an Ontario registered early childhood educator, a certified teacher, and a mother to a rambunctious toddler, I have had over ten years of experience interacting and working with young children in a variety of settings. For the last seven years, I have been employed as a designated early childhood educator within a full day kindergarten program in a small suburban town in South Eastern Ontario. The school where I work in is a walking only school and does not offer transportation by school bus; therefore, most of the students live in the town or are transported by their parents. The town is surrounded by rural land and located between two large urban centres. Employment opportunities within the town are minimal, and public transportation to urban centres is limited, creating economic challenges for families. Regardless of the financial strain that many parents have within this community, over the years, I have observed an influx in children’s technology use within the home. Many of the kindergarten students with whom I have worked have shared with me that they own their own tablets and smartphones and some have televisions in their bedrooms. I have also had students speak to me about the types of video games they play, the television shows and movies that they watch, many of which are quite violent in nature. Not only do children have more access to screen-based technology within the home, but I have also observed an influx in technology use within the classroom. Within my own classroom, for example, the young learners with whom I work have access to iPads and a Smart Board on a daily basis. This becomes evident through their interactions with screen-based devices that they have experience prior to entering kindergarten.

Throughout my observations as an educator, I am seeing an increase in screen time within classrooms, and, as a parent and a member of society, I am beginning to observe a
significant influx of screen-based media within our daily lives (Greenfield, 2015). As I observed the increase in screen-based devices available within my own classroom, I also started to notice a gradual withdrawal from social, interactive and imaginative play in some children, and they would rather, if they had the choice, sit in front of an iPad, alone, during our free centre time. I have noticed an increase in aggressive behaviours within my classroom, and more children seem to struggle building meaningful relationships with their peers. Some children also have difficulties acknowledging and expressing their own feelings and appreciating and empathizing with the feelings of others.

There are an array of tablets, apps, and electronic toys created for preschoolers, toddlers, and even infants to use (Greenfield, 2015). As I reflect back to when I was first looking for an infant chair for my newborn daughter, I remember coming across a bouncy chair specifically for holding up an iPad for infants and toddlers to use. I could not believe that this type of product was available for parents to purchase for their newborn babies. This piqued my interest even more into the topic of screen time and early childhood. Through this encounter, I wondered if the majority of parents were aware of the importance of social interactions and play for their children’s development and if most parents questioned how screen time would affect their children’s development and I also questioned my reaction. Was my reaction to this product unique because of my extensive education and experience with early childhood development and my strong beliefs in play-based learning? Not only have I observed an increase in screen-based devices targeted to young children, but I have also observed many parents offering their phones to their children as a distraction to de-escalate behaviour in social settings and often used as a babysitter for parents to get things done around the house. This type of behaviour appears to be becoming the norm when I look around the doctor’s office, the mall, or out dining in a restaurant and I wondered if as a society we are fully aware of the possible implications of this behaviour.
As an ECE and as a mother, I questioned whether or not technology is beneficial for our young children to be using, and how screen time is related to children’s social emotional development. These wonderings are the reasons why I decided to pursue a topic on screen time use in early childhood, as I expand in my rationale, further ahead in this chapter, I strive to make informed decisions on using screen time within my classroom and learn how to use it effectively to support children’s social emotional development.

In the next section, I briefly discuss the theoretical background supporting my capstone project.

**Overview of the Theoretical Background**

My capstone project is guided by Vygotsky’s (1966) social cultural theory Bronfenbrenner’s (1994) ecological system’s theory of human development, and Erikson’s (1993) psycho-social theory. I refer to Bronfenbrenner’s ecological systems theory of human development, and Vygotsky’s social cultural theory, grounded on social constructivism (Bronfenbrenner, 1994; Norbert, 2012; Vygotsky, 1966), to guide my literature review and provide a better understanding of the important role that social interactions play in children development. Social constructivism focuses on the relationship between the social and cultural experiences that children have and their construction of knowledge (Norbert, 2012). Vygotsky (1966) believed that social play, specifically socio-dramatic play was paramount in children’s development and should be encouraged to help children learn about their emotions and practice social skills. Bronfenbrenner’s (1994) ecological systems theory also guides my project as I investigate the various proximal processes that influence children’s development within their microsystem, including their relationships with screen-based devices and the social interactions that occur between child and parent. I draw from Erik Erikson’s (1993) psycho-social theory to support my research by focusing on children’s stages of emotional development. Erikson’s third stage of development, initiative vs. guilt, as I found this to be the most relevant stage for my
project. This is because within this stage children enhance their emotional development by participating in various types of active play including fantasy play, cooperative play, and play that requires both leadership and follower roles (Batra, 2013; Erikson, 1993). In Chapter 2, I further elaborate on Vygotsky’s (1966) sociocultural theory, Bronfenbrenner’s (1994) ecological systems theory as well as Erikson’s (1993) psycho-social theory.

**Introduction to the Review of the Literature**

I examine literature by Sumaroka and Bornstein (2007), Elias and Berk (2002), and Wooldridge and Shapka (2012) that focuses on the benefits of play. I also examine the effects of play deprivation through literature by Frost (2010), Greenfield (2015), Murray and Murray (2008), and Radesky and Christakis (2016). I explore literature by Lilliard and Peterson (2014) and Radesky, Silverstein, Zuckerman, and Christakis (2014) to discuss the effects that screen time has on children’s executive functioning skills. I also explore literature by the American Academy of Pediatrics (2016), Canadian Pediatric Society (2012), and Mangeloo and Taylor (2008) to investigate how screen time may influence children’s aggression. Finally, I review literature by Rideout, Vandewater, and Wartella (2003) and Van Evra (2004) to learn more about the positive outcomes on children’s social and emotional development associated with screen time use in the early years. The selection criteria that I have used for the literature review in this project included studies that were written in English and for the most part focused on children from birth to six years of age. Although my capstone focuses on early childhood development, some of the studies included children older than six. The studies I used connected to play and how it relates to social emotional development, as well as first hand studies that examined both the negative aspects of screen time, as well as possible benefits of using screen time in early childhood. I also used literature reviews, position statements, and theoretical literature to help build connections to the primary research.
In the next section I share the reasons why investigating relationships between screen time use and children’s social emotional development is a very important topic to further examine.

**Rationale and Importance**

Play is a fundamental part of children’s lives and encourages growth in all areas of development (Vygotsky, 1966). Through play, children are provided with a platform to experience and express a wide range of emotions, practice their conflict resolution skills, manage their impulses, as well as interact with adults and peers in a variety of meaningful ways (Sumaroka & Bornestein, 2007). The social and emotional development that occurs when children play sets the foundation for children’s abilities to build meaningful relationships, understand and express their feelings, feel and show empathy for others, and make responsible decisions (CASEL, 2016). With the understanding of the importance of play, specifically that of social play, I wonder how children’s social and emotional development is being influenced, as play in naturalistic and outdoor settings is pushed to the side and replaced with excessive solitary screen time (American Academy of Pediatrics, 2016; Canadian Pediatric Society, 2012; Frost, 2010; Greenfield, 2015).

I believe that this topic is important because parents and educators do have a right to reputable information including the benefits of play, pediatrician recommended daily screen time exposure allotments, and the negative and positive outcomes of screen time use on children’s development. This, in turn, is important because it allows parents and educators the opportunity to make informed decisions about screen time, and the possible effects of incorporating it into their children’s lives. With the influx of screen-based media at home and within the school systems, it is important that parents and educators have access to strategies that can help them make screen time more meaningful for their children’s social and emotional development.
Purpose and Guiding Questions

The purpose of my proposed capstone project is twofold. First it is to learn more about how young children’s screen time use, specifically solitary screen time use, and how this is related to their social and emotional development. The second purpose is to investigate parents’ roles in their children’s screen time use and learn strategies to help support children’s social emotional development while also taking into consideration the demand and accessibility of screen-based devices. I believe that this project is significant to both parents and early childhood educators because it provides information to the potential drawbacks of screen time, and it also recognizes the popularity of screen-based technology within our society and describes possible positive outcomes of screen time and how parents and educators can effectively incorporate screen time into their children’s lives to support their social and emotional development.

The questions that guide my capstone project are:

1) How does solitary screen time use relate to how young children are developing both socially and emotionally?

2) In what ways may parents influence children’s screen time use?

3) In what ways may parents use screen time devices to support children’s social emotional development?

Summary and Organization of Project

In Chapter 1, I shared my topic and the reasons why this topic is important to me, as well as the theoretical framework, rationale, purpose and guiding questions that will steer my capstone project. In Chapter 2, I expand upon my theoretical framework, and provide an in depth literature review of applicable research on the importance of play for children’s social and emotional development. I also examine the extant research on the possible drawbacks and
benefits of incorporating screen time into young children’s lives. In Chapter 3, I make connections between theory and practice as I describe strategies that parents can do to effectively include screen time into their children’s lives that may help support their social and emotional development. In Chapter 4, I provide a summary of my findings, share my reflections, limitations and conclusions as well as provide recommendations for future studies and practice.
CHAPTER 2: LITERATURE REVIEW

In this chapter, I discuss the theoretical frameworks that guide my project, as well as share an in depth review of the extant literature that examines the importance of play, and literature that examines how screen time use in early childhood relates to children’s social emotional development.

Social Cultural Theory

Lev Vygotsky, a Russian psychologist (1966) articulated the posits of the social cultural theory which draws from social constructivist perspectives as Vygotsky recognized the significant role that social and cultural experiences play on children’s intellectual development (Gauvain, 2008). Vygotsky demonstrated a social constructivist framework as he examined how children learned through their social interactions, specifically while in play. Vygotsky believed that the social interactions that children have are instrumental for their development (Gauvain, 2008). Vygotsky (1966) theorized that play was an essential component for children’s development, stating that play is “the leading source of development in the preschool years” (p. 6). Through play, children are able to express their needs and grow in all developmental domains. Vygotsky (1966) believed that children’s play specifically of preschool-aged children, plays a tremendous role on their development, and theorized that play encourages children to develop their impulse control. Vygotsky stated that this is “because to observe the rules of the play structure promises much greater pleasure from the game than the gratification of an immediate impulse” (p. 14). As such, play encourages children to practice self-regulation, as they learn to follow the rules of various games, as well as the rules of behaviour during socio-dramatic play, rather than succumb to their immediate impulses.
The topic of my capstone project connects with social cultural theory by exploring how play influences children’s social development, while also investigating the relationship between young children’s solitary screen time use and their social development. The importance of social interactions on children’s development is echoed in the next section through the work of Urie Bronfenbrenner (1994).

**Ecological Systems Theory of Human Development**

Bronfenbrenner’s (1994) ecological systems theory demonstrates the relationship between individuals’ direct and indirect environments, their social interactions, and their development. Bronfenbrenner’s ecological systems model describes five social systems which include microsystems, mesosystems, exosystems, macrosystems, and chronosystems. These systems are described as a “set of nested structures, each inside the others like Russian dolls. Moving from the innermost level to the outside” (Bronfenbrenner, 1994, p. 39).

The first system within the system are the microsystems. Microsystems include children’s immediate environment, comprised of family settings, peer groups, and the school environment. Microsystems are the interactions that occur on a daily basis and have a direct influence on children’s decisions and behaviour. Mesosystems are described as the merging of two systems containing the developing child. Children do not play a direct role within their exosystems, as exosystems are described as the interactions between other individuals and places, however, such interactions influence the child’s microsystems. Macrosystems are the cultural beliefs and ideologies of the society where the child lives. The final system of Bronfenbrenner’s (1994) ecological systems theory are the chronosystems which are the personal and environmental events that occur over time, throughout a child’s life.

Bronfenbrenner also examined how proximal and distal processes within a child’s ecological system influenced their development (Goelman & Guhn, 2011). Proximal processes
include the direct and complex interactions that a child has with not only other people, but also with objects and symbols within their immediate external environment (Goelman & Guhn, 2011). Bronfenbrenner believed proximal processes, that occur within the child’s microsystem are the “engines of children’s development” (Bronfenbrenner & Morris, 2006, p. 798). Unlike proximal processes, distal processes are settings that typically do not include the child, but indirectly affects the child’s development by influencing the proximal processes that occur within the child’s microsystem (Miller, 2003).

Bronfenbrenner’s (1994) ecological systems theory is important to my capstone project because my project specifically examines how the proximal processes within children’s microsystems are related to children’s social and emotional development. The proximal processes that I examine are both face to face interactions through parent-child relationships and through play, as well as solitary activities including time spent with screen and electronic devices. Bronfenbrenner stressed the importance of social relationships on fostering children’s development, my capstone further examines this theory while considering the role that screen-based media plays most in young children’s lives (Miller, 2003).

Similar to Bronfenbrenner, Erik Erikson (1993) also believed that the social interactions that children have are paramount to their social and emotional development. Erikson’s psychosocial theory is described in more detail in the following section.

**Psycho-Social Stages of Development Theory**

Erik Erikson (1993) focused on the social influences that affect children’s psychosocial development. Erikson’s psycho-social stages of development theory described eight stages of development that individuals should experience from infancy through adulthood. The stages of development that align with the targeted age group of my project are the first three stages
outlined by Erikson including trust vs. mistrust occurring from birth to one, autonomy vs. shame and doubt occurring from age one to two, and initiative vs. guilt occurring from age three to five.

During the first stage of development, trust vs. mistrust, the quality of the social exchanges between mother and infant are critical for the child’s development. Erikson (1993) believed that “the amount of trust derived from earliest infantile experiences does not seem to depend on absolute quantities of food or demonstrations of love, but rather on the quality of the maternal relationship” (p. 249). Through the development of trust, children develop a sense of self (Erikson, 1993). During the second stage, autonomy vs. shame and doubt, children develop a sense of self control and independence. If children are not given opportunities to take risks and explore their world, they may become dependent on those around them and lose confidence within themselves (Erikson, 1993). The third stage of Erikson’s psycho-social development theory, initiative vs. guilt, is the most significant to my capstone project as it is within this stage where children’s play becomes more evident and prominent in their development. During this stage of development, children explore fantasy and role play, they make up and participate in games as well as cooperate with others, play becomes more social and children have a desire to initiate play with others (Erikson, 1993). According to Batra (2013) Erikson believed that:

children’s play is interpreted as children’s initiative aimed at fulfilling a significant developmental need for social exchange and problem solving relevant to their age.

When denied the psychological and social space necessary for experiencing a sense of initiative, children develop self-doubt and guilt. Persistent self-doubt can have an adverse impact on the self-esteem of a growing child. (p. 250).

While keeping in mind the concern that Erikson (1993) shared about the impact of children not fulfilling their developmental needs, it is concerning that children are spending copious amounts
of time using screen based media and this could potentially influence how children develop, as their social play is overshadowed by solitary play.

In the next section I present the review of the literature.

**Review of the Literature**

I begin this section with an examination of current research that expands on the significance that play has on children’s social and emotional development. The significance of play on children’s development is recognized throughout the world and is listed as a fundamental right by the United Nations (1959). There is a considerable amount of evidence that supports the importance of play on children’s social emotional development. Through the social exchanges that occur during play, children learn a plethora of important social skills including self-regulation, empathy, cooperation, turn taking, conflict resolution, as well as learning to follow rules, and understand limits (Guernsey, 2007; Macintyre, 2012; Sumaroka & Bornstein, 2007). Play provides children with opportunities to express and learn about their own feelings, “children experience and express a wide range of emotions such as joy and sadness, fear and excitement, or pleasure and anger. Play can be a unique platform for experiencing certain emotions. Example of peek-a-boo game which allows children to experience and control their emotions related to separation and reunion” (Sumaroka & Bornstein, 2007, p. 295). Play also helps children develop a sense of motivation and self-efficacy, it helps children develop their impulse control, encourages problem solving, and it helps children build confidence to try new things and take risks (Macintyre, 2012; Sumaroka & Bornstein, 2007).

Elias and Berk’s (2002) seminal study further investigated Vygotsky’s theory of sociodramatic play, specifically how socio-dramatic play influences children’s abilities to self-regulate. The study used naturalistic observations of dramatic play, clean-up time, and group circle time within two preschool classrooms. Observations 51 middle income 3-4 year during
clean-up and circle time were assessed the children’s self-regulation were contrasted with the amount of time spent in socio-dramatic play. Elias and Berk found that children who had more opportunities to engage in socio-dramatic play took on leadership roles when it was time to clean up and their impulse control had improved. Similar to sociodramatic play, free play, and child directed play are also identified as being incredibly beneficial for children’s social and emotional development. Elias and Berk’s findings highlighted Vygotsky’s assumption that “...sociodramatic play in early childhood contributes importantly to the development of self-regulation” as the study also found that socio-dramatic play did appear to improve children’s self-regulation skills (p. 216).

In a similar follow-up report examining nine studies focused on the “role of play, child-initiated learning, highly structured curricula, and standardized testing,” Miller and Almon (2009) shone a light on how the decline of child directed play in kindergarten may affect children’s creativity, empathy, as well as contributing to children’s aggression and anger as play is used as an emotional outlet for young children (p. 17). In a related article from the “American Journal of Play,” Gray (2011) examined literature by historians of play, various studies and surveys on play, including children’s technology use within the home, parents’ fears about outdoor play, and parents’ reflections on their play as children in relation to their children’s play, as well as various questionnaires and studies on children’s psychopathology, including narcissism, anxiety, and depression. Gray noticed a possible causal relationship between a decrease in play and an increase in children’s mental health concerns. Gray (2011) stated that the recent decline in children’s free play may be connected to the noticeable increase in children’s emotional health issues including anxiety and depression.

The introduction of electronic toys and screen-based toys appears to also be influencing the social and emotional aspects of play. In a study examining the effects of children’s use of
electronic toys on parent-child interactions, Wooldridge and Shapka (2012) used the observational measure, PICCOLO (The Parents Interacting with Children: Checklist of Observation Linked to Outcomes), and observed 25 mother–toddler (16–24 months old) dyads within their own homes. Each dyad was videotaped for approximately 10 minutes while playing with sets of age-appropriate electronic and non-electronic toys. The results of the PICCOLO supported their hypothesis “that electronic toys may have a negative impact on the quality of parent–child interactions” (Wooldridge & Shapka, 2012, p. 215). Wooldridge and Shapka found that parents were less responsive and encouraging of their children in comparison to that of the parent-child interactions that occurred while playing with traditional toys. Wooldridge and Shapka believed that parents felt that their role in play was “less important in the face of entertaining electronic toys, or that a digital program has the power to teach a child through simple exposure” (p. 216). Therefore, electronic toys may significantly impact parent-child interactions because on the one hand, parents may not know how to engage with their child during their play with electronic toys, and, on the other hand, they may feel that their role in during electronic play is not as important as it is during play with more traditional toys.

These research findings demonstrate the important role that play has on children’s social and emotional development. Later in the paper, I will examine literature that is suggestive of positive benefits of screen time for children’s social and emotional development (e.g., Gentile et al., Mares & Woodard, 2010, and Van Evra, 2004). However, it is apparent through the above described findings in the literature reviewed that screen time cannot replace the magnitude of developmental benefits offered by social play (Frost, 2010; Greenfield, 2015; Murray & Murray, 2008). As educators, it is important that we recognize the positive effects that play can have on children’s development and ensure that children have time for social exchanges through their
play. In the next section, I examine how screen time use is inadvertently influencing children’s time for play.

**Increased Screen Time and Play Deprivation**

According to Murray and Murray’s (2008) article about the uses and effects of television on children’s social and emotional development, stated that the social, face-to-face interactions that occur during infancy are monumental as they set the ground-work for individuals to build meaningful relationships throughout their lives. Play is a significant part of the social interactions that occur during early childhood and with the increase of screen based devices, the way in which children play is evolving. Now more than ever before, children have access to many forms of screen based media including televisions, computers, video games, and portable devices such as tablets and smartphones (Canadian Pediatric Society, 2011). With the increase of the accessibility of technology, researchers have found that children are exceeding pediatricians’ daily screen time recommendations. Through the accumulation of research cited references include, Rideout (2013), Richert (2010), and Vandewater, Barr, Park and Lee (2010) examining the effects of screen time on children’s health and development, pediatricians’ have recommended strictly limiting screen time, to non-screen time at all or restricting screen time to only video chatting and high quality programming and apps for children under two years of age. The current pediatric guidelines state that children over two years of age should have less than an hour a day of high quality screen time, and parents are encouraged to make screen time a social activity by co-viewing and co-playing with their children in their screen time use (American Pediatric Academy, 2016; Canadian Pediatric Society, 2011). Although pediatricians recommend parents to follow such screen time limitations for their children, an American nationwide survey examining trends in new digital technology use of families with children between the ages of 0
and 8 years old, showed that most children under the age of eight are spending an average of three hours per day using screen-based media (Radesky & Christakis, 2016).

In separate yet related literature reviews examining preschool and school-aged children’s screen time use in relation to their time spent in play, Frost (2010) and Greenfield (2015) concluded that children are experiencing play deprivation due to their digital lifestyles. More specifically, Greenfield reported that children are spending more time playing in a two-dimensional world and less time exploring and playing in their physical environment with others. Through her examination of literature on the impact of technology on brain development, Greenfield referenced British child psychologist, Professor Tanya Byron’s belief that children’s lack of play, specifically outdoor play could affect children’s abilities to cope with challenges and take risks as they become adults “nothing can replace what children gain from the freedom and independence of thought they have when trying new things out in the open” (Byron, n.d., as cited in Greenfield, 2015, p. 22). In turn, Frost literature on play deprivation including multitude of studies, surveys and a report by the American Academy of Pediatrics on the benefits of play for children’s brain development and general health. Frost believed that it is critical for parents to turn off the “tech toys” and limit cyber play as children are trading active social play with family and peers for solitary, sedentary virtual play. Through his examination of the literature, Frost found that play deprivation as a result of excessive screen time can have on children’s development and health and stated that “play deprivation can be associated with physical and emotional illnesses, depression, violence, diminished impulse control, addictive predilections, low school achievement, and social abnormalities” (p. 6). In sum, the findings from Frost’s and Greenfield’s reviews have shown that children’s lack of free play due to their solitary and sedentary digital lifestyles could have long term effects and influence children’s social and emotional development into adulthood.
In the next section, I examine relationships between excessive screen time exposure and children’s executive functioning skills.

**Screen Time and Executive Functioning Skills**

Radesky et al. (2014) explored how early childhood media exposure is related to difficulties in self-regulation (self-soothing, falling and staying asleep, and modulating emotions) among infants and toddlers. Radesky and colleagues collected data from 7450 children between the ages of 9 months and 2 years old using the Infant Toddler Symptom Checklist (ITSC) that parents completed to scale their child’s self-regulation. The findings in their study revealed that infant and toddlers with self-regulation difficulties were exposed to more media on a daily basis compared to their peers. They also found that toddlers whose self-regulation skills had worsened since infancy were correlated with the amount of screen time that they were exposed to, more than two hours per day. Radesky et al. discussed that in early childhood, children begin developing their media habits and through their study they found that infants who were exposed to excessive amounts of screen time, were more likely to be exposed to even more in toddlerhood. Radesky et al. found that caregivers often placed infants and toddlers in front of media to help distract and entertain them or as a tool to help soothe an upset child. Radesky et al. recommended that parents learn strategies to help support children develop their self-regulation skills through behavioural scaffolding and limit children’s media exposure, as “infant self-regulation and early childhood cognitive and behavioral self-regulation (i.e., executive function) can be improved over time with sensitive, responsive parenting” (p. 1177).

Authors who have examined the effects of screen time use on children’s executive functioning skills, include Lilliard and Peterson (2011), who have reported that children’s development of executive functioning skills and their social emotional development are greatly intertwined. Executive functioning skills are evident throughout CASEL’s (2016) core social
emotional learning competencies as executive functioning includes children’s abilities to problem solve, regulate their emotions, and control their impulses. Children’s executive functioning skills are developed through modelling, scaffolding, practicing skills, and through social interactions. Lilliard and Peterson studied the immediate influence that fast paced television shows had on 4 year old children’s executive functioning skills. Through their study they found that after only 9 minutes of exposure to a fast paced cartoon, the children’s executive functioning skills, specifically their self-regulation, working memory and delaying gratification skills were negatively affected in comparison to children who had watched an educational program or who had participated in free drawing. If limited amounts of fast paced screen time are negatively affecting children’s executive functioning skills, then Lilliard and Peterson questioned the long term effects that excessive amounts of fast paced television shows could have on children’s development. With research being quite limited on the effects of screen time use in early childhood, caregivers and educators should aid on the side of caution when including screen time as part of their children’s daily routines. In the next section, I further examine the possible drawbacks of screen time on children’s social and emotional development by examining how it affects children’s aggression.

Screen Time and Aggression

Although it is recommended that screen time be limited to high quality programming for young children, many children are exposed to television shows and video games that are violent in nature (American Academy of Pediatrics, 2016; Canadian Pediatric Society, 2011). Impulsivity, restlessness, and aggression in children have all been linked to the amount of screen time that children are exposed to, as well as their exposure to violent television shows and video games (Murray & Murray, 2008). Van Evra (2004) shared that avoiding violence while watching television is a very difficult task to do as more than 60% of all shows sampled during a 3 year
In the final section of the review of the literature, I examine the extant research on the positive outcomes of screen time on children’s social and emotional development.

**Positive Outcomes Social and Emotional Outcomes of Screen Time**

Although a significant amount of research is available on the negative outcomes of television use and other screen time activities on children’s social and emotional development, some positive outcomes have also been identified and should also be recognized. Van Evra (2004) conducted a review of studies examining the effects of television on children’s development. Van Evra shared that studies conducted in both naturalistic and laboratory settings have found that children can also learn prosocial behaviours including “increased generosity, cooperation, adherence to rules, delay of gratification, friendliness, and decreased fear” (Rushton, 1988 as cited in Van Evra, 2004, p. 160). Television use has also been linked to increased imagination, creativity, and tolerance in children, and can also provide role models for children, and strengthen family ties and values and some shows have been linked to an increase in children’s nurturance and sympathy (Van Evra, 2004).

Ample evidence is available that examines how children mimic violent behaviour and develop aggression from television and video games; however, findings from additional studies including Rideout et al. (2003) have reported that children are more likely to imitate prosocial behaviours observed through their screen time use than aggressive behaviours. Rideout et al. report, based on a nationwide study by the Henry J. Kaiser Family Foundation on infants, toddlers, and preschool children’s electronic media use, found that “by the time children are a
little older—in the four to six age range—more than eight in ten (87%) parents whose children watch TV have seen them imitate positive behaviors and nearly half (47%) say they’ve seen their children imitate aggressive behaviors from TV” (p. 8). Friedrich and Stein’s (1973) seminal study about the prosocial effects of children’s television use was conducted over thirty years ago; however, the results from their study are echoed in more recent studies. More specifically, Friedrich and Stein found that children who watched the prosocial television show “Mr. Rogers” demonstrated a growth in self-regulation through “increases in task persistence, and they tended to increase in rule obedience and tolerance of delay as well” (p. 57). Children with low socioeconomic status made gains in their prosocial interpersonal skills that was demonstrated by an increase in “cooperative play, nurturance, and verbalization of feeling when they were shown the prosocial programs” (p. 57). Similarly, Gentile et al. (2009) and Mares and Woodard (2010) found through their studies on the effect of screen time on children’s behaviours, that children who played video games and watched television shows with prosocial themes, often displayed prosocial behaviours including fostering positive social interactions, reducing aggression and encouraging other children to be more helpful and tolerant of their peers.

Having examined the literature, it is evident that to foster children’s social and emotional development, children must have ample time to play, moreover it is paramount that when incorporating screens into children’s daily routines, caregivers need to be mindful that there are both negative and positive developmental outcomes associated with screen time use in the early years.

In Chapter 3, I connect the theoretical frameworks and the extant literature to screen time use in relation to children’s social emotional development. I also suggest practical strategies that parents and educators can do to implement screen time with their children in ways that will effectively support their social emotional development.
CHAPTER 3: CONNECTIONS TO PRACTICE

In this chapter, I connect the theories discussed and the literature reviewed in Chapters One and Two to my own practice as an early childhood educator. Through my connections to practice, I offer “real-world” applications for supporting children’s social and emotional development using screen-based devices. I also present a presentation (Appendix A) targeted for parents of young children to help support them in making informed decisions about incorporating screen time into their children’s lives.

I have organized Chapter 3 into three parts. First, I speak to my first guiding question, “How does solitary screen time use relate to how young children are developing both socially and emotionally?” through the sharing of my experiences and beliefs on the importance of play for children’s social and emotional development. I also share my observations on solitary screen time within my classroom and how it appears to affect my student’s social and emotional development. Next, I speak to my second guiding question, “In what ways do parents influence children’s screen time use?” by discussing parents and educators roles in limiting children’s screen time through setting time limitations, turning off screen-based devices when not in use, and being role models for their children by reflecting upon their own screen time habits. In addition, I share conversations that I have had with my students as well as their parents about screen time use within their homes. Finally, I speak to my third guiding question, “In what ways can parents use screen time devices to support children’s social emotional development?” and offer strategies that parents and educators can use to support their children’s social and emotional development while using screen-based devices that I have used within my own classroom and that I have learned through my literature review.
An Invitation to Unplug and Play

As introduced in Chapter 1, I aim to support parents and educators in using screen time in effective ways to support children’s social and emotional development. However, I first must share that although there is research that promotes the use of screen time for social emotional development, it cannot replace the considerable amount of benefits that play offers a developing child. Therefore, I begin this chapter by discussing my personal experiences with play in terms of my being engaged in play activities within an early learning environment. I also share practical examples of how to implement play without screens to support children’s social and emotional development.

Although a vast amount of research is available on the benefits of play on children’s social emotional development, play deprivation due to increased screen time is a great concern (Frost, 2010; Greenfield, 2015). One of the most meaningful ways for children to learn and develop is through play; therefore, it is very important that parents and educators make time for children to play without the distractions of screens. As previously mentioned, I am a firm believer in play-based learning and this is evident within my own classroom. I believe that play is undoubtedly the most important activity that children can do to learn and enhance their social and emotional development. During my time as an ECE within the child care environment, child-directed play was always a major focus. I am thrilled that this focus has now been infiltrated within Ontario kindergarten classrooms as well. For example, The Kindergarten Program (2016), Ontario’s kindergarten curriculum document, places a significant amount of focus on play-based learning within the full-day kindergarten program. With this support for play-based learning, I am able to feel confident that I will be supported by administration in my decisions to incorporate a significant amount of play within my kindergarten program.
Every morning, after our welcome circle, the children have their time for free play. It is completely child-directed as they have the choice to choose where and what they play with within the classroom. Although my students do have access to screen-based media at various times through the day, I do not incorporate them into the morning free play. However, in the past, I had included them within my morning play, but I found that the children were not wanting to play with anything else, and most of the play was solitary in nature. The children seemed unaware of what was going on around them and lacked interest to socialize with others. Through these observations, I decided that the morning play time would be screen free. Free play is important because it allows children to explore their responsible decision making skills as they have the opportunity to make choices of what and how to play with the materials within the classroom, as well as with whom they decide to play with. Free play also encourages responsible decision making skills as they learn to deal with various conflicts (CASEL, 2016). I believe that planning for child-directed play each day is important for young learners as it allows children to practice self-management by practicing their self-regulation skills and learning how to control their impulses. During this free play time, I ensure that I include dramatic centres set up and often the children help me decide what will be included in these centres, depending on their interests. Socio-dramatic play is fundamental for social and emotional development because it provides children with opportunities to role play, to develop empathy that is, their understanding of others’ perspectives, their social-awareness, and to learn about their own emotions, or self-awareness. I also offer my young students board games and puzzles to play with as these types of games help children to develop their relationship skills as they learn to take turns and cooperate with others. In my experience, it is important to offer children a variety of play opportunities both through interpersonal and object play to help further their social and emotional development while also limiting the amount of screen time that children are exposed to. In the next section, I
explain why parents and educators should be cognisant of the amount and type of screen time that they allow young children to use, as well as how they can limit their children’s screen time exposure through some simple strategies discussed in the literature from Chapter 2.

**Limiting Children’s Screen Time Exposure: Considerations and Strategies**

As discussed in Chapter 2, both the American Academy of Pediatrics (2016) and the Canadian Pediatric Society (2011) recommend caregivers set limits on the amount of screen time to which their young children are exposed. Based on my observations, I have realized how the findings in research conducted by Lillard and Peterson (2011) and Radesky et al. (2014) on the negative influence that excessive screen time can have on children’s social and emotional development, specifically affecting children’s levels of aggression, development of empathy, self-regulation, and their ability to delay gratification. By setting limits to children’s screen time use, children will have more time to participate in play.

Strategies that parents and educators can use to help limit the amount of screen time that their children are exposed to include adhering to the recommended screen time allotments set forth by both the American Academy of Pediatrics (2016) and the Canadian Pediatric Society (2011). Parents and educators need to understand that the screen time recommendations include all types of screen-based media including video games, tablets, smartphones, and computers, not only television watching (Canadian Pediatric Society, 2011). Considering Bronfenbrenner’s ecological systems theory, and specifically the development that occurs within children’s microsystem, it is important to recognize the role that caregivers play on children’s screen time habits. Parents and educators represent tremendous role models for children; therefore, it is critical that caregivers are cognisant of their own screen time behaviours. These connections reflect the posits from the Canadian Pediatric Society in reference to strategies for limiting children’s screen time use, as they stated that “children learn many of their values and ideas from
their parents. Be aware of your own media habits and change them if necessary” (para. 5).

Parents can also influence the amount of screen time that their children are exposed to by ensuring that all screen-based devices are turned off when they are not in use. The Kaiser Family Foundation Report “Zero to Six,” as referred to in Chapter 2, stated that the majority of families leave televisions on throughout the day, even though no one is watching it. I resonate with Radesky and Christakis’ (2016) findings in that background screen-based media is a major contributor to children’s screen time and although children may not be directly participating in the screen time or watching the specific television program, background screen-based media has been found to negatively impact children’s social and emotional development as it distracts from parent-child interactions.

I have observed the negative influence that screen time can have on adult-child interactions within my classroom and through conversations that I have had with parents about their children’s screen time use. Through my observations, I have witnessed the hypnotising effects that screen time can have on children. For example, if I neglect to turn off my classroom Smart Board, it can be very difficult for children to ignore that it is on, even if it is a still screen without a specific programming playing. It is incredibly distracting for them. It is very difficult for them to redirect their attention from staring at the screen to focusing on a read aloud or listening to the instructions for the next task. With how distracting screen-based devices can be, I encourage parents to turn off televisions and computers when not in use. I also recommend to parents that they be mindful of their own screen time use as parents’ use of handheld devices, specifically their phones are another major contributor to detracting from parent-child social interactions. Parents are encouraged to plan to turn off their phones to fully engage with their children. For example, strategies I have recommended include setting family rules around screen
time use by planning to always turn off cell phones at the dinner table allowing for less
distraction and more meaningful social interactions to occur.

Along with turning off screen-based media when they are not in use and parents being
mindful of their own screen time use, parents are also encouraged to remove screen-based media
from children’s bedrooms. As mentioned in Chapter 2, Rideout et al. (2003) found that children
with screen media in their bedrooms spend more time using them than children who do not have
screen media in their bedrooms. Through conversations with my students, I know that many of
them have televisions in their bedrooms, as well as their own tablets and smartphones. Not only
does screen-based devices in children’s bedrooms influence children’s immediate social
interactions, but I have also observed how children’s screen time use within their bedrooms,
specifically at night, influences their social interactions the next day. I have many children in my
class who come to school too exhausted to actively participate in our daily activities because
they were up late playing on their phones, watching videos on their tablets or watching movies
on their televisions — having screen-based devices within children’s bedrooms makes regulating
their screen time use very difficult.

In reference to the recommendations from the Canadian Pediatric Society (2011)
children should not have any screen-based media in their bedrooms and such devices should be
placed only in common areas in the home. I concur with these recommendations in terms of
limiting the location of where children can use screen-based devices in that this will not only
promote more socialization between children and parents, it also allows parents to be more aware
of the amount of screen time that their children are using, as well as ensuring the content is
appropriate. In the next section, I establish connections between the literature reviewed and my
professional practice to share strategies on how parents and educators can use screen time to
support children’s social emotional learning.
Adult / Child Interactions during Screen Time

As I previously mentioned, I try to incorporate ample time for free play within the daily routine of my classroom. My role during this free play time is often that of a play partner and observer. I find this time to be invaluable for learning about and from my students and I try to limit my intervening on their play and rather I aim to be an equal participant. I echo Sumaroka and Bornstein’s (2007) statement that “joint play with caregivers brings the quality of children’s play to a new level. During play with a caregiver, children are expected to (and often do) exhibit higher levels of play (more sophisticated pretense and symbolism) than when playing alone” (p. 296). In Chapter 2, I discussed Wooldridge and Shapka’s (2012) findings that the quality of children’s play and the mother-child interactions were compromised by the incorporation of electronic toys during joint play. Wooldridge and Shapka’s posit regarding parents feeling that they are less needed during play with electronic toys resonates with me because I too have felt a sense of uselessness while my own daughter or students were engaged in electronic / screen-based play. Through my experience though, I do believe it is important for caregivers to find ways to become active participants in their children’s play, regardless of the type of toy or device. In the next section, I turn to specific examples of ways that parents and educators can engage with their children while they use screen-based devices to support their social and emotional development.

Some strategies that parents and educators can use to be more active participants in their children’s screen time play include getting involved, joining in the play, and encourage screen time to be a more social event rather than a solitary one. I concur with the Canadian Pediatric Society’s (2011) recommendation that parents and educators engage in conversations with their child during their screen time play by listening to them, asking them questions and being active participants in their child’s play. Parents and educators can use this play time to also
encourage children to take turns, and learn to problem solve for very young children. I once again, resonate with the strategies shared by Sumaroka and Bornstein (2007) on how parents can be active participants in children’s object play. Parents and educators can include themselves in their children’s play by exposing children to new objects and teaching them the different functions and properties of various objects. By participating in children’s object play, parents encourage children to inquire about their environments and further their learning. Within my kindergarten classroom, my students do have access to two iPads. As I previously mentioned, I often found that my students appeared to be consumed by them and they were often used for solitary enjoyment. To encourage more engagement and socialization while using the iPads, I taught my students how to make videos and take pictures rather than just using the iPads for game use. The children were really excited about taking pictures of their friends and things around the room. Not only did this allow for me to be included in their screen time play, but it also opened the door for more social play between peers. The children were conversing as they shared their pictures with one another, laughing together at the videos and planning together their next steps. Although the children enjoy looking back through the photos that they take through the iPad’s photo gallery, I usually help the children select photos that they want to print out and post around our classroom. This takes the level of engagement to the next level, by allowing the children to reminisce about specific events and encourages conversations between children, teachers, and parents when they come in our classroom.

In the next section, I provide further strategies for caregivers to use to support the development of children’s prosocial skills through the types of shows, videos and games that children are exposed to while using screen-based media devices.
Be Mindful of Content

I believe in the importance for parents and educators to be mindful of the content that children are exposed to while participating in screen time. I learned this very valuable lesson years ago when I decided to put on an online story for my kindergarten class. In my classroom, once in a while I will show my students interactive stories on the Smart Board. These interactive stories are books that have been made more interactive through the addition of animations and voice overs and are available through multiple websites created for educators and parents to use with children of various ages. One day, I was showing my class one of these interactive books about Halloween, once it was finished one of my students asked if we could watch another and requested one that he had seen on the main page of the website. I had not previewed it, but thought that I could trust the website and age recommendations of the story, so I shared it. I regretted this decision within minutes the story starting. I felt that this story was not age appropriate and became aware that some of my young students were scared of the dark content and pictures of the story. I immediately turned off the video and made a conscious note to myself to always preview what I show my students. I then learned that I could not solely trust that a show would be appropriate based on the program’s age group recommendations. I realized how, by previewing content prior to children’s exposure, educators, parents, and caregivers can ensure that children are not being exposed to content that is not age-appropriate or violent in nature.

Many of my students, particularly the boys, participate in aggressive play where they pretend to be “Power Rangers,” superheroes, wrestlers, and police officers. Such play includes kicking, wrestling, punching, and pretending to shoot guns. Some of my students have also demonstrated an idolization of villains and aim to hurt others and cause damage to the environment. The Canadian Pediatric Society (2011) recommends that parents “learn about the
Canadian and American ratings systems for television, music, movies and video games” as they can help parents make more appropriate decisions about the type of media that children use (para. 15). In Chapter 2, I discussed how certain screen-based shows and games can encourage the development of prosocial skills. As mentioned in Rideout et al. (2003) report, children are more likely to imitate prosocial behaviours that they observe than violent and aggressive behaviours. Therefore, it is important that parents and educators take proactive measures to ensure that their children are exposed to content that supports their development rather than hinder it.

In the previous section, I have connected my practice as an early childhood educator to the posits from theories reviewed, and the findings from the research described in Chapters 1 and 2. In the next section, I share the details of a presentation created specifically for parents of young children that contains information about how screen time relates to children’s social emotional development, as well as practical applications for parents to use to help support children’s development while using screen-based devices.

**Connections to Practice: A Presentation for Parents of Young Children**

To illustrate the meaningful connections that I have made from the research in my literature review to my practice as an early childhood educator, I have developed a presentation (see Appendix A) for parents. The aim of this presentation is for parents to use the information, strategies, and resources to help them make informed decisions about screen time in the early years, and support young children’s social and emotional development in a digital age. Although I have decided to tailor the presentation specifically for parents of young children, the content would also be of interest to early childhood educators. I have decided to develop a presentation mainly because of its accessibility. Although the presentation is formatted to be implemented with a group, to accommodate parents who could not attend the in-person presentation, I will
upload the presentation to my school website for parents to watch at their leisure. I felt that a presentation was appropriate for my work setting, as I can inform parents of the presentation date during my kindergarten open house as well as share the link to access the presentation through our online classroom community application. A benefit of developing a presentation is that it can be multimodal. I can welcome parents to come into the school for a formal presentation, invite them to watch the presentation from home, or simply print out copies to physically hand to parents who may be interested in the information but who lack access to the internet and cannot attend the presentation.

**Description of Presentation: “Supporting Children’s Social and Emotional Development in a Digital World”**

I estimate that the presentation will require a total time allotment of one hour per session, as it includes 19 slides and opportunities for reflection and group discussion. To accommodate parents’ busy schedules, I would plan to offer two after school sessions, one immediately following the school day at 4:00 pm and one later in the evening at 6:00 pm. I believe that two sessions would be sufficient, as the school that I work in has a small population with only one kindergarten class of up to 30 kindergartens. Although my current school population is small, this presentation could be adapted to meet the needs of larger schools or other early childhood settings. This would be possible by offering various sessions throughout the week, including weekend sessions for parents who may find weekends offer them more flexibility. The presentation could also be adapted to include voice over and uploaded on school board and child care centre websites to reach a larger population. During the first slide, I introduce myself and share the reasons why examining screen time use in the early years is important to me. During slides two and three, I define the key terms screen time and social emotional development and introduce the social and emotional learning competencies outlined by CASEL (2016). The fourth
slide asks parents to reflect on the screen time habits of both their children and themselves. The fifth slide shares the screen time recommendations set forth by the American Academy of Pediatrics (2016) and then Canadian Pediatric Society (2011). The sixth slide shares the possible positive social and emotional developmental outcomes of screen time, shares the positive outcomes. Slides seven through fourteen share information from the literature review, as well as examples from my practice, and I provide strategies for parents to use to support their children’s social and emotional development while recognizing the influence that screen time has on our society. The suggestions that I have shared include encouraging screen-free play, setting limits, turning off devices when they are not in use, choosing high quality programming, participating in the screen time, and being role adults. Slide fifteen recaps the strategies offered, and slide sixteen shares my final recommendations. The final two slides are concluding slides including, a slide on final reflections, a slide for comments, questions, and concerns to be heard, and the last slide provides parents with resources to further their learning (see Appendix A).

In sum, this presentation recognizes the role that screen-based devices plays in our society and describes examples and offers strategies that parents can use to both incorporate screen time into children’s lives while also supporting their children’s social and emotional development. The strategies that I make are both practical and straightforward and include sections on the importance of play without screens, settings limits on children’s screen time, how parents can role model good screen habits, the importance of parents actively participating in children’s digital play and the importance of previewing and restricting content. I also offer resources for parents to access to learn more about screen time in the early years and supporting children’s social and emotional development. These resources include the following, American Academy of Pediatrics (aap.org), Canadian Pediatric Society (cps.ca), commercialfreechildhood.org, healthykidshealthyfuture.org, and kidshealth.org.
In the next chapter, I draw conclusions based on the theories examined and the literature review, as well as discuss the limitations experienced throughout this project, and share next steps for future study and practice.
CHAPTER 4: CONCLUSIONS

In this final chapter, I reflect upon my literature review, as well as the connections that I have made to my own professional practice as an early childhood educator to address my guided questions posed in chapter 1. In the following section, I also share some of the limitations of my project, and propose ideas for future research and practice.

Reflections and Concluding Thoughts

The first guiding question that I posed was, “How does solitary screen time use relate to how young children are developing both socially and emotionally?” As I previously mentioned throughout this project, I am a firm believer in social play. Through my experience, observations, and prior education, I was aware of the wonderful benefits that play offers children, specifically for their social and emotional development. Through my investigation of the extant literature, my personal beliefs on the use of screen time in early childhood were affirmed. A large body of the research through studies, reports, reviews, and positional statements cautioned against children’s screen time use, as exposure to screen time limits social exchanges and play to occur, negatively influencing children’s impulse control, their relationships building skills, how they manage and express their own feelings (Frost, 2010; Murray & Murray, 2008). Excessive screen time use in early childhood may also affect children’s executive functioning skills (Radesky et al., 2014), and it has been connected to an increase in children’s aggression (Van Evra, 2004). Although the majority of the literature found, discussed the possible drawbacks of screen time exposure in early childhood, I was happy and relieved to find literature that shared the potential benefits of screen time on children’s social emotional development including the development of prosocial behaviours such as graciousness, friendliness, empathy, and cooperation (Van Evra, 2004). Screen time use can also increase children’s creativity and imagination, and, at the same time decrease aggression, and promote self-regulation (Van Evra, 2004).
question, “In what ways may parents influence children’s screen time use?” I learned that parents play a significant role in their child’s screen time use, not simply by providing the screen-time devices to their children, but also in terms of parents’ ways of using screen-based devices significantly influence children’s screen time habits (Rideout et al., 2003). I have understood that parents need to reflect upon their own screen time habits, as children are observing and learning from them. It is important for parents to dedicate times throughout the day that are screen-free for everyone, including themselves, to encourage conversations and social exchanges to occur.

Parents also play a significant role in the amount of screen time exposure for their children; this includes both direct and indirect exposure through background screen time. Moreover, I have realized that parents need to be cognisant of the negative effects that background television can have on children’s social interactions. Therefore, when screen-based devices are not in use, they could be turned off (Rideout, et al., 2003). With the influence that violent screen-based media has on children’s expression of aggression, it is critical that parents are mindful of the content that their children are exposed to. Although my guiding question specifically asks about the parents’ role in their children’s screen time use, educators can also influence children’s screen time habits, as well as the type of content that children are observing. By sharing my own experience with neglecting to preview programming for my students, I illustrated how easy it is to put one’s trust in someone else’s ideas of what is age appropriate content for our young children, and how important it is to know what your children are watching.

When considering my third and final guiding question, “In what ways may parents use screen time devices to support children’s social emotional development? I learned that although the drawbacks of screen time use in early childhood are apparent, and that screen time cannot replace the benefits of socialization and play, there are some positive outcomes on children’s social and emotional development through their screen time use. At the same time, it is important
that caregivers, both parents and educators become active participants in their children’s screen time (Wooldridge & Shapka, 2012). Although it may seem that their role in their child’s play is quite limited, and that screen time is more of a solitary act, this should not be the case. Caregivers can engage with their children by asking questions, playing with their child, taking turns, teaching them and learning from them, and using screen-based devices in ways that promote more social participation (Wooldridge & Shapka, 2012). By teaching children how to use the camera or video recorder on tablets, for example, this can open up more possibilities for discussion and social exchanges to occur. In my experience, many children love to look at and listen to digital stories; therefore, it is important for caregivers to treat digital stories the same as they would traditional books. I encourage parents and educators to sit with your children and engage in conversations about the stories to bring the typical solitary digital story to a more meaningful social exchange. Parents and educators can also encourage children’s social and emotional development through screen time, by choosing programming that promotes prosocial behaviours (Mares & Woodard, 2010). Through the literature review, I learned that some programming through screen time can offer children role models and children are more likely to mimic the prosocial behaviours such as empathy and cooperation that they observe through screen time — rather than violent and aggressive behaviours (Rideout et al., 2003; Van Evra, 2004).

Overall, in combination of my review of the literature along with my professional connections, my project has shown that screen time cannot replace the benefits of play; however, it can be used to effectively support children’s social and emotional development. This is possible by caregivers, both parents and educators, actively engaging in children’s screen time use and providing programming that encourages prosocial behaviours.
Limitations and Recommendations for Future Research and Practice

This project’s focus was limited as my project focused only on screen time use in the early years, and did not take into consideration the influence that screen time can have on children older than six. This project is also limited by the developmental areas in which I chose to examine. My focus was solely on how screen time is related to children’s social and emotional development, neglecting to examine any possible relationships that may occur between screen time and other developmental domains including physical or cognitive development. A further limitation to this project, was the dearth in the literature that investigated the benefits of screen time on children’s social and emotional development. The majority of the literature that I identified, cautioned against screen time use and studied—or reflected upon—the negative effects of screen time use in the early years. Finally, through my investigation of the extant literature on screen time and social emotional development, I found an abundance of research on television use and early childhood, but my research findings were limited when it came to other types of screen-based devices including tablets and smartphones.

Recommendations for Future Study

Drawing from the limitations I identified through my review of the literature, I believe that it is critical that future research examines how different screen-based devices influence children’s social and emotional development, as children are beginning to have access to a vast array of screen-based devices while at home and at school. I also recommend future studies examine the long term effects of screen time on children’s social and emotional development. Television is not the only source of screen time for children, as screen time has become more accessible, affordable, and portable through the inclusion of hand held screen-based devices, especially smartphones. Understanding the long term effects of such devices on children’s social and emotional development would be beneficial in creating specific age and time exposure
recommendations for screen-based devices that are supported by long term data. My final recommendation is that additional research be conducted on the role of parents in children’s screen time use, especially parents’ use of smartphones. I found that research on this topic was quite limited, and it would be beneficial for parents to learn about whether or not being an active participant in their children’s screen time is as effective as playing without screens for supporting children’s social and emotional development.

Recommendations for Practice

Throughout this project, in both the theories that I drew upon as well as based on the literature reviewed, it became very apparent to me that children need ample time to participate in various types of play. I strongly recommend both parents and educators to ensure that they are offering children time for uninterrupted screen-free play. Although screen-based technology appears to be an important part of many people’s lives, it is critical that children still have time to explore the three-dimensional world and socialize with both adults and other children. It is recommended that screen time is used in meaningful ways to support children’s development. I recommend that parents and educators make conscious efforts to actively engage with their children and participate in their children’s screen time use. This not only encourages social and emotional development, but it provides parents and educators the opportunity to observe what their children are watching during their screen time use.

In sum, I believe that social play —one that is free from screens— is a critical component to children’s social and emotional development. However, if parents and educators were to choose to incorporate screen time into their children’s lives, it is important that they understand the significant role that they play in how screen time exposure may influence their children’s development. At the same time, in order to gain any real benefits from screen time, it is
important that parents and educators are role models with their own screen time habits, in addition to being active participants in their children’s screen time use.

References


Welcome parents to my presentation entitled: Supporting Children’s Social Emotional Development in a Digital World. I have allotted approximately one hour to complete this presentation. To begin, I would like to share a bit about myself and this project. My capstone project investigates relationships between children’s screen time use and their social and emotional development. This project is very important to me because as a registered early childhood educator and an Ontario certified teacher, I observe the benefits of play on children’s social and emotional development on a daily basis within my kindergarten classroom. With the influx and accessibility of screen-based devices and programs targeted for young children, I felt concerned about how this shift from social play to solitary screen time could be influencing children’s development. I pursued this topic because I wanted to not only educate myself on the drawbacks and benefits of screen time, but I also wanted to be able to provide a forum to share information and strategies with parents on how to support their children’s social and emotional development while recognizing that screen time is a significant part of our society.

Social emotional development is defined by children’s ability to both manage and express their own emotions, but also their ability to make appropriate decisions, relate to others and build meaningful relationships (Cohen, Onunaku, Clothier & Poppe, 2005). The social and emotional learning experiences that young children have, set the foundation for a variety of social and emotional competencies and are outlined in detail through the Collaborative for Academic, Social, and Emotional Learning. The five core competencies for social and

emotional learning outlined by CASEL (2016) include self-awareness, self-management, social awareness, relationship skills, and responsible decision making skills.

The Canadian Pediatric Society (2012) defines screen time as the amount of time spent using any screen-based device. This includes, but is not limited to televisions, iPads, tablets, video games, smartphones, computers, and laptops.

Prior to exploring the literature on screen time in the early years, I think it is important that we take a moment to reflect on our current screen time practices, not only what we offer our children, but also reflect on our own use of screen-based devices. By reflecting upon our own practices, we can appreciate as well as compare and contrast our current beliefs about screen time and our children’s development to that of the recommendations and findings set forth by reputable pieces of literature.
Both the Canadian Pediatric Society (2011) and the American Academy for Pediatrics (2016) have offered policy statements regarding their recommendations for limiting children’s screen time exposure.

<table>
<thead>
<tr>
<th>Screen Time Recommendations</th>
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<tbody>
<tr>
<td><strong>Canadian Pediatric Society (2011)</strong></td>
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<tr>
<td>Children under 2 years old</td>
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<tr>
<td>The CPS (2011) discourages any screen time exposure before the age of two.</td>
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<tr>
<td>Children over 2 years old</td>
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<tr>
<td>Screen time should be limited to 1 to 2 hours a day to high quality programming only</td>
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| **American Academy of Pediatrics (2016)** |
| In 2016, the AAP modified their recommendations from completely discouraging screen time before the age of two to including some screen-time allowances including video chatting and high-quality programming. |
| Children under 18 months old |
| Screen time should be strictly limited and only include live video chatting |
| Children 18 months to 2 years old |
| Only high-quality programming should be introduced, and parents should actively participate with their children during this screen time |
| Children 2 to 5 years old |
| Screen time should be limited to 1 hour per day of high-quality programming. Parents should co-view with their children to encourage the screen time to be more meaningful |

**Positive Social and Emotional Outcomes Associated with Screen Time**

Although there is ample evidence that cautions the use of screen time in early childhood, there is also some evidence that supports the use of screen time for supporting children’s social and emotional development. In moderation and through programming that promotes prosocial behaviours, screen time has been found to increase children’s generosity, cooperation, friendliness, and increases children’s ability to verbalize their feelings and empathize with others as well as decrease aggression (Mares & Woodard, 2010; Van Evra, 2004). Screen time has also been found to improve children’s creativity and imagination (Van Evra, 2004).
With the influx of screen-based devices in our children’s lives, their time for play is greatly impacted. This depletion in play is called “play deprivation” (Frost, 2010, p. 6). Play deprivation due to over use of digital devices has shown to impact children’s social and emotional development. Play deprivation has been associated with many physical and emotional illnesses, including “depression, violence, diminished impulse control, addictive predilections, low school achievement, and social abnormalities” (Frost, 2010, p. 6).

Play is a fundamental part of children’s lives. Its value and importance is recognized worldwide and is identified as a fundamental right of the child by the United Nation’s (1959). It is incredibly important that we ensure that our children are participating in various forms of play throughout their day including uninterrupted child-directed play as well as outdoor play. Through play, specifically social play, children learn about their feelings and experience a wide range of emotions. Children also develop a multitude of social skills through play including self-regulation, empathy, cooperation, turn taking, conflict resolution, as well as learning to follow rules, and understand limits. Play also helps children build their self-confidence to take risks, learn how to solve problems and helps children develop impulse control (Guernsey, 2007; Macintyre, 2012; Sumaroka & Bornstein, 2007).
To support your child’s social and emotional development through play, I encourage you to make screen-free play a significant part of your child’s daily routine. Join in your child’s play and facilitate and plan for opportunities for your child to engage in play with their peers and siblings. The social exchanges that children have when they play provides them with a wide range of social emotional learning opportunities. Some social and emotional skills that children can acquire through social play include, self-regulation, empathy, cooperation, turn taking, they also can learn how to follow rules and resolve conflicts (Guernsey, 2007; Macintyre, 2012; Sumaroka & Bornstein, 2007). From my experience, screen-based devices can take away from children’s desire to socialize with their peers. In my classroom, for example, I have two IPads for the children to use. When they were first purchased for my class, I allowed the children to use them as they wanted to during our free-play time. After observing my students with the IPads, I noticed that much of their time spent using the IPads was solitary. The IPads were causing arguments between my students and they seemed to be causing more harm and frustration than good. Since then, IPad time is very limited in my classroom. When I do allow my students to use the IPad, I try to make their use more meaningful by choosing multi-player games and using them as part of my learning centres.

I encourage you to provide your child with ample time to play in the outdoors. Outdoor play provides children with opportunities to try new things and take risks. As British psychologist, Tanya Byron said “nothing can replace what children gain from the freedom and independence of thought they have when trying new things out in the open” (Byron, n.d., as cited in Greenfield, 2015, p. 22). Not only does outdoor play promote risk taking, but from my experience, it also allows children to burn excess energy and release tension that they may be feeling to better cope with their emotions.

Also, providing children with opportunities for socio-dramatic play is incredibly beneficial for children’s social emotional development. Socio-dramatic play allows children to develop their self-regulation skills, learn about their feelings, develop an understanding of perspective and develop empathy (Elias and Berk, 2002; Vygotsky, 1966). Within my classroom, socio-dramatic play is a very important aspect of my student’s free play. During our free play time, children have open access to play in our dramatic centre. This centre is changed often to various settings including, stores, doctor’s offices, garden centre, home, and restaurant. I thoroughly enjoy observing my students in this play, as I often find myself learning quite a bit about my students and their families through their play. Socio-dramatic play provides children with an excellent opportunity to role play and learn about perspective to help
develop their empathy for others’. Some ways that you can promote socio-dramatic play at home is to engage in pretend play with your child by role playing acting out different stories and scenarios, participating in pretend play by creating a dramatic centre such as a kitchen or a doctor’s office for your child to play in, within your own home.

Follow your child’s lead. Encouraging child-directed play, where children lead the play is also highly recommended. Children’s engagement in free play, has been found to increase their creativity and empathy for others and is often used as an emotional outlet for children to work out feelings of aggression and anger (Miller and Almon, 2009). I feel that I learn the most about my students when I am an observer of their play. I am always amazed by the creativity and imagination that my students have when they are allowed to lead the play. In my experience, the free play that I offer my students is by far the most loved part of the school day. It is a time when children get to express not only their interests, but also how they are feeling. I can learn quite a bit about how my students are feeling that day by what they choose to play with, who they choose to play with, and how they interact with other children and the environment. I highly recommend that parents not only encourage ample time for free-play at home, but to also join in the play and take the time to observe your child in their play, as it may surprise you what you end up learning about your child.
Setting screen time limits is an excellent strategy that parents can use to support their children’s social and emotional development. You are encouraged to follow the American Academy of Pediatrics (2016) and the Canadian Pediatric Society’s (2011) recommended time restrictions for screen time use. Excessive screen time has also been found to impact children’s ability to self-regulate. Infants and toddlers exposed to excessive amounts of screen time have been found to lack development in self-soothing, modulating their emotions, and falling and staying asleep (Radesky, Silverstein, Zuckerman & Christakis, 2014). In my experience, children who have unrestricted access to screen-based devices in their bedrooms are often more tired while at school than children without televisions in their bedrooms. I have observed how children’s screen time use within their bedrooms, specifically at night, influences their social interactions while at school. They are often too exhausted to actively participate in our daily activities because they were up late playing on their phones, watching videos on their tablets or watching movies on their televisions. Having screen-based devices within children’s bedrooms makes regulating their screen time use very difficult. Therefore, I strongly encourage you to remove all screen-based devices from your children’s bedrooms, including smartphones. The Canadian Pediatric Society (2011) recommends that screen-based devices should only be used in common areas. This is to encourage more socialization to occur during screen time and it helps parents monitor the type of programming that their children are being exposed to, as well as monitor the amount of screen time that children are participating in.
Although it may seem that no one is watching the TV, indirect background screen time exposure is a contributing factor in children’s daily screen time exposure. Background screen time can influence children’s social and emotional development as it can be quite distracting and take away from parent-child interactions (Radesky & Christakis, 2016). A simple strategy to help limit your child’s screen time exposure is to turn off any screen-based device that is not in use.

The American Academy of Pediatrics (2016) and the Canadian Pediatric Society (2011) both caution the adverse effects on children’s behaviour including impulsiveness, aggression, and restlessness from viewing violent content. Limiting children’s exposure to video games, videos, and television shows that are violent in nature is very important for supporting children’s social and emotional development (Manganeloo & Taylor, 2008; Van Evra, 2004).

The content of the programming that children are exposed to can have significant implications on children’s social and emotional development. There is a considerable amount of evidence that links excessive screen time exposure to an increase in violent behaviours in young children.

To help support your child develop prosocial behaviours from their screen time use, it is encouraged that you take the time to preview what your children are watching during their screen time to ensure that the content is age appropriate but also that it is of high quality and is both educational and promotes prosocial behaviours. Children are more likely to mimic the prosocial behaviours that they observe during screen time than those of violent and
aggressive behaviours; therefore, it is imperative that children have access to programming that supports their development rather than hinders it (Rideout, Vandewater & Wartella, 2003).

Previewing what your child is exposed to can definitely help ensure that they are watching both age-appropriate and high quality programming. Although a program may state that it is recommended for your child’s age group, it can be difficult to trust someone else’s judgement of what is appropriate for your child to watch. I have experienced this myself, as I was showing my class an online story from our school’s e-book subscription catalogue. After watching the story that I intended to show my class, the students asked if we could watch another one before recess. It was near Halloween and the story they chose was Halloween themed and about a cute cartoon monster. I agreed to let my students watch it, even though I had not previewed it, as it was posted for children ages 3 to 5 and it was in the same section as the other book they had just watched. After only a few moments of it being on, I regretted the decision. I felt that it was not appropriate content and although some of my students enjoyed it and thought it was funny, others were scared by it. I learned that day the importance of always previewing what my students watched and have continued to practice this since.

You may feel apprehensive about joining in your child’s play, especially during play with screen-based and electronic devices. However, I encourage you to be an active participant in your children’s screen time use. I also encourage you to turn off your smartphone when participating in play with your child, as smartphones are very distracting and can take away from the meaningful interactions that can occur between you and your child.

Some strategies to help you engage with your child during their screen time use include:

Initiate conversations with your child. While watching an interactive story on a tablet, for example, you are encouraged to treat the story like a traditional book. Engage with your child by pointing to the graphics and conversing with your child throughout the story. By actively engaging with your child during screen time, you are supporting your child’s social and emotional development by making the experience more meaningful and interactive (Sumaroka and Bornstein’s, 2007). When I share an online story with my class, I try to encourage it to become a social event by asking for predictions of what the story could be...
about, stopping the story and asking my students’ questions about what we heard and what they see.

Encourage turn taking by playing high quality educational games with your child or by taking turns choosing the videos that you watch together.

Demonstrate how to play or use the device to make the experience more interactive. For example, I try to encourage my students to use screen-based devices in meaningful ways, so I taught them how to use the camera and video recording devices on the IPads. Teaching your child how to use the camera and video recording devices may encourage your child to engage with you and other people in their digital play, as they become excited to show off their photos and videos.

Connect the screen time to real world experiences. While watching a show, for example, you may find opportunities to connect the content of the show to your child’s own experiences. You can use this opportunity to discuss your children’s feelings about certain topics and experiences that they have had or you may wish to connect the content to your child’s current interests. For instance, if your child is particularly interested in farm animals, look for programs that can help further your child’s learning about such animals. To take this learning experience even farther, you could plan to then visit a farm, allowing your child the opportunity to build connections to what they saw on the screen to what they can see in the real world.

In my classroom for example, if my students become very interested in a topic or maybe something that they have read, we often will go onto the Smart Board and do “research” together as a group to learn more about it. This helps make their digital experiences more interactive and meaningful. One example of how I used screen-time to connect to my students’ interests occurred seven years ago. I had a student who was very interested in hawks. I did some research and found an online webcam from Cornell University that live streams a pair of red tail hawks. My class was fascinated by this. We were able to watch the hawks make their nest, lay their eggs, the babies hatch from their eggs and we watched them grow and then one day fly off on their own. Seven years later, we are still watching the same two hawks each and many of my former students still talk about the hawks and watch them now with their families at home.
After the Post-its are all posted, I will go read them out to the larger group.

Finally, it is imperative that you take the time to reflect on your own screen time habits, as children learn by watching us and what we do. Screen-based devices can be incredibly distracting, not just for your child, but also for you and can take away from opportunities for you and your child to engage with one another. Try to plan for screen-free time throughout your day. An example of this would be to make dinner time screen-free for the whole family. Put all devices away, including your smartphone and ensure that this part of your day is completely dedicated to having meaningful social exchanges with your child.
In sum, I believe that social play—one that is free from screens—is a critical component to children’s social and emotional development. However, if you do choose to incorporate screen time into your children’s lives, it is critical that you understand that in order to gain any real benefits from screen time, it is important that you become both a role model and active participant in your child’s screen time use.

Discuss in small groups and then come back and share thoughts as a whole group.
During this time, I will take time to listen to comments, answer any questions, and address any concerns that parents may have about the presentation and about supporting their children’s social and emotional development while incorporating screen time.

Resources to Further Our Learning

- Canadian Pediatric Society
- American Academy of Pediatrics
  - http://www.aap.org
- Commercial Free Childhood
  - www.commercialfreechildhood.org
- Nemours. Children’s Health System
  - http://www.healthykidshealthyfuture.org