

THE EFFECTIVENESS OF STORYBOOKS READINGS ABOUT EMOTIONS FOR  
IMPROVING SOCIAL AND EMOTIONAL LEARNING OF YOUNG CHILDREN: AN  
INTERVENTION CASE STUDY

By

MERVE KÜBRA ÖZDEMİR

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To my Mom

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## LIST OF ABBREVIATIONS

ASD	Autism Spectrum Disorders
EVA	Emotion Vocabulary Assessment
PPVT-IV	Peabody Picture Vocabulary Test-IV
SSI	Second Step Interview

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As the number of children diagnosed with Autism Spectrum Disorder (ASD) increases, the demand for evidence-based practices aimed at improving social skills is also rising. Many types of research have examined interventions to improve children's social skills. However, the gap exists in research regarding the use of naturalistic interventions. One promising intervention that occurs regularly in early childhood classrooms is book reading. To that end, this study examines the use of children's literature for improving social and emotional skills for a small group of children, including children described by their teacher as having social skills deficits, including characteristics associated with ASD. The effectiveness of this intervention method was measured by using pre- and post-assessments of emotion knowledge and problem solving, and anecdotal records. The results from this study indicate that story book readings have remarkable effects on children's emotion vocabulary knowledge and emotion recognition abilities. In addition to these findings, improvements in children's social behaviors were observed. The findings suggest that planned story book readings about emotions is an effective way to improve social and emotional development of children, especially emotion vocabulary knowledge and emotion recognition abilities.

## CHAPTER 1 INTRODUCTION AND LITERATURE REVIEW

Autism Spectrum Disorder (ASD) is a disorder in which children's abilities to communicate and interact socially with others are impaired (Lemer & Mikami, 2012). Children with ASD often lack the social skills necessary to interact in meaningful ways with their typical peers. Numerous studies have been conducted with children with ASD examining the effectiveness of social skill programs. Researchers (for example, Bellini & Akullian, 2007; Eldevik, Hastings, & Hughes, 2011; Lemer & Mikami, 2012; Shultz, 2006; Wang, 2011) have studied the effectiveness of social skill interventions for children with ASD. A consensus from the research previously conducted suggests that social skill interventions can be beneficial for children with ASD.

In order for social skills programs to be truly effective, they must help children with ASD interact with others in normalized settings. Reading stories aloud to children is a commonly used strategy for helping all young children to improve their language skills; in particular, intentional reading strategies such as storytelling and repeated reading, have been found to be particularly beneficial (Wang, 2011). In previous studies, reading interventions have been found to be useful to support language and communication development of children with ASD (Laushey & Heflin, 2000). However, little research has examined the effectiveness of reading interventions to support the social and emotional development of children. In particular, reading interventions to improve the emotional understanding of children with and at risk for ASD have not been well researched. Hence, this study focuses on the effects of a dialogic reading intervention using stories about emotions as an intervention method for a group of children, including children identified by their teacher as at risk for ASD and other developmental disorders.

## **The Importance of Social and Emotional Skills/Behaviors**

Social and emotional skills have enormous effects on people's professional, social and even family lives. Imagine a business man who does not know how to manage topics in a meeting, a friend you have just met does not know how to initiate a conversation, or perhaps a mother who does not pay attention her children's requests or problems. All these situations are hard to imagine because social and emotional skills are so intrinsic to the needs of a community of people living together.

### **Why Improving Social and Emotional Learning of Young Children Is Important**

Improving social and emotional skills and knowledge of children not only supports their cognitive development, it also supports their academic knowledge (Greenberg et al., 2003). Research suggests that focusing on both academic and social and emotional content has a greater impact on children's achievement at school (Blair & Diamond, 2008). Fitzgerald and Edstrom (2006) indicated that from preschool to middle school, academic achievement is associated with social skills. In studies in which social and emotional instruction was provided to children, positive outcomes were found in both academic performance and social behaviors (Durlak et al., 2011; Izard et al., 2001; Greenberg et al., 2003).

On the other side, fostering social and emotional skills of children in early ages is even more beneficial for further academic success than similar instruction later in childhood because young children acquire the foundational social emotional skills more easily (Baker, 2013). Given this research, Denham (2006) suggests that all preschool teachers should focus on supporting the social and emotional learning of children.

### **The Milestones of Social and Emotional Development: Emotional Competence**

Children start developing social and emotional skills since their birth. Even until producing first word verbally, they are able to show their emotional understanding with using

gestures and making sounds. Until three years old, children's development in emotional competence will be enough to understand feelings of their family members only from their facial gestures. In age three, social emotional development becomes more important because children start to engage in different activities with their peers and teachers and to contact people other than family members.

Social and emotional learning supports children's competency in emotions. Emotional competence is a term that includes emotion regulation and emotion knowledge. More specifically, emotion knowledge includes mastery with emotion vocabulary (Denham et al., 2003). Children who have knowledge in emotion vocabulary are most likely able to label emotions, talk about emotions and realize the differences between emotional states (Joseph & Strain, 2003). As a part of emotion literacy, emotion vocabulary knowledge supports children to recognize other's emotions, understand the reasons behind experiencing these emotions (Bretherton et al. 1986; Joseph & Strain, 2003). In addition, emotional literacy supports children's development in self-emotion regulation (Kopp, 1989). Research has been shown that proficiency in emotion vocabulary increased children's acceptance rate among their peers and children's self-control skills (Crick & Dodge, 1994; Fabes et al., 1994). Greenberg (1995) stated that it is possible to increase children's knowledge of emotion vocabulary which they are able to label and define emotions.

### **How Literacy Supports the Emotional Development of Children**

Reading books to young children is a good way to start teaching children emotion words. Emotional literacy is the capacity to identify, understand, and express emotions in a healthy way. Emotional literacy also includes the capacity to recognize, label, and understand feelings in self and others. It is a prerequisite to the development of more advanced social skills and for the continued maturation of emotional self- regulation.

## **Autism Spectrum Disorders**

Autism Spectrum Disorders (ASD) is a complex developmental disorder that can cause problems with thinking, feeling, language and the ability to relate to others. It is a neurological disorder, which means it affects the functioning of the brain (American Psychiatric Association [APA], 2013). It affects children's abilities to communicate and socially interact with others to the extent that it leads to impairment (Lemer & Mikami, 2012). ASD is a pervasive neurodevelopmental disorder characterized by impairments in social communication and restricted, repetitive patterns of behavior, interests or activities (American Psychiatric Association [APA], 2013). Each of these clinical features may vary from mild to severe, and they often present differently among individuals. The effects of ASD and the severity of symptoms are different in each person (American Psychiatric Association [APA], 2013). Consequently, the term "spectrum" refers to the continuum of developmental impairment among these disorders (Miller, 2006). Although, in some individuals, the deficits in some areas may be relatively mild, the combination of deficits associated with ASD is pervasive and typically persists throughout the individual's life (Nikopoulos & Keenan, 2007).

Over the past 20 years rates of ASD have dramatically increased, making this disorder one of the fastest growing developmental disabilities in the United States (Kabot, Masi, & Segal, 2003). About one in 68 children is diagnosed with ASD according to the Centers for Disease Control and Prevention. This increase has placed greater demands on educators to provide school-based services for these students. Moreover, in line with IDEA, there has been a push towards mainstreaming students with disabilities and educating them in the general education setting. Further, because the severity of deficits ranges from severe to mild, the importance of incorporating strategies for addressing and preventing milder forms of ASD has gained considerable attention in recent years.

## **Characteristics and Diagnosis of Autism Spectrum Disorders**

ASD is usually first diagnosed in childhood and is three to four times more common in boys than in girls. ASD is most often a lifelong disorder, though there are more and more cases of children with ASD who eventually function independently, leading full lives. ASD differs from person to person in severity and combinations of symptoms. There is a great range of abilities and characteristics of children with ASD — no two children appear or behave the same way. Symptoms can range from mild to severe and often change over time. Characteristics of ASD fall into three categories.

**Communication problems:** including difficulty using or understanding language. Some children with ASD focus their attention and conversation on a few topic areas, some frequently repeat phrases and some have very limited speech.

**Difficulty relating to people, things and events:** including trouble making friends and interacting with people, difficulty reading facial expressions and not making eye contact.

**Repetitive body movements or behaviors:** such as hand flapping or repeating sounds or phrases.

Many children with ASD are attentive to routines and sameness and have difficulty adjusting to unfamiliar surroundings or changes in routine. Many people with ASD have normal cognitive skills, while others have cognitive challenges. Some are at greater risk for some medical conditions such as sleep problems and seizures.

Chawarska and Volkmar (2002) provided more detailed information about the early communication characteristics in ASD which include limited attention to speech; including failure to respond to name, deficits in joint attention skills, reduced rates of communication, limitation in range of communicative intentions to those whose function is to get others to do or not do things for them (requests and protests), failure to compensate for lack of language with

other forms of communication; particularly the more conventional forms, such as pointing or showing, deficits in symbolic behaviors apart from language, and in imitation of vocal and other behaviors.

Pragmatics, or appropriate use of language in social situations, is, of course, the most prominent aspect of communicative deficit in this population. Children with ASD are less likely than those with typical development to initiate communication, particularly with peers. Overall rates of communication are very low, even in children who speak. These children show reduced interest in language spoken to them; they are less likely to respond in a reciprocal fashion to the communicative bids of peers and more likely to produce self-directed, noncommunicative speech. Paul et al. reported that the following areas of pragmatics were most consistently impaired in speakers with ASD: use of irrelevant detail, inappropriate topic shifts, topic preoccupation/perseveration, unresponsiveness to partner cues, lack of reciprocal exchange, Inadequate clarification, Vague references, Scripted, stereotyped discourse.

### **Social and Emotional Skills in Children with Autism Spectrum Disorders**

One of the best-known characteristics of ASD since its first description in 1943 is the difficulty with social interactions. Even individuals with ASD who have above-average intelligence and do not possess communication deficits experience significant challenges in processing social information and demonstrating appropriate social behavior (Miller, 2006). Therefore, while great differences exist among individuals with ASD, one of the few shared features is a pervasive deficit in socialization (Laushey & Heflin, 2000). Accordingly, social deficits have recently been suggested to be the defining feature of ASD (e.g., Cotugno, 2009; Laushey, Heflin, Shippen, Alberto, & Fredrick, 2009; Sansosti, 2010; Shulka-Mehta, Miller, & Callahan, 2010).

Early signs of ASD are usually not abnormal actions, but rather the absence of normal behavior. As infants, individuals who are eventually diagnosed with ASD are less likely to respond to their name, make eye contact, or demonstrate spontaneous imitation (Anderson, Oti, Lord, & Welch, 2009). By approximately 18-months, children with ASD typically perform significantly lower on measures of eye gaze shift, gaze/point follow, the rate of communicating, acts for joint attention, and use of conventional gestures (Volkmar & McPartland, 2014). The First Words Project investigated early indicators of ASD by examining videotaped communication samples of children who were two years of age and screened positive on the initial broadband screen. Results indicated that four “red flags” distinguished children with ASD from developmentally delayed and typically developing children. These characteristics were a lack of pointing, not playing with a diverse range of toys, lack of responding to contextual cues, and the absence of consonants in their vocalizations (Wetherby, Watt, Morgan, & Shumway, 2007).

As early as preschool, children with ASD can be reliably differentiated from typically developing peers as a result of their social communication deficits (Rao, Beidel, & Murray, 2008). These children are less likely to engage in symbolic play, communicate for social interactions, use toys appropriately, and imitate actions (Wetherby et al., 2007). They are also less likely to demonstrate shared enjoyment or direct facial and vocalizations toward others (Lincoln, Searcy, Jones, & Lord, 2007). Further, as these children fail to make initiations, they miss the learning opportunities that normally follow such displays such as “look” and “what’s that?” Thus, they become limited to the information that others explicitly provide, and they miss valuable learning opportunities that accompany the ability to seek out information (Loftin, Odom, & Lantz, 2008). In addition, their detachment from those around them discourages others

from attempting to interact with them, further lessening their opportunities for learning (Liber, Frea, & Symon, 2008).

During elementary school, significant social relation problems are common with many children with ASD experiencing problems initiating and maintaining friendships (Rao et al., 2008). Children with ASD interact with peers for limited (if any) periods of time, are less likely to initiate/respond to social initiations from peers, and spend more time playing alone, in comparison to typically functioning peers (McConnell, 2002). As social demands increase, the limited social awareness of these individuals becomes more apparent through their difficulty in understanding and expressing emotions and nonverbal social cues, as well as their deficits in the social aspects of language and their skill in initiating and responding to social overtures (Anderson et al., 2009). These individuals often engage in behaviors that are commonly described as awkward or inappropriate. By adolescence, their lack of social skills can result in rejection and bullying by their peer group (Rao et al., 2008). Persistent social impairments in adolescence and adulthood may increase individuals' risk for psychiatric problems such as depression, anxiety, and loneliness (Anderson et al., 2009). Further, adolescence presents additional challenges for individuals with ASD as preparations must be made for their transition to adulthood. Thus, while specific social symptomatology varies widely across the spectrum, individuals with ASD are described as lacking the foundational skills for successful interpersonal relationships (Seltzer et al., 2003).

According to Elliott and Gresham (2008), social skill difficulties may result from acquisition or performance deficits. A deficiency in acquisition means lack of a specific behavior/ skill or having the skills which are necessary to present behavior but not using them consistently (Bellini, Peters, Benner, & Hopf, 2007b, page 104). Elliott and Gresham (2008)

propose that acquisition deficits are the result of inadequate instruction, practice, or reinforcement. Accordingly, to address this lack of knowledge, it is recommended to apply instructional strategies that encourage learning and applying new skills (Bellini et al., 2007b).

On the other hand, some social and emotional problems occur when children have learned the skills but fail to use them in social situations. Decreasing social skills performance deficits involves creating opportunities that encourage children to use the positive skills that they have acquired, for example through antecedent-based strategies (e.g., peer-mediation, cueing and prompting, and pre-correction) as well as interventions that reinforce the positive behaviors, such as consequence based strategies (e.g., reinforcement, contingency systems, and behavioral contracts). Thus, when providing social skills instruction, it is important to understand the nature of the social skills problems so that the instruction can directly address the difficulty (e.g., Bellini et al., 2007b; Sansosti, 2010).

**Empathy and emotion recognition.** Children with ASD have major difficulties in recognizing and responding to emotional and mental states in others' facial expressions. Such difficulties in empathy underlie their social-communication difficulties that form a core of the diagnosis. People with ASD have social-communication difficulties alongside circumscribed interests ('obsessions') and a strong preference for sameness and repetition (APA 1994). Underlying these characteristics are difficulties understanding the emotional and mental states of others (Baron-Cohen 1995). Individuals with ASD have difficulties recognizing emotions from facial expressions, vocal intonation, body language, separately (Hobson 1986a,b; Yirmiya et al. 1992; Baron-Cohen et al. 2001a,b) and in context (Klin et al. 2002; Golan et al. 2008). Although some individuals with ASD recognize basic emotional expressions (Baron-Cohen et al. 1993;

Grossman et al. 2000), difficulties in identifying more complex emotions persist into adulthood (Baron-Cohen et al. 1997, 2001a,b; Golan et al. 2006).

The emotion recognition difficulties are in part the result of altered face processing (Klin et al. 2002; Dawson et al. 2004), which itself may be due to a failure to interpret the mentalistic information conveyed by the eyes (Baron-Cohen et al. 1997). Others' facial expressions may also be less intrinsically rewarding. Children with ASD show reduced attention to faces and to eyes in particular (Swettenham et al. 1998). The result of this reduced experience with faces is that children with ASD thus do not become 'face experts' (Dawson et al. 2005). For example, while the typically developing brain shows an electrophysiological response to upright faces called the N170 waveform, the autistic brain shows a reduced N170 (Grice et al. 2005).

**Systemizing.** In contrast to their difficulties in emotion recognition, individuals with ASD have intact or even enhanced abilities in 'systemizing' (Baron-Cohen 2002, 2006). Systemizing is the drive to analyze or build systems, allowing one to predict the behavior of the system and control it. Systems may be mechanical (e.g. vehicles), abstract (e.g. number patterns), natural (e.g. the tide) or collectible (e.g. a library classification index). The 'obsessions' or narrow interests of children with ASD cluster in the domain of systems (Baron-Cohen & Wheelwright 1999). These include vehicles, spinning objects and computers, all of which are attractive to individuals with ASD. At the heart of systemizing is the ability to detect patterns or rules of the form 'if a, then b'. The systemizing theory of ASD relates this affinity to their systematic and predictable nature.

### **Research-Based Social and Emotional Skill Interventions for Children with Autism Spectrum Disorders**

Social skill interventions can be a very important aspect of a child's curriculum and intervention plan, especially for those with ASD. Children with ASD usually have difficulties

communicating with their peers and family members, they show difficulties with social cues, communicating, processing information, and maintaining or attaining social relationships (Shultz, Kroeger, & Newsom, 2006; Wang, Cui, & Parrila, 2011). Social difficulties are the most handicapping feature of ASD (Rogers, 2000). It has been stated in research that ASD has a “triad of impairments.” These impairments include social interactions, communication deficits, and stereotypical behaviors (Rose & Anketell, 2009). Children with ASD (ASD) display deficits in social skill interactions.

Initiating, having verbal exchanges, and reciprocal play are imperative social skills (Lemer & Mikami, 2012). A lack of these skills has shown that children with ASD have a hard time dealing with anxiety (Bellini, 2006). Social skill functioning for children with ASD has been researched and shows that there is a need for social skills in children with ASD (Bellini, Peters, Benner, & Hopf, 2007). Hoyson and Strain (2000) examined the need to embed social skills intervention within the general context of long-term interventions and found positive outcomes from social skill interventions over time.

Many different interventions have been conducted with children with ASD and children with ASD have shown responsiveness to a variety of intervention strategies. These interventions include, peer-mediated groups and peer tutoring (Rogers, 2000). While a number of researchers have examined other interventions (e.g., Early Intensive Behavioral Intervention (EIBI), video modeling, skill streaming, peer-mediated groups, and direct teaching), most of these interventions and the corresponding research have been conducted in specialized settings (Eikeseth, 2009; Eldevik, Hastings, Hughes, Jahr, Elkeseth, & Cross, 2010; Rogers & Vismara, 2008). These specialized settings include therapy centers or inpatient centers. As stated in Eikeseth, Eldevik, and Smith (2002) “studies have revealed that intensive, long-term, applied

behavior analytic (ABA) treatment enables many children with ASD to make significant gains.” Other research has shown positive effects from the use of ABA as incorporated with the social skill interventions listed above (Schreiber, 2012). While such interventions are likely to be successful in remediating social and emotional deficits in children with ASD, such specialized interventions and settings are often unavailable for children with milder forms of ASD.

**Interventions for early communication in Autism Spectrum Disorders.** Goldstein (1997), Paul and Sutherland (2002), Rogers (2004), and Wetherby and Woods (2006) have reviewed interventions for early communication in ASD, which are generally divided into three major categories. The first are often referred to as didactic. Didactic methods are based on behaviorist theory and take advantage of behavioral technologies such as massed trials, operant conditioning, shaping, prompting, and chaining. Reinforcement is used to increase the frequency of desired target behaviors. Teaching sessions using these approaches involve high levels of adult control, repetitive periods of drill and practice, precise antecedent and consequent sequences, and a passive responder role for the client. The adult directs and controls all aspects of the interaction.

A second category of approaches is frequently called “naturalistic”. These approaches attempt to incorporate behaviorist principles in more natural environments using functional, pragmatically appropriate social interactions, instead of stimulus-response-reinforcement sequences. Naturalistic approaches focus on the use of “intrinsic,” rather than tangible or edible reinforcers. Intrinsic reinforcers include the satisfaction of achieving a desired goal through communication (the client says, “I want juice” and gets juice), rather than more contrived, extrinsic reinforcers such as getting a token or being told “good talking.” Finally, and perhaps

most important, naturalistic approaches attempt to get clients to initiate communication, rather than casting them always in a responder role.

The final orientation in this classification scheme is called developmental or pragmatic. These approaches emphasize functional communication, rather than speech, as a goal. As such, they encourage the development of multiple aspects of communication, such as the use of gestures, gaze, affect, and vocalization, and hold these behaviors to be necessary precursors to speech production. Activities provide multiple opportunities and temptations to communicate; the adult responds to any child initiation by providing rewarding activities. Thus the child directs the interaction and chooses the topics and materials from among a range that the adult provides. Teachers strive to create an affectively positive environment by following the child's lead, and react supportively to any behavior that can be interpreted as communicative (even if it was not intended in that way).

Developmental-pragmatic approaches are widely used and advocated by many prominent communication specialists. One problem with these methods is that, to an even greater extent than naturalistic approaches, they require a high degree of sensitivity, creativity, and on-line decision-making on the part of interventionists. Programs like Hanen© have demonstrated that parents, teachers, paraprofessionals and others can learn these methods, but they require extensive training, practice, and ongoing support. Moreover, demonstration of child outcomes in response to adult training is weak. To some degree, then, the success of developmental-pragmatic programs may hinge on the careful training, follow-up, support, and talent of those who deliver the intervention.

At this time, developmental-pragmatic approaches have a narrower base in empirical research than the other two approaches to communication intervention in ASD. Some studies

have shown them to be effective for eliciting speech in children with other developmental delays. In addition, studies of child-centered methods have demonstrated their ability to increase imitation, gaze, turn-taking, and joint attention in preverbal children with ASD. Kasari (2003) and Whalen, Shreibman, and Ingersoll (2006) report on a small sample of studies showing improvement in communication following training focused specifically on eliciting joint attention. Yoder and McDuffie (2005) review research that suggests training children in play and nonverbal communication skills may improve the ability to acquire speech.

### **Reading Interventions**

In the literature, there are many kinds of reading interventions that are designed to improve children's language skills such as phonetic awareness, phonics, reading fluency, comprehension, and vocabulary knowledge. A great deal of research has been done to identify the most effective reading interventions for students with learning disabilities who struggle with word recognition and/or reading comprehension skills.

Between 1996 and 1998, a group of researchers set out to synthesize the results of 92 such research studies. Through that analysis, Swanson (2000) identified the specific teaching methods and instruction components that proved most effective for increasing word recognition and reading comprehension skills in children and teens. Some of the findings that emerged from the meta-analysis were surprising. Traditionally, one-on-one reading instruction has been considered optimal for students with learning disabilities. Yet it is found that students with learning disabilities who received reading instruction in small groups (e.g., in a resource room) experienced a greater increase in skills than did students who had individual instruction.

Direct instruction appears the most effective approach for improving word recognition skills in students with learning disabilities. Direct instruction refers to teaching skills in an explicit, direct fashion. It involves drill/repetition/practice and can be delivered to one child or to

a small group of students at the same time. The three instruction components that proved most effective in increasing word recognition skills in students with learning disabilities are sequencing, segmentation, and advanced organizers. It is recommended that a reading program for word recognition should include all three components.

The most effective approach to improving reading comprehension appears to be a combination of direct instruction and strategy instruction. Strategy instruction means teaching students a plan (or strategy) to search for patterns in words and to identify key passages (paragraph or page) and the main idea in each. Once a student learns certain strategies, he can generalize them to other reading comprehension tasks. The instruction components found most effective for improving reading comprehension skills in students with learning disabilities are directed response/questioning, control difficulty of processing demands of task, elaboration, group instruction, and strategy cues.

While there are numerous research studies which focus on improving reading comprehension of children with learning disabilities and children who show typical development, some studies also examined the effectiveness of different reading interventions on children with ASD. Reading comprehension challenges are common among children who have ASD. Indeed, many of these children initially appear to be “hyperlexic,” having vocabulary and reading speeds far beyond what’s typical for their age. But on closer examination, they often lack understanding of what they read. Research has also shown that, as a group, children with ASD have decreased connectivity between the areas of the brain involved in making sense of incoming information – including written and spoken language. Many type of reading interventions such as Visualizing and Verbalizing Program, Robotic Reading, Embeded Reading Activities have found to be significantly effective on increased brain activation and connectivity

between two of the brain's core language areas. Further, this increased activity and connectivity corresponded to the amount of improvement each student showed in reading comprehension.

While a majority of existing research has focused on improving reading comprehension skills of children with ASD, other studies have focused on phonetic awareness, phonics, reading fluency, and vocabulary knowledge. All these research have found that reading interventions especially small group reading interventions have either slightly or significantly positive effects on language skills of children with ASD. Repeated storybook readings also were applied to the children with ASD as a language intervention and it is found that spontaneous language use is strongly beneficial for their language development in overall.

### **Interventions to Teach Emotion Vocabulary and Emotion Recognition**

While no studies specifically targeting interventions to improve emotional vocabulary knowledge of children with ASD could be found in the literature, several studies that target the improvement of emotion recognition of children with ASD were identified. Most of these studies focused on using media devices, movies, computer-based programs and very rarely pictures and objects. Lego therapy (Owens et al. 2008) is an example that encourages young children with ASD to build Lego models in groups of three, thereby gaining opportunities for social interaction. The authors suggest that children participating in Lego therapy are intrinsically motivated by Lego because it involves constructional systems.

Other intervention method for children with ASD to improve their emotion recognition was Mindreading DVD. This comprises educational software that was designed to be an interactive, systematic guide to emotions (Baron-Cohen et al. 2004). It was developed to help people with ASD learn to recognize both basic and complex emotions and mental states from video clips of facial expressions and audio recordings of vocal expressions. It covers 412 distinct emotions and mental states, which are organized developmentally and classified taxonomically

to be attractive to a mind that learns through systemizing. Using Mindreading over a 10 week intervention (2 h usage per week), individuals with ASD improved in their ability to recognize a range of complex emotions and mental states (Golan & Baron-Cohen 2006). In a follow-up conducted one year after the completion of the intervention period, individuals with ASD who used Mindreading reported an improved ability to form friendships and relationships and increased awareness of the importance of emotions and emotional expressions in everyday life, improving their understanding of emotions and their corresponding expressions, and affecting their ability to function socially (Golan & Baron-Cohen 2007). Guarding against the risk of artificiality, Mindreading used real faces rather than cartoon or schematic faces.

Even though computerized methods have some advantages for teaching children emotion recognition such as providing the learner with control over their speed and the number of exposures they need in order to analyze and memorize the features of each emotion, difficulties with generalization have been found both in computer-based intervention programs (Silver & Oakes 2001; Bölte et al. 2002) and in social skills training courses (Bauminger, 2002; Barry et al. 2003). The limited effectiveness of these interventions could be related to a lack of intrinsic motivation, since they use explicit rather than implicit teaching methods. Therefore, most of these studies that used multimedia devices recommend the use of more interactive teaching methods such as discussion of each emotion in small groups, or as part of dramatic role-play.

One promising study was conducted to see if children with ASD have emotion recognition for emotions; happy, sad, and surprised. Baron-cohen et al. (1992) informed that children with ASD have more difficulty to recognize surprise other than happy and sad since typical “simple” emotions; happy and sad caused by situations, but surprised is typically a

“cognitive” emotion caused by beliefs. However, this study has also used a multimedia source as a research material other than storybooks.

### **Need for Social and Emotional Skills Interventions**

Providing effective educational services to students with ASD, it is necessary to understand the social characteristics of this population. Individuals with ASD suffer direct and indirect consequences as a result of their social skills deficits. These individuals often express a desire for greater peer interactions and social support, and they typically report having poorer quality friendships. They are also more likely to endure increased feelings of loneliness, peer rejection, and social isolation as compared to typically developing peers (e.g., Laugeson, Frankel, Mogil, & Dillon, 2009; White, Keonig, & Scahill, 2007). Research also suggests that social skill deficits among individuals with ASD contribute to academic and occupational problems, as these individuals are more likely to be un- or under-employed and less likely to have satisfying social relationships (White et al., 2007).

Given that long-term social adjustment is directly related to the development of social competency, interventions addressing the social needs of these individuals are critical to helping them overcome many of the negative effects of this disorder (Cotugno, 2009). However, while social skills deficits have been noted as the hallmark of this disorder, most of research in the field of ASD has focused on reducing behavior problems or increasing communication abilities (Webb, Miller, Pierce, Strawser, & Jones, 2004). Consequently, social deficits in this population remain a major treatment challenge (Webb et al., 2004; White et al., 2007). In addition, the manner of providing these services remains unclear (Kroeger, Schultz, & Newsom, 2007).

Paul (2009) reviewed different approaches for intervention methods that targets to the improvement of early communications skills of children with ASD and found that intervention for children with ASD at prelinguistic and early language stages has been shown to make a

dramatic difference, at least in short-term outcome. Intervention methods that draw from a range of philosophies and make use of varying degrees of adult direction have been shown to be effective in increasing language and communicative behaviors, although direct comparisons among methods, controlled studies with random assignment to treatments, and long-term outcome studies are, as yet, lacking. Despite the gaps in our current knowledge, it is clear that children with ASD benefit from intensive, early intervention that focuses on increasing the frequency, form, and function of communication.

Available evidence shows that highly structured behavioral methods have important positive consequences for these children, particularly in eliciting first words. However, the limitation of these methods in maintenance and generalization of skills suggests that many children with ASD will need to have these methods supplemented with less adult-directed activities to increase communicative initiation and to carry over learned skills to new settings and communication partners (Paul, 2009).

A review of programs aimed at language development in speakers with ASD points out the importance of thinking beyond words and sentences to the social functions of communication and language use when developing interventions. Although a range of adult-mediated programs have effects, providing opportunities for mediated peer interactions with trained peers in natural settings appears to be especially important in maximizing the effects of interventions.

In addition, research suggest that preferred activities for children who especially have special needs should be embedded as naturally as possible in their curricula. Screening instruments and assessments should be administered to the children in their naturalistic environment as much as possible. Most importantly, therapies and interventions that will be delivered to the children who have been diagnosed with ASD should be supported with

classroom and school activities with cooperation of families, teachers and their peers. While there have been increasing demands for using computer based programs and multimedia devices in interventions for ASD, the literature field needs more research on using naturalistic materials and environments. At the same time, the current research literature does not provide any data for the usage of storybook readings as an intervention method to teach children emotion recognition. In the same way, storybook readings never used as an intervention method to teach children emotion vocabulary.

### **Research Question**

Since there is no research have been completed on the effectiveness of storybook reading as an intervention method to teach children emotion vocabulary and emotion recognition, this research seeks to understand the extent to which a repeated storybook reading intervention can be used in a naturalistic setting to improve the emotion vocabulary knowledge and emotion recognition of children with characteristics common to ASD.

### **Purpose of the Study**

The primary purpose of this case study is to find whether or not a repeated storybook reading about emotions has an effect on emotion recognition skills and emotion vocabulary knowledge of children with ASD. This study also aimed to explore whether repeated storybook reading about emotions can support typically developing children in an inclusive classroom and improve their social skills.

## CHAPTER 2 RESEARCH DESIGN AND METHODOLOGY

This research is designed as a case study to explore the use of a dialogic reading intervention to improve the emotion knowledge, emotion vocabulary and social skills of a group of preschool children, including one child at risk for ASD. By examining the process of this intervention in depth, I hope to provide a new perspective for researchers and early childhood educators interested in developing reading interventions about emotion vocabulary. The remainder of this chapter organized using Yin's (2014) framework for describing case studies: overview, participants, data collection procedures, data collection assessments, materials and an evaluation of data collection process.

### **Overview**

This case study involves an implementation of the dialogic reading intervention in an inclusive preschool setting in north central, Florida. Because of the preschool's commitment to serve all children, regardless of disability status, it is possible that more than one of the children might have disability. The preschool class that serves as the focus of this study was selected by the director of the preschool because the teacher had expressed significant concerns about the social and emotional skills of one of the children, describing him as having characteristics associated with Autism Spectrum Disorders (ASD).

The intervention was implemented in the classroom over a period of three weeks. Before starting intervention, consent forms were distributed and collected. In the same week, pre-assessment instruments were administered to the children whose parents returned consent forms. During the following three weeks, at least two researchers visited the class for dialogic reading and observation in every school day. The five emotions vocabulary words chosen for this case study intervention included; happy, sad, angry, scared, and surprised. Corresponding to these

words, five books that represent and pinpoint each emotion were chosen. Each book highlights one emotion, and was read to children one time per day, three days in a row, with three different scripts in each day, respectively happy, sad, angry, scared and surprised. The readings took place in children's natural classroom setting. That is, the intervention was not administered to the participants individually in a separate environment. The reading time was chosen in cooperation with the classroom teacher based on the activity schedule of class. Since reading activities take place in every day in every preschool setting and children are familiar with reading activities in daily life, adding reading intervention to the classroom schedule did not cause any disruption to the delivery of instruction. The intervention, including reading the story, showing picture and vocabulary cards and reviewing previously learned words took approximately 10-15 minutes each day.

### **Participants**

Participants in this study include one teacher, "Ms. Stephanie" and five 4 year-old children in an inclusive preschool classroom. The class includes eight children in all. In addition to the five children who were assessed and observed for this study, there were an additional three children who listened to the story but whose parents did not consent for them to participate in the data collection procedures. This group of children have been together in class for ten months. The children in our study included three boys and two girls with a mean age of 4,63 years. Most of the participants in our study are described as White, with one child also described as Hispanic, and one child described as Asian.

One of the children, "Michael", was described by his teacher as having significant difficulty interacting with his peers. Ms. Stephanie described him as a sweet child whose special and emotional behavior are somewhat atypical. For example, he was described as frequently fixating on stories and classroom items (e.g., tape). Additionally, Ms. Stephanie described

Michael as having excellent language skills overall, but limited conversational potential because he tends to obsessively discuss stories, movies, and video games without regard for the other person's knowledge or interest. She also noted that Michael seems to have difficulty recognizing and responding appropriately to his classmates' emotions.

### **Data Collection Procedures**

Once parent consent was obtained, the children were invited to participate in pre-intervention assessments. Each child accompanied a researcher to an area adjacent to the classroom to complete the pre-intervention assessments, described in the next section. Following the intervention, each child was invited to work with researchers to complete the post-intervention assessments in the same location.

During the intervention, one researcher read the stories and dialogic reading script. At the same time, another researcher observed all children.

### **Data Collection Assessments**

Assessment of children with ASD can have some complications, especially in the communication and language domain since, as a characteristic of the disorder, language impairments are very common. Even though this is one of the most common characteristics of ASD, the level of speech and language skills vary since Autism is a spectrum disorder. However, most of the children with ASD have a hard time with using gestures, in social reciprocity and conversational skills. Therefore, when choosing assessments to measure the development of language and communication skills of children with ASD, the norming sample of assessment and accommodations for children with special needs should be examined specifically. To select the best assessment for this study, search divided into parts. The first part involved a search of the literature to see which psychometrically sound assessments were used to assess children with ASD, how many of them assessed children in social and language and

communication domain and what the limitations and advantages of using this assessment. Secondly, particularly analyzing which assessments provided reliable and valid data based on previous research to see if these assessments include children with ASD in their norming sample, and which provide accommodations for these children. In addition, another literature search was completed to see if there is any assessment which can be directly used to measure children's emotion vocabulary knowledge and emotion recognition. If there is, which one can be used to measure emotional vocabulary knowledge and emotional recognition of children with ASD.

After literature review and analysis of assessments, Second Step Interview (Committee for Children, 2002) and Peabody Picture Vocabulary Test (4<sup>th</sup> edition, PPVT-IV; Dunn & Dunn, 2007) were used to assess participants in this case study. In addition to these two assessments, another assessment which measures children's emotion vocabulary knowledge and called 'Emotion Vocabulary Assessment' was created the by research team. Two of these three assessment instruments were used as pre- and post-assessments; Second Step Interview and Emotion Vocabulary Assessment. To collect data about children's responses and reactions to the book questions and their social interactions with each other, teacher and researcher before, during, and after the intervention, an observer researcher kept anecdotal field notes.

### **Second Step Interview (SSI)**

Committee for Children Foundation was created a program which called Second Step to help children to improve their social skills and academic success. The program combines evidence-based practices and social and emotional curriculum to teach children to impress their feelings and desires in appropriate way. The main purpose of this program was to improve children's academic success by improving their social skills and preventing problem behaviors which were highly common among high school children. Developing self-control skills by helping them to be able recognize their and others' emotions and ideas in certain situations was

the key point. Second Step Interview Assessment was developed to measure children's understanding about others' feelings and their reactions in certain situations. In addition, this assessment is useful to understand if children have ability to read social and emotional cues and how their social emotional vocabulary knowledge is. This assessment is chosen to measure children's ability to read social emotional cues and their reactions to certain situations that require an ability to recognize nonverbal emotion cues. In addition, their knowledge of and ability to identify emotion vocabulary were targeted to measure with this assessment instrument. Second Step Interview was used as pre- and post-assessment instrument.

### **Emotion Vocabulary Assessment (EVA)**

Emotion Vocabulary Assessment was created by researchers at the University of Florida to measure children's emotion vocabulary knowledge which directly points the emotion words of this study; happy, sad, angry, scared, and surprised. While this assessment targets to measure children's emotion vocabulary knowledge, at the same time, it targets to measure children's ability to identify emotions from only facial cues. Since it was a curriculum-based measure created for the purpose of this research, it does not have validity or reliability data. This instrument also was used as pre- and post-assessment.

### **Peabody Picture Vocabulary Test (PPVT-IV)**

The Peabody Picture Vocabulary Test (PPVT-IV) was used to measure children's general receptive language abilities. The PPVT is a widely used, norm referenced instrument designed to measure children's receptive vocabulary. On the PPVT, a score of 100 is considered to be "average," and scores falling between 85 and 115 are considered to be in the average range.

Before the intervention, every child was assessed with this instrument to ensure that all children have adequate vocabulary knowledge to understand storybook readings. This instrument was only used as pre- assessment for control purposes not for measuring the effectiveness of

intervention. This instrument is a very commonly used tool in previous research to measure receptive language skills of children with ASD.

All assessment instruments which were used in this study were administered to the children who have consent forms.

### **Materials**

For each of the target emotion word –happy, sad, angry, scared, and surprised five storybooks were selected.

- Happy – “Taking a Bath with the Dog and Other Things that Make Me Happy” by Scott Menchin
- Sad – “Let’s Talk About Feeling Sad” by Joy Berry
- Angry – “When I Feel Angry” by Cornelia Maude Spelman
- Scared – “Creepy Things Are Scaring Me” by Jerome and Jarret Pumphrey
- Surprised – “I Will Surprise My Friend!” by Mo Willems

The selection criteria for these books is that developmental appropriateness, clarity of providing context and target words, the attractiveness of physical components such as pictures, font, colors, etc. and repetitiveness of target words. In consideration of characteristics of autism, pictures and colors can be highly effective to get children’s attention on the book, and the repetition of target words especially in a rhythm is highly important to keep children’s attention alive during the reading intervention. For each book, three reading scripts were created in connection with picture and word cards. The purpose of creating three different scripts for each book is to make it easy for children to understand/ recognize the emotion words and cues in different situations and keep readers in a framework. In addition, in scripts for each book, some questions were included to help children to make connections between their experiences and target emotion.

For each emotion, two word cards were prepared to represent exact word and its synonym. For example, one card for ‘happy’ and one card for its synonym ‘glad’. In addition, to

teach children how to read facial cues, at least two pictures were presented. This storybook reading intervention is consisting of readings with scripts, pictures and synonym vocabulary cards. The order of presentation of each intervention item was depend on the scripts which were prepared by research team before intervention.

### **An Evaluation of Data Collection Process**

An information letter about this case study was prepared to inform teacher and school principals. After selection of an inclusive classroom, first, the teacher consent form was obtained and then the teacher was asked to provide consent forms to the families of children.

Upon completion of consent forms, Pre- test assessments respectively Emotion Vocabulary Assessment (EVA), Second Step Interview(SSI), and Emotion Vocabulary Assessment (PPVT-IV) were administered only to the children who had consent forms at school. After pre-assessments, reading intervention took place. The researcher read the books according to their scripts to the whole class during 15 days, each book three times, respectively happy, sad, angry, scared, surprised. Storybook reading time was decided depend on the class schedule and Ms. Stephanie's availability. All interventions were completed on mornings between 08.30am and 09.30am in children's natural classroom setting. Research supports that interventions which implemented or administered in natural settings of children have more benefits on children because children feel more comfortable and safe in an environment which they are familiar. Also, it is important that intervention has the least corruption in their classroom routines. Considering this is also critically important for children with autism because resistant to change in daily routine and environment is one of the best-known characteristics of autism.

## CHAPTER 3 RESULTS

This section presents the results of the pre- and post-assessments and the anecdotal field notes collected for this case study. Since Peabody Picture Vocabulary Test (PPVT-VI) was administered only as pre-assessment to see whether a child has adequate vocabulary knowledge in English Language to understand story book readings, the results obtained from this assessment were analyzed separately. Data analyzing process includes assorting questions in each assessment depend on their context in accordance with the purpose of this study. Afterwards, the questions in both Emotion Vocabulary Assessment and Second Step Interview were paired depend on these two contexts; emotion vocabulary knowledge; happy, glad, sad, upset, angry, mad, scared, afraid, surprised, shocked and description of facial expressions of emotions. After sorting questions in each assessment and pairing them with each other depend on their context, data were analyzed by comparing the child's responses to the similar items/questions in each assessment. In addition, the data were analyzed separately by each child and as a whole group. Pre and post-assessments scores of children can be found in Table 1.1 at the end of this chapter.

### **The Analyses of Assessments and Field Notes by Child**

#### **Case 1 “Michael”**

Michael is a four-year and eight-month-old child. He is a male white American. He has been attending the same child care center since he was two and half. His mother language is English. It is the only spoken language at home. He does not have a diagnosis of any disability but he is suspected to have ASD by his teachers since he showed characteristics of ASD.

**Peabody Picture Vocabulary Test (PPVT-IV).** The child's standard score was 111 with a percentile rank of 77. Confidence interval was 105 – 117 with percentage of 95. His score falls into the high average area in normal curve. It is appropriate to say he has more word knowledge

in English Language than the 77 percent of same aged children. On the other words, his ability to understand English Language and his English vocabulary knowledge as measured by the Peabody Picture Vocabulary Test (PPVT) is above average. With these results, Michael was included in this intervention case study.

At the beginning of PPVT-IV assessment, he was not interested and has no attention. Near to end, he focused more. For the items which were showing fire and cactus, he made noises like ‘auch’ and screamed like they were real and he was touching them. One of the items was showing ‘ruler’ Michael asked ‘where is the ruler?’ and he was not able to point its picture among others. Similarly, he was not able to point a picture of ‘canoe’ among other pictures.

Even he seemed not to pay attention, his score fell into high average area in normal curve. After set 9, administration of assessment was stopped because he was not able to answer eight items in set 9. Sometimes he tried to talk about other things other than paying attention to instrument items.

**Pre-assessments.** His score for pre-Emotion Vocabulary Assessment was 11 out of 25 and pre-Second Step Interview was 6 out of 20. Michael was able to correctly identify scared, happy and angry. For sad and surprised, he gave different answers in each assessment. In all questions which were related to reading facial cues, he was not able to describe emotion faces. For instance, when the assessor asked ‘what about the person’s face makes you think she/he is angry?’, he talked about possible reasons that may make people angry like ‘someone took his blanket’ other than describing his/her face -facial cues-. He was not able to answer any questions which were related to synonyms.

**Post-assessments.** While his score in Emotional Vocabulary Assessment increased to 20 from 11, his score in Second Step Interview stayed same. He was able to know emotion words

and their synonyms in both assessment except happy. However, when describing facial cues of emotions, he provided different answers in each assessment. In EVA, he was able to describe sad, happy but provided different answers or no answer for surprised, scared and angry. In SSI, he could not describe any facial cues of emotions.

In overall, he seemed very sad and not willing to answer. Also, he accepted that he is sad because he did not get something in water time and they will not have it next week. Unlike pre-Emotion Vocabulary Assessment, he was not enough motivated and active to answer questions. Also, he seemed tired. Assessor had to make lots of prompting to get answers. However, he got a higher score in post Emotion Vocabulary Assessment although he seemed very sad and not willing to answer.

**Anecdotal field notes.** During the pre-EVA, he tended to create some words to answer questions. For example, 1.1. 'slimy' 2.3. 'jokey' 3.3. 'gogy'. Interestingly, he used the words 'scared' and 'jokey' in the same item (item 2). When it was asked 'Can you think another word for scared?', he responded 'jokey'. He made lots of disconnected comments. He seemed that he tends to talk about his interests and he loves doing this. He made great eye contact during both answering assessment questions and talking about his interests.

In the post-EVA, between questions one and two, he talked about movie 'Trolls'. In the second question, he said, 'doggy face' and 'I do not know' He was not attentive, looked like very sad. Assessor had to give lots of prompting to get answers. For the question, 3.1 he said, 'she is happy because it is Halloween', for 3.3 he said, 'smiling' Reader repeated the question and then he said, 'I do not know'. In the question 4.2, he said, 'because he does not get to listen Ghost Busters' Assessor still was prompting to get answers. She said, 'you're the smart kid' and Michael said, 'I know'. For one of the last two questions, his answer was totally irrelevant

‘Todd’s scared face and he kiss sometimes’ also again he said, ‘I do not know’. Near to the end, he started to line up and taking away the pictures. One time he picked two pictures ‘sad’ and ‘scared’ for the last question and answered, ‘he does not know what happened’

In pre-SSI, he was happy and attentive but his answers, most of the time, were not related to what was asked in the item. He was starting sentences with ‘well’, ‘guess’ or ‘guess what’ and used some words which have no meaning like ‘goggy.’ In post-SSI, His responses to the first seven question for picture one were mostly irrelevant and he was not willing to answer any of them. He said, ‘I do not know’ two times. His answer ‘just snatch the toys’ to the third question was not an appropriate answer for the problem situation which was described by assessor. For Second picture questions eight to thirteen, his answers were irrelevant and he did not seem focused. Two times, he said, ‘I am not sure’. As a solution to the problem situation which was described on the picture, he said, ‘snatch it’ again. In addition, he turned away in chair, fidgeted, and kept talking about “poop” as a distraction.

Among the questions for third and fourth pictures, he was able to describe children’s feeling with an appropriate emotion word. He used the word ‘shocked’, synonym of ‘surprised’, which was taught during the book reading intervention. However, he did not answer ‘How can you tell?’ questions and only said, ‘I am not sure’ / ‘because she has dead body’ (totally irrelevant and different answer).

For the questions of picture five, as he did during intervention, he again used the words ‘unhappy’ and ‘ugly’ as synonyms of ‘mad/angry’. One time he said, ‘I do not know’ for the question ‘how can you tell he/she is mad?’. He gave an appropriate answer for the last question - solution for a problem situation- ‘just run away’ ‘sit one hundred minutes by self’. Also, he said, ‘get poop in the days’ as a distraction.

**His response to readings.** At the beginning of intervention and throughout the third reading, he more tended to talk about movies that he watched, especially Ghost Busters. When responding book questions, he preferred to relate his emotions with ghosts, Ghost Busters and other scary movies. Although his answers were irrelevant and sometimes off-task, he was attentive to the readings and be volunteer for answering questions. However, during last week, last two book readings, he was less attentive to the book readings and questions, no interruption to the reading to talk about his thoughts. At the same time, his responses were less off-task. It seemed like he is obsessed with horror movies especially Ghost Busters, most of time off-task and have irrelevant answers. He does not interest in other's feelings.

## **Case 2 "Todd"**

Todd is a four-year and seven-month old. He is white American male. His mother language is English and it is the only spoken language at home. He does not have any disability. However, he has some problem behaviors which affect his communication with his peers.

**Peabody Picture Vocabulary Test (PPVT-IV).** The child's standard score was 129 with a percentile rank of 97. Confidence interval was 124 – 133 with percentage of 95. His score falls into the moderately high score area in normal curve. His score is in almost between moderately high score and extremely high score. It is appropriate to say he has more word knowledge in English Language than the 97 percent of same aged children. On the other words, his ability to understand English Language and his English vocabulary knowledge as measured by the Peabody Picture Vocabulary Test (PPVT) is moderately high. Since he has an enough score in PPVT-IV, he is included to this storybook reading intervention.

The administration of assessment was started in the set which is age equivalent. In the first item of the set, he was not able to point the picture of an object (pencil) which item asks. Therefore, it was started once again from the previous set. He gave the same reaction when

showing the ‘cactus’ as Michael gave. When administrator asked the item questions, he repeatedly asked ‘what the sewing is? What is the west? Where is the banana?’ however, he was also able to answer these items. He came throughout set 11 but he seemed like he got bored.

**Pre-assessments.** His score in EVA was 11 out of 25 and his SSI score was 5. In both assessment, he was able to label each emotion but he was not able describe facial expression of emotions and know their synonyms. Only in EVA, he was able to know to synonym of sad; mad.

**Post-assessments.** In both post-assessment, his scores increased significantly in compared to the pre-assessments; EVA is 20 out of 25 and SSI is 10 out 10. In post-SSI, he responded all questions correctly which means he can label five main emotions and their facial expression. However, in EVA, his responses changed. For instance, in the second item of assessment, he answered all the questions related to scared but in the seventh item, he could not answer the questions related to scared. In compared to the pre-assessment, he was significantly better in describing facial cues and synonyms of words.

**Anecdotal field notes.** During reading interventions, he got hard time to control himself and sit without disturbing others. When the classroom teacher, Ms. Stephanie, presents, his behaviors were less distractive. During last three days of intervention, he seemed to be less physically active.

**His response to the readings.** He seemed to listen reading and tried to answer questions. However, during first three book readings, the answer was generally ‘I do not know’. In last two book readings, he always gave the opposite answers for questions. He looked like uninterested making faces and answering questions other than distraction.

### **Case 3 “Sarah”**

Sarah is a female, white, American student in the same classroom. She is four-year and four months old. English is the only spoken language at home. She does not have any disability.

**Peabody Picture Vocabulary Test (PPVT-IV).** The child's standard score was 129 with a percentile rank of 97. Confidence interval was 122 – 134 with percentage of 95. Her score falls into the moderately high score area in normal curve. Her score almost between moderately high score and extremely high score. It is appropriate to say he has more word knowledge in English Language than the 97 percent of same aged children. On the other words, her ability to understand English Language and her English vocabulary knowledge as measured by the Peabody Picture Vocabulary Test (PPVT) is moderately high. With this score in PPVT-IV, she is included to this storybook reading intervention.

She was focused during the assessment. While she was answering questions correctly, she also asked other pictures in items 'what is this?' Administrator ignored her questions and continued to assess with the following item. Like Todd and Michael, she also gave the same reaction to the pictures of 'cactus' and 'ruler'. She pointed the cactus and said, 'auch'. For the item which was asking 'ruler' picture, she was not able to point the correct picture. She sometimes asked 'what is this?' for the picture which she does not know its name and when she wants the administrator to repeat the question. Overall, she was great, but like others, she also seemed bored near to end.

**Pre-assessments.** For labeling emotions, she answered all the questions correctly. She provided different answers for describing facial expressions related to emotions. In SSI, she was only able to describe sad face. She was able describe all facial expression in the first five question of EVA but in last five questions, she could not. Instead of describing facial expression, she provided answers like why they feel happy, sad, etc. For the synonyms of emotion words, she was only able to used 'frustrated' for scared.

**Post-assessments.** Her score in post-EVA assessment decreased slightly from 17 to 15 out of 25. Depend on the assessor's note she seemed tired and distracted throughout the assessment. She was able to label all emotions; happy, sad, angry, scared and surprised and provide their synonyms. However, she was only able to describe facial expressions for emotions sad and happy. There was a big difference between answers in SSI and EVA. For example, she was able to label all emotions and describe their facial expressions in SSI but not in EVA.

**Anecdotal field notes.** In pre-assessments and during first two reading, she was not able to describe facial cues of emotions and used to provide answer like why they feel happy, sad, etc. During the last two readings and post-assessments, there is no change observed. However, she seemed to remember the synonym of all emotions.

**Her response to the readings.** Most of time, she was attentive to the story book readings, trying to answer questions and making emotional faces when asked. She was very rarely distracted by others and most of time seemed listening the book and following the reader.

#### **Case 4 “Jose”**

Jose is four-year and seven-month old male child. He is a child of American mother and Latino father. His primary spoken language at home is English. There is no information about if other languages are spoken at home. He does not have a disability.

**Peabody Picture Vocabulary Test (PPVT-IV).** His standard score in PPVT-IV is 124 with a percentile of 95 which means he did 95 percent better in compared to what typically growing children in the same age did. Since he has an sufficient score to say he is able to understand English language, he is included in this story book reading intervention.

**Pre-assessments.** He was able label all emotions in both pre-assessment however was not able to describe facial expressions of any emotion. He was only able know the synonym of angry; mad.

**Post-assessments.** His score in EVA increased significantly from 9 to 12. However, there was no change on his score for SSI. In details, he was able to label emotions and provide their synonyms but as he did in pre-assessment, he could not describe the facial expressions of any emotion except happy (only in SSI).

**Anecdotal field notes.** Jose was silent during post-EVA but he was on his mood and willing to answer questions. He was able to know emotion words but for the question “How do you know?” he told reasons instead of describing their faces. For example, when he was asked “how do you know she is feeling sad?” he responded, ‘she did not get her haircut’. For SSI, especially, in the last part of assessment -last six questions- he did very well.

**His response to the readings.** During readings, he was generally silent and not attentive and not following the reading.

#### **Case 5 “Maria”**

Maria is a four-year and four-months old, female child. She is half Asian half Caucasian. There is no information about how many languages are spoken at home. She does not have any disability.

**Peabody Picture Vocabulary Test (PPVT-IV).** Her standard score is 103 with a percentile of 58. Since she is able to understand English Language as much as typically growing up children at the same age. She is included in this storybook intervention.

**Pre-assessments.** In both EVA and SSI, she was able to label all emotions except in last two items of EVA. She was only able to describe happy face among all but only one time. Instead of describing facial expressions, she responded questions by giving possible reasons why they feel like that.

**Post-assessments.** There is significant change in EVA scores over pre- and post-assessments. Her score increased from 8 to 16. In the EVA post-assessment, she was able to label emotions too and she also described facial cues of emotions. However, she was only able to know the synonym of sad; mad. Interestingly, she sometimes was not able to distinguish angry face from scared face.

**Anecdotal field notes.** In the first five items of EVA, she was able to say label emotions and describe why she thinks like that. Other than describing people's face, she showed her scared, happy, angry, surprised faces and said, 'because he/she makes like this'. She only was not able to describe or show 'sad' face. She only knew the synonym of angry, 'mad', not others. For instance, she said, 'surprised' as synonym of happy. In the second part of assessment, she seemed less focused and was only able to answer questions about happy, surprised and sad. In the same way, she could not describe the faces verbally but showed her happy, surprised and sad face (not describing face, just showing). Unlike her pre-assessment answers, this time she was able to show or make emotional faces other than telling reasons. During the SSI, overall, she seemed focused and she answered the questions. Her answer for happy was great 'because she is making happy face, ten of all teeth one felt down'.

**Her response to the readings.** During reading interventions, she was attentive and seemed listening and following the reader. She always showed her emotion face when asked and she was great making emotion faces. In other questions about books, generally, she was not able to answer but was still attentive.

### **Class Response to the Readings**

During the readings and scripted questioning, the children's response was consistent with books' context. Michael and Todd was sometimes able to remember book names exactly. Most of the time, they were curious about who will read next book and what book will be read.

They sometimes seemed to repeat each other’s answers to the questions. Maria and Sarah were attentive and interested most of time. Jose generally were silent and seemed less interested. Todd and Michael were normally not friendly to each other but they enjoyed imitating each other’s responses, words and behaviors. Therefore, sometimes during reading and word review, they seemed not interested. Michael was probably the most attentive one since last reading. He made interruptions during reading to talk about what he thinks. However, not most them were related to book.

Table 1-1. Summary of participants’ pre- and post-assessment data

	PPVT-IV	EVA		SSI	
		Pre	Post	Pre	Post
Michael	111	11	20	6	6
Todd	129	11	20	5	10
Sarah	129	17	15	6	9
Jose	124	9	12	6	6
Maria	103	8	16	5	7

Note: For PPVT-IV, standard scores are presented.

## CHAPTER 4 DISCUSSION

### **Summary**

Storybook reading intervention is one of most common interventions to improve children language and communication skills. However, there is a lack of research in the literature that reading intervention was used to improve children's emotion recognition and emotion vocabulary knowledge. This case study is aimed to full fill this gap in the literature. Primary purpose of this study was to improve children's emotion recognition and emotion vocabulary knowledge throughout the storybook readings. The storybooks related to five emotions; happy, sad, angry, scared and surprised, was read to small group of students respectively three times in a week. Each book has three different scripts to follow each day. Reading intervention also included at least two pictures to show people's different facial expressions for an emotion and two word cards to teach the synonym of emotion word and itself. The data were collected through the pre-assessments, post-assessments and anecdotal field notes to find effectiveness of this storybook reading intervention. The data gathered from these three assessments were analyzed by dividing and pairing assessments' items depend on their contexts. The findings of this study indicate that storybook reading interventions have positive effects on the development of children's emotion recognition skills and emotion vocabulary knowledge. The results of this study suggest that repeated storybook readings should be implemented in children's naturalistic environment as much as possible and readings should be supported by embedded activities.

### **Implications for Practice**

Practitioners who targets to improve children's emotion recognition and vocabulary knowledge via storybook readings may consider having additional activities to support children's learning. In addition, while storybook reading, having different materials related to book may

help practitioner to manage small group, keep children's attention on reading and help them to memorize context. Arranging class environment, finding visual materials, inviting people to the class before book reading may also positively support the effectiveness of storybook readings.

### **Study Limitations**

In some reading days, it is observed that children are extremely tired or thinking about upcoming activity. That affected their motivation and focus on readings. Therefore, reading time and days should be decided carefully with coordination of school administration and classroom teacher. Even though reading scripts were provided in this study, children may behave differently depend on the readers' attitudes against their questions and demands. In addition, it is important to have full support and collaboration of classroom teacher in reading activities. Other things that classroom teachers work on during storybook reading may affect children's focus on reader and book. Readers should be prepared for interruptions. It is important that readers have experience and class management skills.

### **Directions for Future Research**

Researchers may consider adding a 'warm up' book to get used children to the intervention. In addition, a 'closing' week which each book is read one more last time would work better to refresh their memory. It is important that children also get used to readers. They have figuration of how different readers will respond their questions and demands. It is strongly recommended that readers should be prepared the scripts before reading. An interruption on reading fluency may cause losing children's attention on books. During assessments and book questions, it is observed that children tend to provide reasons to question which start with 'why'. Script questions and assessment questions which are related to emotion recognition may be made flexible or should be started with 'how' instead of 'why'.

## **Conclusions**

This study aimed to find out the effectiveness of storybook reading interventions on children's emotion recognition and emotion vocabulary knowledge. This case study have been approved that interventions which occur in children's naturalistic environment have more positive effects on children. At the same time, this study shows that reading interventions in a small group have been improved children's emotion recognition and emotion vocabulary knowledge. Research team of this case study wish that this research will lead new researches which more focus on using storybooks readings as an intervention method to teach children social and emotional skills.

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## BIOGRAPHICAL SKETCH

Merve majored in elementary education for her bachelor's degree. While focusing on her master's degree in early childhood education, she was awarded with a scholarship to complete her master's degree in abroad. Merve received her Master of Arts in Education Degree in the fall 2017 while simultaneously working for Baby Gator Child Development and Research Center as an assistant teacher and Florida Museum of Natural History as an education assistant.