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PARENT IMPLEMENTED ADAPTED DIALOGIC READING WITH PRESCHOOLERS WITH AUTISM

A Thesis
Presented to
The Faculty of the Department of Communication Sciences and Disorders
Western Kentucky University
Bowling Green, KY

In Partial Fulfillment
Of the Requirements for the Degree
Master of Science

By
McKenzie Ward

May 2018

PARENT IMPLEMENTED ADAPTED DIALOGIC READING WITH PRESCHOOLERS WITH AUTISM

Date Recommended March 19, 2018

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Dean, Graduate School Date 4/20/18

In dedication to Michael Smith for being fearless in the face of adversity, finding your voice, and using that voice to inspire those around you. I will forever be grateful for the impact you had on my life.

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CONTENTS

LIST OF FIGURES

LIST OF TABLES

PARENT IMPLEMENTED ADAPTED DIALOGIC READING WITH PRESCHOOLERS WITH AUTISM

McKenzie Ward May 2018 44 Pages

Directed by: Drs. Janice Smith, Lauren Bland, and Kimberly Green

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The current study examined the role of a novel, adapted dialogic reading curriculum and its impact on preschoolers with autism and their interactions with their parents during shared book reading. The aim of this study was to determine the impact of the curriculum on the effects of child social reciprocity and parents' feelings of competence and confidence when trained on implementation strategies. Pre- and post-test measures were conducted for four parent-child dyads to measure the impact of adapted dialogic reading on child social reciprocity and parents' feelings of competence and confidence. Although the sample size was small, clear trends were seen suggesting adapted dialogic reading methods may result in greater increases in social reciprocity behaviors such as contingent responses to questions and joint attention during shared book reading. Positive trends also suggest that when parents are trained to implement adapted dialogic reading strategies, their feelings of competence and confidence are increased.

INTRODUCTION

The prevalence of Autism Spectrum Disorder (ASD) has significantly increased to 1 in 68 children being diagnosed with ASD, according to the Center for Disease Control (2017). Children with ASD often present with mild to severe deficits in speech and language, joint attention, social reciprocity, and overall social communication, making it difficult for them to interact and communicate (American Speech-Language-Hearing Association, 2006). These deficits, if not addressed, can hinder the child's ability to comprehend, attend to, and initiate interactions, all components necessary for emergent literacy. Research shows that children with ASD have a more difficult time developing the skills needed to be a successful reader (Lanter & Watson 2008).

There are few studies that examine emergent literacy skill development in young children with ASD (Lanter, Watson, Erickson, & Freeman 2012). However, a recent study showed that children with autism spectrum disorders increase performance in reading activities when dialogic reading is adapted to meet their specific needs (Whalon, Martinez, Shannon, Butcher, & Hanline, 2015). Dialogic reading is a shared reading intervention technique educators and parents use to increase verbal participation and duration of engagement with printed materials with children. A prompting hierarchy is implemented during reading to elicit responses while engaging in shared reading experiences and has been found to increase emergent literacy skills (Fleury, Miramontez, Hudson, & Schwartz, 2014). A study conducted by Whalon et al. (2015) determined that when dialogic reading is adapted to meet the needs of a child with autism, his reading comprehension and verbal participation improve significantly. Their research supported the idea that joint attention, inference making, and interactions are key elements when

conducting dialogic reading with children with autism. They were able to facilitate these key elements by adapting a prompting hierarchy and adding visual supports to materials used by educators in the child's preschool environment.

Dialogic reading has also been effectively implemented by parents and caregivers of typically developing preschoolers in the home (Briesch, Chafouleas, Lebel, & Blom-Hoffman, 2008). Increased shared reading activities in the home environment led to increased emergent literacy outcomes as well as positive parent/caregiver attitudes (LaCour, McDonald, Tissington, & Thomason, 2008). They observed positive correlations between home and school environments when parents/caregivers were trained to use dialogic reading techniques to elicit responses as an educator would in a preschool setting. A study conducted by Huebner and Payne (2010), showed that parents/caregivers, who were trained in dialogic reading with their two to three year olds, continued to use this strategy more than two years after the study was completed. Research indicates that parents of typically developing children have effectively implemented dialogic reading in the home. The literature also provides evidence of adapted dialogic reading effectively implemented in the classroom with preschoolers with autism.

This study aims to investigate the effectiveness of adapted dialogic reading to improve social reciprocity in preschoolers with autism and determine if parents' feelings of competence and confidence change after being trained to implement adapted dialogic reading strategies. This study will advance knowledge in the field of speech-language pathology by providing professionals with a framework to empower families of children

with autism in promoting growth in the areas of literacy and social communication in the home environment.

LITERATURE REVIEW

Shared Book Reading

Shared book reading is an interactive reading experience where children are involved in the joint reading of a book guided by a teacher, parent, or other adult. During shared book reading, an adult reads a book to an individual or group of children and uses one or more planned or structured interactive techniques to actively engage the children in the reading. These techniques include sequencing the events in the story, answering questions, and/or giving explanations. Shared reading scaffolds a child's reading experiences and enhances his comprehension, vocabulary, language development, and emergent literacy skills (Lanter, Watson, Erickson, & Freeman, 2012). Studies have provided evidence that, when parents engage their child in shared reading, not only does the child's language and comprehension increase, but social interactions and emotional attachments with the parent are strengthened as well (Sim & Berthelsen 2014; Son & Tineo, 2016). It has further been determined that shared book reading positively affects children who are at-risk for developing a reading disability or who have a communication impairment (Kaderavek, Pentimonti, & Justice, 2014).

Communication impairments are prevalent in children with autism. Children with autism often have difficulty with receptive and expressive language and overall social communication. These impairments affect the child's ability to respond to questions, initiate interactions, and maintain joint attention during shared reading with an adult. Studies have been conducted with children with autism using shared reading

interventions, such as dialogic reading (Fleury, Miramontez, Hudson, & Schwartz 2014; Kaderavek, Pentimonti, & Justice, 2014).

Dialogic Reading

Dialogic Reading (DR) is an evidence-based shared reading intervention that enhances reading comprehension and language skills that are necessary for future readers. DR encourages the adult to become an active listener and facilitate language-learning experiences during reading (Huebner & Payne 2010). This is facilitated through the use of CROWD and PEER prompting methods developed by Whitehurst and colleagues (Lonigan & Whitehurst, 1998). These prompting hierarchies were taught to teachers and parents to use with children while reading. CROWD stands for completion, recall, open-ended, Wh-, and distancing. The CROWD method uses different types of questions to prompt child response. When presenting a child with a completion prompt, the adult reader leaves a blank at the end of a repeated or predictable sentence for the child to complete. A recall prompt requires the child to recall information previously given from the book. Open-ended prompts require the child's response to be in his or own words about something that is going on in the book. Wh- questions include who, what, where, when, and why and target specific vocabulary from the book. Distancing prompts are questions to help children relate to the book and think about their own personal experiences. The PEER method is used to help adult readers facilitate an interaction using a scaffolding technique to elicit language (Whalon, Delano, & Hanline 2013). The adult first prompts the child using a CROWD prompt; evaluates the child response; expands the child utterance by adding information, and then repeats the prompt to make

sure the child has acquired the information (LaCour, McDonald, Tissington, & Thomason 2013).

Extensive research has been conducted to show the efficacy of DR for increasing language skills in children (Maul & Ambler 2014). DR is shown to positively affect language and literacy, leading to increased child enjoyment of reading. This effect facilitates the cognitive and social development of the child as well. Studies for dialogic reading have been conducted with typically developing children and children at risk from low-income and middle-income families in the school and home environment (Pillinger & Wood 2014; Whalon, Hanline, & Davis, 2016).

Joint Attention

Individuals with ASD often have difficulty with joint attention. Joint attention (JA) is the capacity to coordinate interactions with those of another individual (Whalon, Martinez, Shannon, Butcher, & Hanline, 2015). Deficits in joint attention include difficulty adapting to people in social environments, limited occurrences of shared attention, inability to properly manage emotional behavior, reduced ability to seek out comfort and interaction from others, and limited ability in taking another person's perspective and empathizing (American Speech-Language Hearing Association, 2006). Joint attention is a fundamental component to social and communication development, and when addressed in children with ASD, can improve areas such as language, expression, and initiation in social interactions (Kryzak, & Jones, 2015). There are two types of joint attention: response to joint attention (RJA) and initiating joint attention (IJA). Response to joint attention is triadic in which an individual follows the gaze, gesture, or direction of another in order to focus on the same object or task at hand

(Mundy, & Newell, 2007). Initiation of joint attention is dyadic and involves individuals engaging in conversation-like behaviors (Mundy, & Newell, 2007). These types of joint attention are present in shared reading experiences, like dialogic reading. In a dialogic reading encounter with a child, the adult reader draws the child's attention to a certain component in the book by prompting with a question or gesturing at a picture. This is an example of triadic joint attention during shared reading. When the adult reader asks more abstract questions during reading, this allows the child to initiate and engage in conversation with the adult. This is an example of dyadic joint attention.

Social Reciprocity

Social reciprocity has also been found to be impaired in children with ASD. Social reciprocity is the social engagement between two or more individuals. Deficits in social reciprocity include: difficulty initiating and responding to bids for interaction, reduced turn-taking in conversation, and infrequent contingent responses to bids for interactions by others (ASHA, 2006). These behaviors are critical components for effective social communication and formation of meaningful relationships. Oftentimes, children with ASD have difficult behaviors and a lack of aforementioned social behaviors that make it challenging for them to connect with peers, teachers, and family members. These behaviors carry over into their learning experiences in the classroom and the home environment. Reading is just one academic component that is affected. For parents especially, reading with their children can be difficult and frustrating, due to the child's lack of motivation or ability to attend to during a reading experience. Parents may be hesitant to read with their children if they have difficulty attending or become aggressive

during book readings (Fleury, 2015) and, as a result, forego reading with their child altogether.

Adapted Dialogic Reading (ADR).

Whalon and colleagues developed an adapted dialogic reading program for children with ASD, known as RECALL, or Reading to Engage Children with Autism in Language and Learning (2015). Whalon used this approach in two separate studies targeting two different environments. In Whalon's first study, the preschool population was targeted. The study aimed to "measure correct, spontaneous responses to fact- and inference-based children with ASD" (Whalon, Martinez, Shannon, Butcher, & Hanline, 2015, p. 104). Whalon's adaptation of dialogic reading included the use of visual supports, an adaptation of the instructional sequence of PEER to PEEP (prompt, evaluate, expand, and praise), and a four-level prompting hierarchy. The four-level prompting hierarchy, after asking a question, required the adult to first provide a three-picture selection. If the child did not respond or responded incorrectly, then the adult would cover one of the picture choices and provide a binary choice. If the child answered incorrectly, the adult would imitate a direct model of the correct answer and what he/she wanted the child to say. Lastly, if the child failed to select the correct picture, the adult would use hand-over-hand to assist the child in selecting the correct visual. The adult would then expand on the child's response and provide praise. These key components of Whalon's study supported joint attention, interactions, and inference making.

In a preliminary study, also conducted by Whalon, the targeted population only varied based on the environment. Whalon used the method she developed and implemented it in a single case with a parent-child dyad in the home environment. This

study looked at the effects of a child with ASD's spontaneous responses when presented with an adapted dialogic reading interaction by the parent in the home. The majority of data collected targeted the child's ability to respond and answer the questions given. Whalon did report that the parent was comfortable in using the strategies with her child and enjoyed the intervention experience (Whalon, Hanline, & Davis, 2016).

Current Study

Very few studies have examined the effects of adapted dialogic reading with the preschool-aged population. Current research has examined the use of adapted dialogic reading in the preschool and home environment with children with ASD (Whalon, Hanline, & Davis 2008; Whalon, Martinez, Shannon, Butcher, & Hanline, 2015), measuring child spontaneous utterances, not specifically targeting social reciprocity and parent views on their competence of strategies utilized and confidence in implementation. Whalon's research in the home environment (2015) was limited to a single case study, which was completed in a six-week period. This study aims to further Whalon's study by increasing population size and adapting her methods in adapted dialogic reading to meet the needs of the child and parent over a 10-week period.

METHOD

Participants

This study sought to adapt and further a study conducted by Whalon (2015), which targeted the correct, spontaneous utterances of preschoolers with autism when presented with an adapted dialogic reading interaction. In order to further Whalon's study, which predominantly targeted intervention in the public preschool environment

and a single case study conducted with a family in the home environment, the sample size was increased and a novel curriculum was created. Following approval from the institutional review board, parent-child dyads were recruited via a child preschool program located on a southeast university's campus and the university's communication disorders clinic. All child participants had a reported diagnosis of autism and functional speech. Four parent-child dyads participated in this study. Family participants were from varying socioeconomic backgrounds.

Family 1 consisted of a two-parent home. Child 1 participating in the study was a 4-year-old Caucasian male who was diagnosed by a pediatrician at the age of three. Child 1 attended a public preschool and a preschool program on the university's campus. Child 1 received speech therapy from the university's clinic during the time the study took place. Both parents participated in the study. Parent A and Parent B were Caucasian and from a low socioeconomic background. Both parents chose to participate in the study due to their availability.

Family 2 consisted of a two-parent home with two children. Child 2 was a 4-year-old African American male who was diagnosed by a pediatrician at the age of three. Child 2 attended a local public preschool and received services for speech and occupational therapy. Child 2 also received services from the university's communication disorders clinic two times a week. Child 2 used immediate and delayed echolalia, with infrequent spontaneous utterances. The parent participant was an African American female from a middle socioeconomic background. This parent was also participating in Hanen's More Than Words® program at the time of this study.

Family 3 consisted of a two-parent home with two twin children (one male, one female). Child 3 participated in the study and was a five-year-old Caucasian male who was diagnosed by a child evaluation center at the age of three. Child 3 attended kindergarten at a public elementary school five days a week. Child 3 was recruited from the university's preschool/kindergarten after school program where he attended two days a week. Child 3 received speech therapy services from the university's communication disorders clinic and services from his elementary school. The parent participant was a Caucasian female from an upper-middle socioeconomic background. This parent was participating in the Hanen's More Than Words® program at the time of this study.

Family 4 consisted of a single-parent home with two children who both had a reported diagnosis of autism. Child 4A was a four-year-old Caucasian male and was diagnosed with autism at the age of three. Child 4A attended a preschool at a public elementary school, receiving speech therapy services. Child 4A also received applied behavioral analysis (ABA) therapy from a private clinic in the same urban community. Child 4B was a three-year-old Caucasian male who was diagnosed at the age of two. Child 4B attended a local preschool center and received speech and ABA therapy services from the same private clinic as his brother. The single parent was a Caucasian female from a low socioeconomic background, unemployed at the time, and attending a local university.

In addition to child and parent participants, each weekly home visit included a speech-language pathologist graduate student (primary investigator) and one undergraduate speech-language pathologist (student observer). The primary investigator and student observer were responsible for observing book readings during home visits

and providing feedback to the parent in order to increase parent-child success. Data collectors were trained on how to recognize and code joint attention, social reciprocity behaviors, and parent competence from observation of the video recordings collected from the family participants each week.

Materials

Printed information on the study, consent forms, pre- and post-study surveys, adapted dialogic reading curriculum, prompting hierarchy, ten age-appropriate storybooks, and parent feedback forms were used for each family.

Surveys. A Family Early Literacy survey was developed by the primary investigator and measured the accessibility of literacy materials that the child participants had in and outside of the home environment (see Appendix A). The primary investigator also developed the Parent Experiences with Shared Book Reading survey (see Appendix B). This survey measured the parents' feelings of confidence and competence during shared reading experiences with their child(ren) prior to the start of the study.

Storybooks. Ten age-appropriate storybooks written by the same author were chosen for this study. These books were selected based on accessibility, popularity with preschool-aged children, and ability to stimulate intellectual growth. After the books were selected, an informal lexical diversity analysis was conducted for each book (see Appendix C). This was used to determine the order in which the books would be presented to the families. The first week started with the book with the least amount of lexical diversity, one that was written with repetitiveness and explored basic concepts such as colors and animals. As the weeks progressed, the books were presented by

growing lexical diversity. The storybook used to collect baseline data contained the most lexical diversity and more abstract concepts and was given to parents to read to their child before strategies were given. This book was also presented at the end of the study in order to compare pre- and post-study implementation.

Adapted dialogic reading curriculum. The families were provided with a novel curriculum for the ten age-appropriate storybooks that they received. The curriculum included questions and prompts adapted from those used for dialogic reading, which corresponded with the book used for each week of reading. Each week provided the parent with Level 1, Level 2, and Level 3 questions to ask their child during reading (see *Figure 1*). Each question was coded with a specific color to help prompt the parent while reading and to provide a reminder as to what type of question was being asked. Level 1 questions included completion prompts and Wh- questions. Level 2 questions required the children to recall from what had been previously read in the book. Level 3 questions included open-ended and distancing questions. These types of questions are all components of a dialogic reading intervention, divided into levels and presented to the children systematically.

Table 1. Prompting Hierarchy

Difficulty Level	Prompting Type(s)	Example Prompt
Level 1	Wh- Question These prompts usually begin with what, where, when, why, and how questions. Like open-ended prompts, wh- prompts focus on the pictures in books.	What color is the bear?
	Completion Prompt You leave a blank at the end of a sentence and get the child to fill it in. These are typically used in books with rhyme or books with repetitive phases.	The bear is _____.
Level 2	Recall Question These are questions about what happened in a book a child has already read.	What did the bear do after eating the honey?
Level 3	Open-Ended Question These prompts focus on the pictures in books. They work best for books that have rich, detailed illustrations.	Why do you think the bear wanted to be friends with the mouse?
	Distancing Question These ask children to relate the pictures or words in the book they are reading to experiences outside the book.	Remember when there was someone who didn't want to be your friend at school? How did that make you feel?

Parents were given ten questions to ask their child. The questions remained the same for each book for each day of reading. However, parents were encouraged to provide additional questions of their own during the reading interactions. The curriculum

guide also provided families with opportunities to engage their child in family extension activities that were listed after each day of reading. These activities were optional and provided parent-child engagement activities that were based on the day's reading. Activities included gross motor and cooking activities, songs, poems, and crafts. These activities further enhanced parent opportunities to engage their child, promoting carryover of social reciprocity behaviors from shared book reading into their interactions as well as carry over basic concepts from the books.

Visual supports. Each book in the study included visual supports used to increase child participation and actively engage them in the reading experience. Visual supports were available for each question in the curriculum guide (see Appendix D). If the child did not answer after sufficient wait time, then the parent presented the child with a three-picture selection, with the parent pointing at each picture and naming the choices. The structure of the visual supports was developed similar to those used in Whalon's study (2015). The visuals were adapted by the primary researcher by adding Velcro to allow the child to complete an exchange by selecting the correct answer, removing it, and placing it in the answer box.

Parent feedback forms. Parent feedback forms were filled out for each day of reading by the parent (see Appendix E). On these feedback forms, the parent noted the date, duration of reading, and checked if the optional family extension activity was completed for each day. The feedback form also provided a rating scale for the parent to rate their views on the child's performance as well as their own competence using the curriculum guide and visuals to support their child during reading. A section at the bottom of the form (Comments) was made available for the parents to write about their

interactions in a narrative format. This section also provided parents the opportunity to provide feedback to the primary investigator. Forms were collected at the end of the week during home visits. The primary investigator addressed concerns and/or questions during this time.

Procedures

Baseline collection. Prior to the start of the study, the primary investigator collected baseline data in the participants' home environments, with the exception of *Family 1*. Baseline data collection required the parent-child dyad to engage in a shared reading experience while the primary investigator recorded the interaction. Parents were provided with the same storybook and asked to read to their child as they typically would. *Family 1* was also presented with the same book to read to their child. This was completed in a neutral environment, due to underlying circumstances, outside of the home. Both parents were present during baseline, with Parent A completing the reading.

Parent training. A training day was implemented, lasting approximately three hours. Parents were trained on the techniques and strategies they would use during the study, specific to the adapted dialogic reading curriculum. Parents were instructed how to implement the curriculum and given time to practice. Upon completion of the training, parents were given the curriculum guide, visual supports, parent feedback forms, and book for Week 1. In-home observations were scheduled accordingly for observation and feedback by the primary investigator and to exchange the following week's materials. The parents were informed that the study would last approximately ten weeks and they would receive all ten storybooks and the curriculum in return for their participation following completion of the study.

Intervention. Parents were the primary interventionists in this study. Parents were required to engage their child in five days of reading for each book. They were asked to follow the curriculum guide, use the visual supports when needed, and record their reading interactions. Each session of reading was recorded using a video camera or personal cellphone and uploaded them to a secure, private channel, only accessed by the primary investigator, two data collectors, and a supervising speech-language pathologist. Parents were also responsible for completing the parent feedback forms for each day of reading. On the fifth day of reading, the primary investigator and undergraduate student observer visited each home to observe a book reading and provide feedback for each family. The families then exchanged materials with the researchers and collected the next book, curriculum guide, and visual supports. Parent feedback forms were collected and filed accordingly.

Observation. Each week the primary investigator and undergraduate student observer entered each family's home to observe a parent-child reading interaction, provide feedback, and exchange materials. During observation, the primary investigator took notes on areas that the parents could improve and strategies that may have been effective for their child. This information was shared with the parents upon completion of the reading. Parents were given the opportunity to ask questions, which were addressed by the primary investigator. Observations were also conducted outside of the home by watching the uploaded videos. The primary investigator (Observer 1) and two undergraduate students (Observer 2 and Observer 3) analyzed and coded the video recordings using the social reciprocity and parent competence checklists.

Measures

Child social reciprocity behaviors were measured from parent intervention video recordings using a social reciprocity checklist developed by the primary investigator (see Appendix F). These checklists used a frequency count to determine the number of occurrences a specific behavior took place during each reading. These were compared to the baseline data and targeted frequency of turn-taking in conversation, joint attention (both parent and child actively engaged in book reading), contingent responses to questions asked by parents, child initiation of interaction with parent, and child making eye contact or looking in the direction of the parent when the parent directed conversation towards him.

Parents' competencies were measured using the same video checklist. This analysis was completed separately by each observer and then discussed to finalize the data. These were compared to the baseline data and targeted the frequency of parent competencies, such as providing sufficient wait time for child responses, praising responses, providing picture selection and/or binary choices when appropriate, and adding additional questions not given in the curriculum guide. Measures of competence and confidence were also achieved through the pre- and post-study survey (Parent Experiences with Shared Book Reading).

Inter-observer agreement was used for analysis of all video recordings. Observer 1 watched all videos recorded by the parents and analyzed and coded them based on the social reciprocity/parent competence checklist. Observer 2 reviewed each video recording using the same methods. Observer 3 also viewed each video and completed the checklist. Discussion took place to determine significant discrepancies in data collection and to finalize analysis of each video.

RESULTS

The purpose of this study was to determine if child social reciprocity increased as a result of parent training and the adapted curriculum. This study also sought to determine if parents' feelings of competence and confidence increased when trained on the implementation of the adapted dialogic reading curriculum. These questions were answered using frequency counts with repeated measures to determine changes in child social reciprocity behaviors and parent perception of competence and confidence, as well as visual inspection of the data for the four parent-child dyads. The tables and figures below illustrate these results.

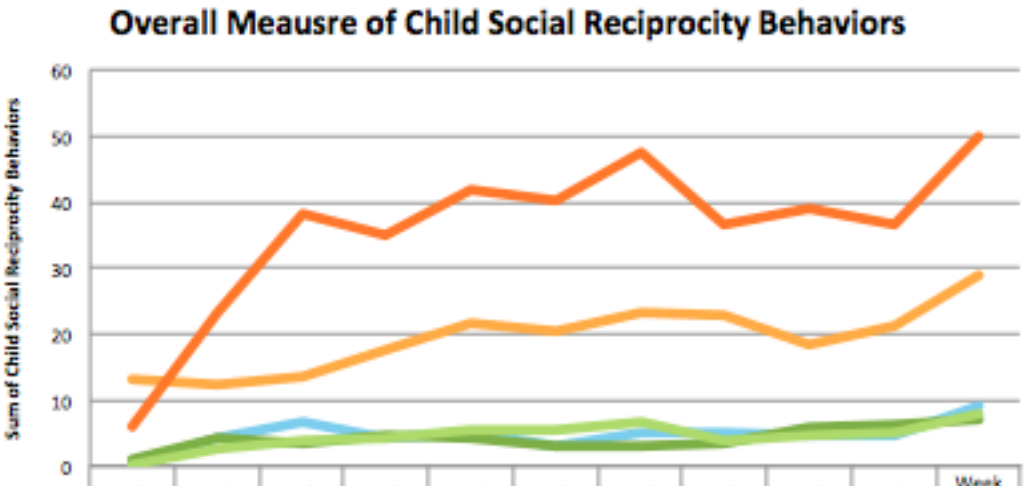
Demographics of the sample

Five parents participated in this study, four Caucasian and one African American. Two families were from a low socioeconomic background, one family from a middle socioeconomic background, and one family from an upper-middle socioeconomic background. All child participants were between the ages of three- and six-years-old and received additional services throughout the study. Participants were recruited from a local university's early learning center. Two parent participants were receiving Hanen's More Than Words training during the duration of the study.

Social reciprocity

All child participants increased social reciprocity. These behaviors were collected via the video checklist, as well as the parent survey. The video checklist recorded the

frequency that each behavior occurred. Means of each behavior were calculated for each week of reading and analyzed for changes. Figure 2, below, displays the sum of all child social reciprocity behaviors for each week of reading and signifies changes made by the group, overall. Child 1's social reciprocity behaviors were not analyzed due to Family 1's lack of compliance during data collection (only 4 out of 45 reading encounters were reported).

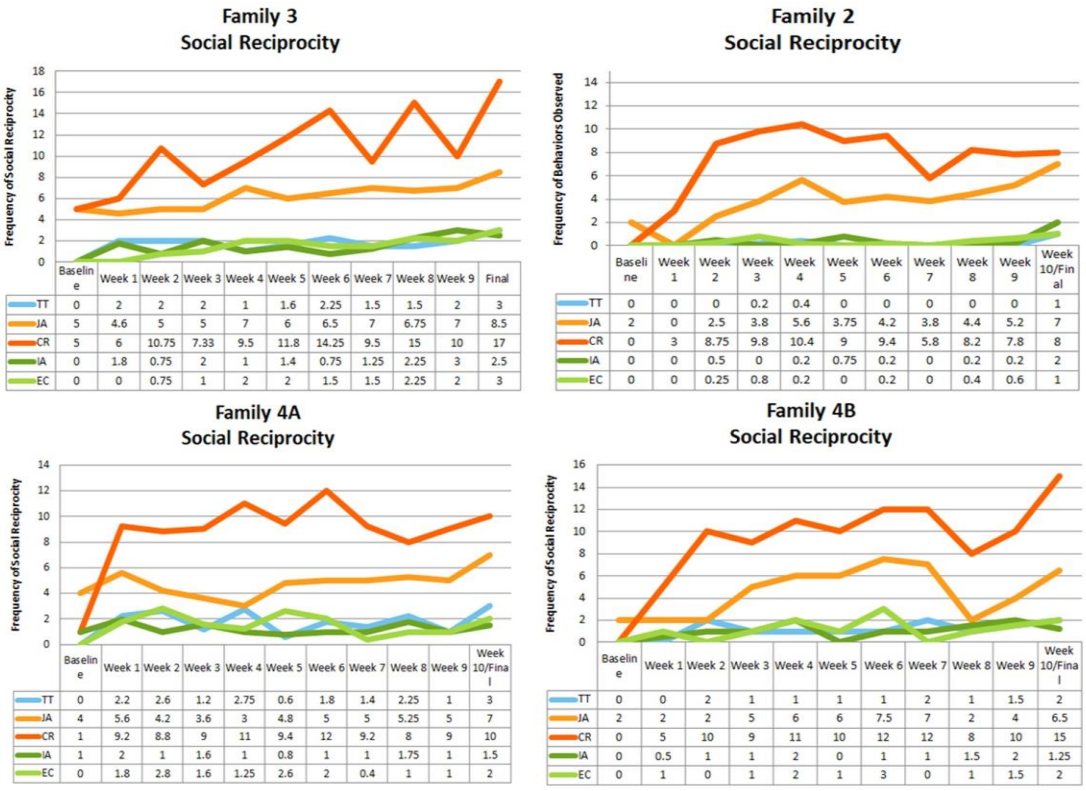


	Baseline	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/Final
TT	0	4.2	6.6	4.4	5.15	3.2	5.05	4.9	4.75	4.5	9
JA	13	12.2	13.7	17.4	21.6	20.55	23.2	22.8	18.4	21.2	29
CR	6	23.2	38.3	35.13	41.9	40.2	47.65	36.5	39.2	36.8	50
IA	1	4.3	3.25	4.6	4.2	2.95	2.95	3.25	5.7	6.2	7.25
EC	0	2.8	3.8	4.4	5.45	5.6	6.7	3.8	4.65	5.1	8

Figure 1. Sums of Child Social Reciprocity Behavior

The sums for turn taking in conversation, for ten weeks, ranged from 0 occurrences to 9 occurrences. Joint attention frequencies ranged from 13 occurrences to 29 occurrences. Contingent responses to questions asked by the parents indicated variations of 6 occurrences to 50 occurrences. Ranges for child initiations were indicated to be 1

occurrence to 7.25 occurrences. Eye contact/directional gaze varied frequencies across the ten week study, ranging from 0 occurrences to 8 occurrences.



Family 3	Baseline	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Final
TT	0	2	2	2	1	1.6	2.25	1.5	1.5	2	3
JA	5	4.6	5	5	7	6	6.5	7	6.75	7	8.5
CR	5	6	10.75	7.33	9.5	11.8	14.25	9.5	15	10	17
IA	0	1.8	0.75	2	1	1.4	0.75	1.25	2.25	3	2.5
EC	0	0	0.75	1	2	2	1.5	1.5	2.25	2	3

Family 2	Baseline	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/Final
TT	0	0	0	0.2	0.4	0	0	0	0	0	1
JA	2	0	2.5	3.8	5.6	3.75	4.2	3.8	4.4	5.2	7
CR	0	3	8.75	9.8	10.4	9	9.4	5.8	8.2	7.8	8
IA	0	0	0.5	0	0.2	0.75	0.2	0	0.2	0.2	2
EC	0	0	0.25	0.8	0.2	0	0.2	0	0.4	0.6	1

Family 4A	Baseline	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/Final
TT	0	2.2	2.6	1.2	2.75	0.6	1.8	1.4	2.25	1	3
JA	4	5.6	4.2	3.6	3	4.8	5	5	5.25	5	7
CR	1	9.2	8.8	9	11	9.4	12	9.2	8	9	10
IA	1	2	1	1.6	1	0.8	1	1	1.75	1	1.5
EC	0	1.8	2.8	1.6	1.25	2.6	2	0.4	1	1	2

Family 4B	Baseline	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/Final
TT	0	0	2	1	1	1	1	2	1	1.5	2
JA	2	2	2	5	6	6	7.5	7	2	4	6.5
CR	0	5	10	9	11	10	12	12	8	10	15
IA	0	0.5	1	1	2	0	1	1	1.5	2	1.25
EC	0	1	0	1	2	1	3	0	1	1.5	2

Figure 2. Parent-Child Dyad Social Reciprocity Outcomes

Results for turn taking. An incidence of turn taking was considered when the parent initiated an interaction with their child and the child responded appropriately, outside of the requirements of the curriculum. For example, a parent asked a question about the book that was not in the curriculum and the child responded appropriately. Turn taking for Family 1 was not analyzed due to lack of compliance during data collection. Turn taking for Family 2 varied from zero instances to one instance outside of the requirements of the curriculum. Turn taking for Family 3 ranged from zero turns

taken to three turns taken in conversation. Family 4A's turn taking in conversation ranged from zero turns at baseline to three turns taken. Family 4B's turn taking ranged from zero to two turns taken. All children were observed to increase in the child social reciprocity behavior of turn taking.

Results for joint attention. Joint attention (JA), for the requirements of this study, was defined as the parent initiating bids for joint attention using a dialogic reading prompt or gestures to attract attention to the book, and enabling a response from the child to actively attend. Results for joint attention for Child 1 were not analyzed due to lack of compliance during data collection. Joint attention ranged from zero to seven instances for Child 2. Child 3's joint attention varied from 4.6 to 8.5 occurrences. Joint attention ranging from three occurrences to seven occurrences was recorded for Child 4A. Lastly, Child 4B varied joint attention from two occurrences to 7.5 occurrences.

Results for contingent responses. Contingent responses were elicited by adapted dialogic reading prompts (Level 1, Level 2, or Level 3 questions). Responses were not measured for accuracy, but the frequency in which responses were given when asked questions during the book reading. Based requirements of the study, parents were to ask ten questions that were provided for each book. Parents were allowed to ask more than the ten questions provided. Results for contingent responses for Child 1 were not analyzed due to lack of compliance during data collection. Child 2's contingent responses to parent questions ranged from a frequency count of zero to a count of 10.4. Contingent responses ranging from 5-17 were recorded for Child 3. Child 4A's contingent responses varied from one to eleven occurrences and Child 4B's ranged from zero occurrences to fifteen.

Results for child initiation. For this study, occurrences of child initiation were counted when the child participant initiated an interaction with the parent reader, by asking a question or making a statement that was directed towards the parent. As previously mentioned above, Child 1's results were not analyzed due to lack of compliance during data collection. Child 2's occurrences of initiations ranged from 0 to 2. Occurrences of initiations for Child 3 varied from 0 to 3. Child 4A's initiation of occurrences ranged from 0.8-1.75 and Child 4B's ranging from 0-2 occurrences.

Results for eye contact/directional gaze. For the purpose of this study both eye contact/directional gaze were counted when child-parent eye contact was made and/or the child looked in the general direction in which the parent was talking when conversation was directed towards them. As mentioned above, Child 1's social reciprocity behaviors were not analyzed due to lack of compliance during data collection. Child 2's instances of eye contact/directional gaze were minimal and varied from 0 to 0.8 instances. Range for eye contact/directional gaze pertaining to Child 3 were indicated as 0 occurrences to 2.25 occurrences. Child 4A varied his ability to make eye contact and/or use directional gaze with a frequency range of 0 instances to 2.6 instances. Last, Child 4B's varied from 0 occurrences to 3 occurrences.

Parents' feelings of competence and confidence

Parents' feelings of competence and confidence were measured using the Survey of Parent Experiences with Shared Book Reading (see Appendix B). This survey was broken down into six categories: Parents' feelings of competence, parents' feelings of confidence, levels of stress and anxiety when interacting with their child, levels of stress and anxiety when reading with their child, adapted dialogic reading parent competency,

and social reciprocity competency. Responses were assigned value based on their reflection of positive or negative perception of the target feeling (e.g. confidence or competence). The scale ranged from +3 to -3 with no zero score. Participants were asked to rate their feelings of confidence and competence and, to best capture their positive or negative perceptions, were not given a neutral (zero) response option.

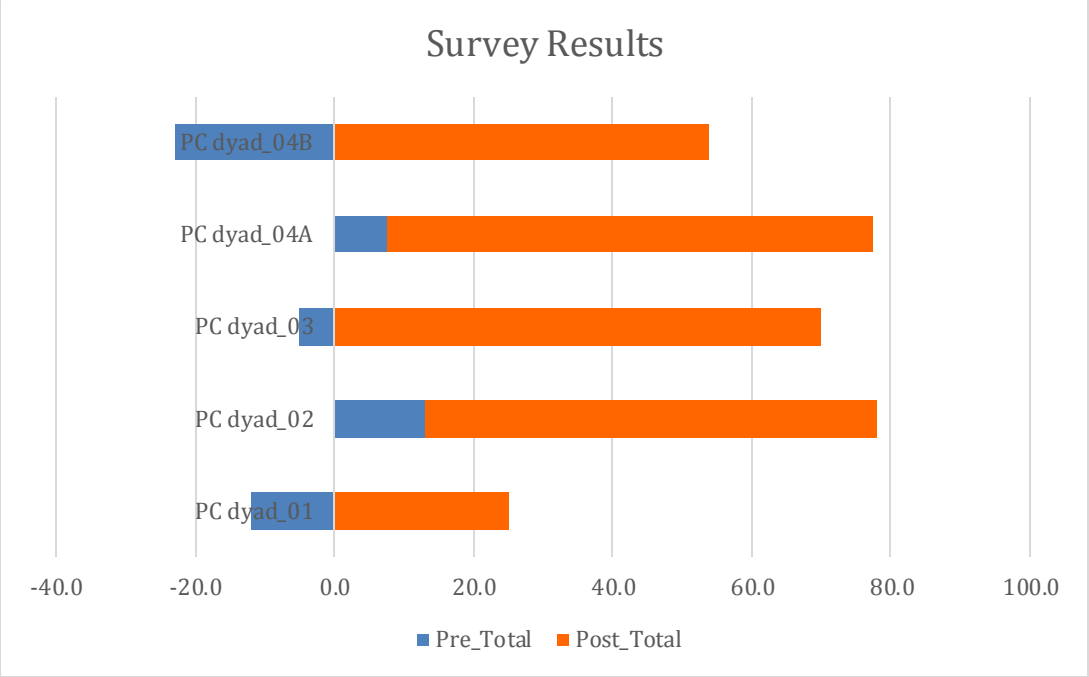


Figure 3. Pre-Post Survey Results

Figure 3, above, shows the overall pre- and post-survey results from each parent-child dyad. Post-study results, overall, show that parents increased their positive perceptions, in comparison to pre-study results. The maximum score a parent-child dyad could receive for positive perception was 84. Prior to training and implementation of adapted dialogic reading strategies, Parent 1 reported an overall, negative perception score (-12.0). Upon completion of the survey post-study, Parent 1 reported an overall positive score (25.0) for a gain of 37 points. Parent 2's pre-survey reported an overall, positive perception score

(13.0). Post-survey reported by Parent 2 showed an increase the positive perception score, for an overall score of 78, with a gain of 65 points. Parent 3 reported a negative perception score (-5.0) on the pre-study survey. Post-study report from Parent 3 indicated a positive perception score (70), for an overall gain of 75 points. Pre-study survey results for Parent 4-Child A reported a positive perception score (7.5) increasing that positive perception score to 70 for an overall gain of 77.5 points. Lastly, Parent 4-Child B reported a negative perception score (-23.0) on the pre-study survey. Post-study survey results indicated a positive parent perception score (54), for an overall gain of 77 points. All families increased their perception scores to reflect a significant positive change for an average gain of 66.3 points.

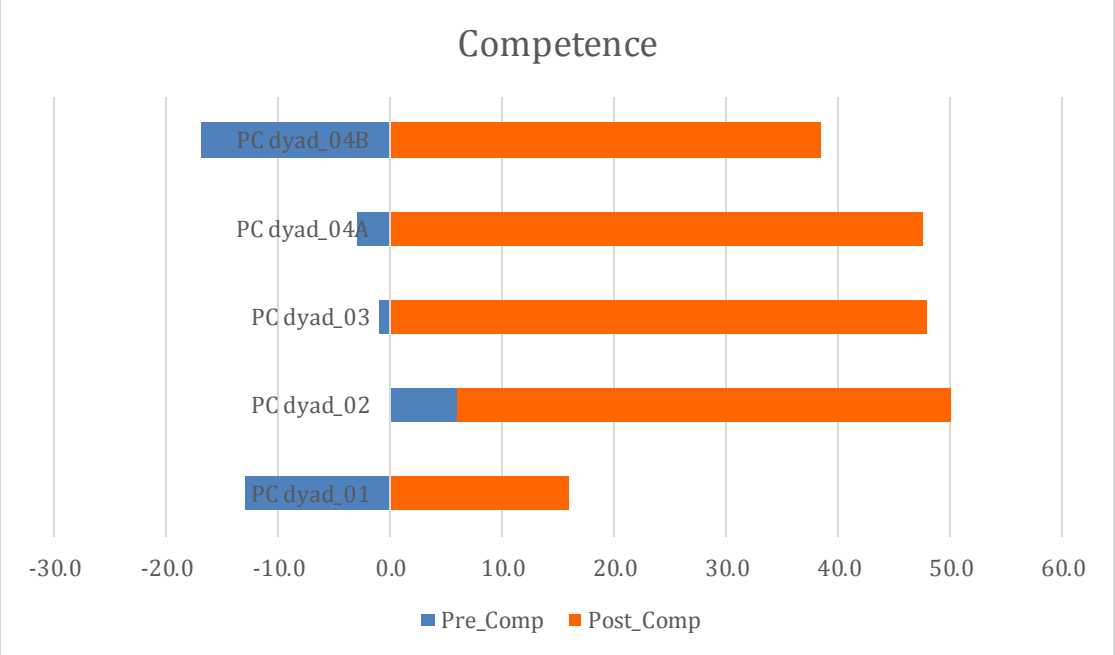


Figure 4. Competence Survey Results

For the category of competence, questions targeted knowledge about the strategy of adapted dialogic reading and joint attention behaviors. Overall competence scores were

obtained by adding scores in each of these knowledge areas with a maximum score opportunity of 54 (ADR=33, SR=21). Parent 1 reported a negative perception of competence for the pre-survey (-13.0) and a positive perception of competence for the post survey measure (16.0). This is a gain of 29 points. Pre-survey competence for Parent 2 was reported as a positive perception (6.0) and a positive perception of competence for the post-survey (44) for a gain of 38 points. Parent 3 reported a negative perception of competence score (-1.0) on the pre-survey and indicated a positive perception competence score on the post-survey (48). This is a gain of 47 points. Parent 4A reported pre-study a negative perception of competence score (-3.0) with a gain of 50.5 points for a post-study positive perception of competence score (47.5). In regard to Child B, Parent 4 indicated on the pre-survey a negative perception of competence score (-17.0), increasing this score significantly on the post-study. Parent 4 reported on the post-survey a positive perception of competence score (38.5) for a gain of 55.5 points. Parent perception of competence increased for all four families. Perception of confidence improved for all families by at least 29 points for an average gain of 44 points.

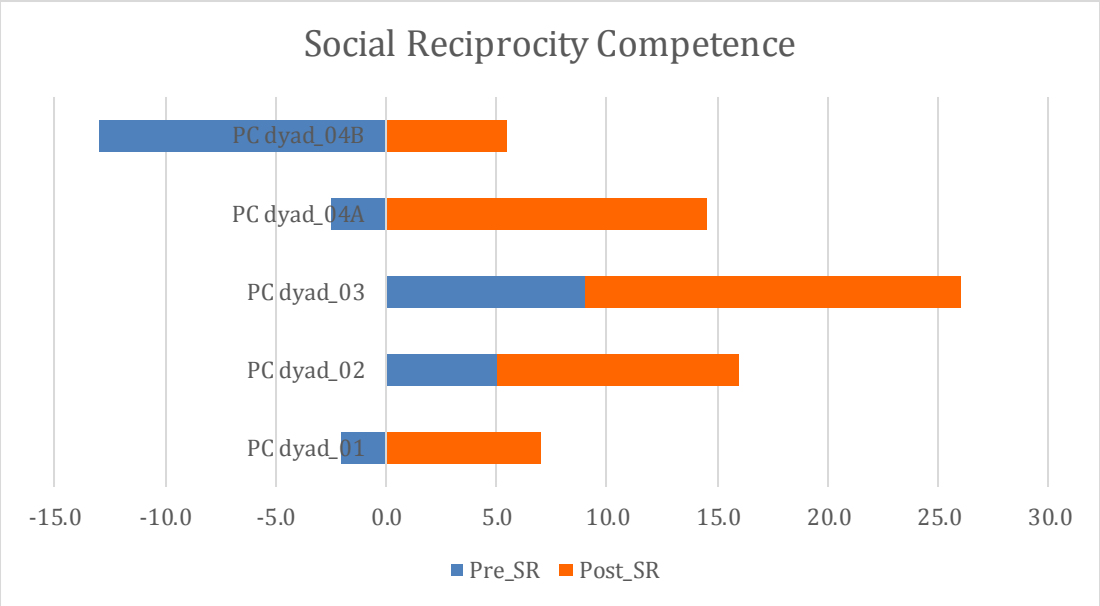


Figure 5. Parent Competence of Social Reciprocity Survey Results

The area of competence, as measured by the parent survey, was broken down into two categories: social reciprocity (SR) competence and ADR competence. Figure 5 depicts parent perceptions of their knowledge about their child's social reciprocity behaviors. Parent 1 reported on the pre-survey a negative SR perception of competence score (-2.0), with gains of 9 points on the post-survey for a positive SR perception of competence score (7.0). A positive SR perception was indicated by Parent 2 on the pre-survey (5.0). Parent 2 increased this positive perception score (11.0) for a gain of 6 points. Parent 3 indicated on the pre-survey a positive SR perception of competence score (9.0), gaining 8 points on the post-survey for an increased positive perception score (17.0). Parent 4 reported a negative SR perception of competence score (-2.5) for Child A pre-study. Post-survey results indicated a gain of 17 points with a positive SR perception of competence score (14.5). Parent 4 also indicated a negative SR perception of competence score (-13.0) for Child B on the pre-survey. With a gain of 18.5 points,

Parent 4 indicated a positive SR perception of competence score (5.5.) on the post-survey.

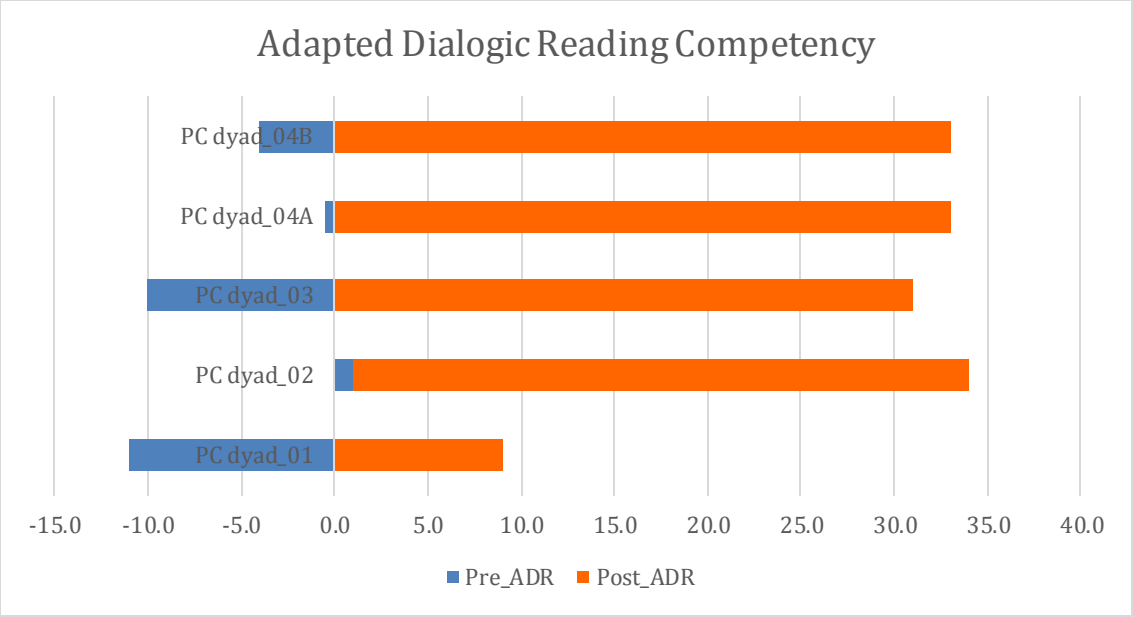


Figure 6. Parent Competence of ADR Survey Results

The figure above depicts parents' perceptions of competence pertaining to adapted dialogic reading methods. Pre-survey perceptions for competence in ADR for Parent 1 was indicated as a negative perception (-11.0). Parent 1 gained 20 points for a post-study ADR competence score (9.0). Parent 2 indicated a positive perception of ADR competence (1.0) on the pre-survey, making significant gains in this area with 33 points, yielding a post-survey positive perception score of 33. Pre-survey perceptions for Parent 3 indicated a negative perception (-10.0). Parent 3 showed growth, gaining 41 points, for a positive perception score of 31 on the post-survey. Negative perception scores were reported for both Parent 4A (-0.5) and 4B (33.0) on the pre-survey completed for each child. Post-surveys for both 4A and 4B indicated positive perceptions scores of 33, with 4A gaining 33.5 points and 4B gaining 37 points. Overall, parent perceptions of their

knowledge about adapted dialogic reading methods and how to implement those strategies significantly increased.

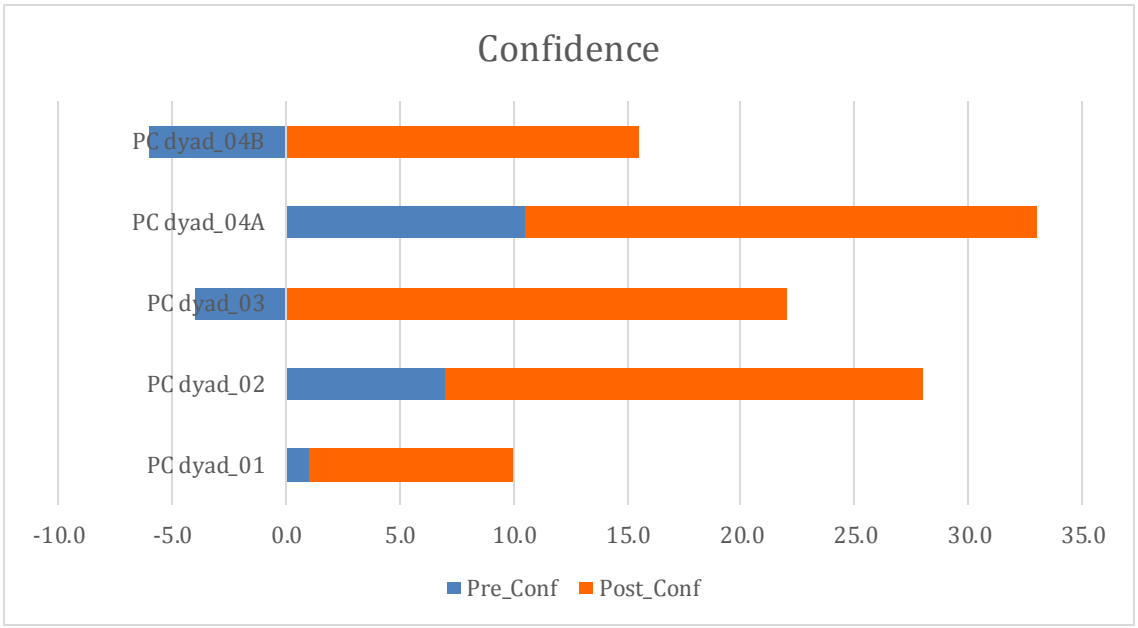


Figure 7. Parent Confidence Survey Results

For the category of confidence, questions targeted parents' perception of their ability to interact, engage, and implement reading strategies with their child. Overall competence scores were obtained by adding scores in each of the confidence areas (GEN=15, READ=15) with a maximum score opportunity of 30. Parent 1 indicated a positive perception of confidence score (1.0) on the pre-survey, with a gain of 8 points, for a positive perception of confidence score (9.0) on the post-survey. Pre-survey confidence for Parent 2 was reported as a positive perception (7.0) and a positive perception of confidence score (21.0) on the post-survey for an overall gain of 14 points. Parent 3 indicated a negative perception of confidence score (-4.0) on the pre-survey, gaining 26 points on the post-survey, for a positive perception of confidence score (22.0). Parent 4A reported a positive perception of confidence score on the pre-survey (10.5), increasing

this score on the post-survey with a gain of 12 points and a positive perception score of 22.5. With 4B, Parent 4 reported a negative perception of confidence score (-6.0) on the pre-survey, increasing by 21.5 points for a post-survey positive perception of confidence score (15.5).

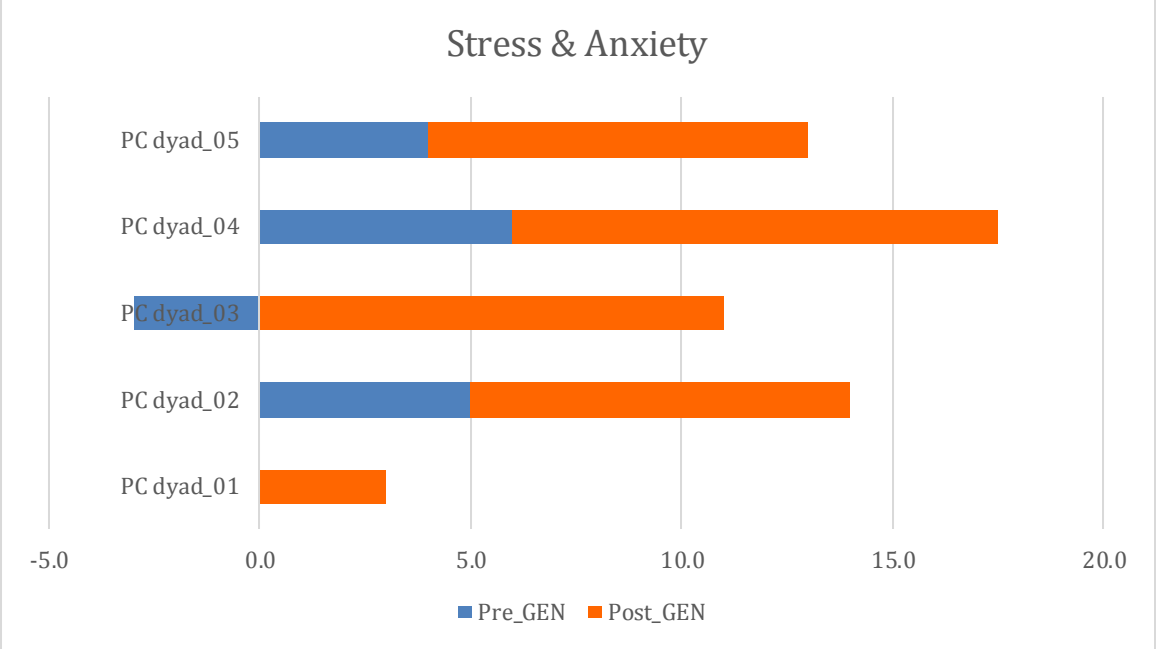


Figure 8. Parent perceptions of stress and anxiety when interacting with child

The category of confidence was further divided into two areas: parents' perceptions of general stress and anxiety associated with interactions with their child and parent perceptions of stress and anxiety that is induced during reading interactions with their child. Figure 8 depicts parent perceptions of general stress and anxiety when attempting to engage or interact with their child. Most parent participants reported positive perceptions of anxiety and stress on the pre-survey, with the exception of one parent indicating a negative perception score. These negative perception scores were as follows:

Parent 1 (failed to indicate), Parent 2 (5.0), Parent 3 (-3.0), Parent 4A (6.0), and Parent 4B (4.0). Each parent reported a positive perception score on the post-survey.

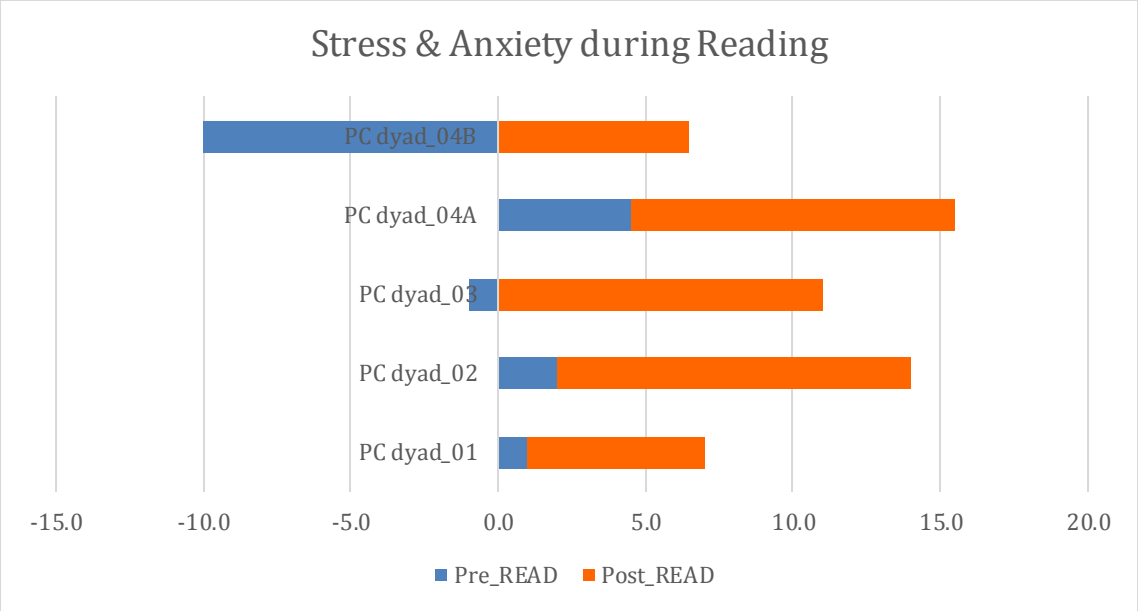


Figure 9. Parent perceptions of stress and anxiety when reading with child

When asked to indicate perceptions of stress and anxiety during reading interactions, three out of five parents reported a positive perception score (Parent 1=1.0, Parent 2=2.0, Parent 4A=4.5) on the pre-survey. Two out of five parents reported a negative perception score (Parent 3=-1.0, Parent 4B=-10.0). On the post-survey, all parents increased or reported a positive change of perception score. Parent 4B made the most notable change, gaining 16.5 points for a positive perception score of 6.5.

DISCUSSION

The purpose of this study was to determine the effects of a parent-implemented adapted dialogic reading (ADR) curriculum on social reciprocity behaviors and parents' feelings of confidence and competence on strategies learned. Both social reciprocity and parents' feelings of confidence and competence evidenced significant growth across the

ten-week intervention. This confirmed the results from Whalon's study (2015), concluding that parent implemented adapted dialogic reading is effective for preschoolers with autism and impacts social communication. This preliminary evidence for this small sample indicates that adapted dialogic reading does improve social reciprocity behaviors in preschoolers with autism and increases parents' feelings of confidence and competence when trained to implement ADR strategies.

Family 1

Family 1 was an anomaly of this research. An extensive amount of data (only reported 4 out of 45 reading encounters) was missing for *Family 1* due to their non-compliance with the requirements of the study. Researchers decided to complete interventions during home visits and provide support to the family. It was noted that Parent A and Parent B only completed book readings with Child 1 when the researcher conducted home visits. They did not engage the child in five days of reading as specified by the requirements of the study. Even though one day of reading was conducted each week, *Family 1* failed to upload video recordings as instructed. Data collectors were only able to analyze the four videos that *Family 1* provided. Therefore, Child 1's social reciprocity behaviors could not be used for statistical means. However, based on the four video recordings that were collected and researcher observation during home visits, it is subjective that Child 1 increased joint attention and contingent responses to parent questions during adapted dialogic book readings.

Anecdotal Evidence

All four parent-child dyads reported that their reading experiences with their preschoolers improved over the course of the 10-week study. Parents of *Family 2* and *3* reported that the combination of this novel curriculum and Hanen's More Than Words program had a significant impact on their interactions and communication with their child and stated that they felt more confident in implementing strategies learned from both the study and the Hanen program. Parent 2 stated that she felt that Child 2's true performance was not reflected on the video recordings and reported that this experience enhanced his language, by increasing his use of spontaneous utterances and his initiations of interactions outside of reading. Parent 3 and Parent 4 stated that both of their children benefited from the implementation of the curriculum and felt like they were able to engage them in more meaningful interactions. Parent 3 describe specific instances of concepts from the book Child 3 generalized and applied different contexts of daily living. For example, a week after reading the book The Very Lonely Firefly, Parent 3 reported her child approached her and noted that he was feeling lonely. Not only did the child initiate this interaction, but it also allowed for turn-taking in conversation, which was continued when Parent 3 asked why he was lonely. The child continued to express to her that he was lonely because he was playing by himself and wanted to play with her. Parent 3 noted this interaction as a turning point in the study. Parent 4 frequently described her interactions with Child A and Child B in the comments section of the parent feedback forms, asking for suggestions, and troubleshooting with the primary researcher for potential solutions. While reading with Child B, Parent 4 experimented with different strategies to increase joint attention during reading (e.g. incorporation of

movement, reading in different voices). During week 5, in an encounter with the primary researcher this parent stated, "I found something that worked. It was amazing!"

Limitations

The most notable limitation of this study was the small sample size. While this study increased the population size from the original case study that Whalon conducted, the sample size was considerably limited. Another limitation was the lack of female participants. Both genders were recruited for the purpose of this study however, parents' of females with autism showed no interest at the time recruitment took place. Missing data from missed days of reading was another limitation, particularly in reference to *Family 1*. They chose to only read one day a week and this was when the primary researcher was present for the home visit.

Considerations

The overall trend of the study showed significant growth, in regard to child social reciprocity behavior and parents' feelings of competence and confidence, when parents were trained to implement adapted dialogic readings in the home environment. However, it is important to note the anomaly in this study, pertaining to *Family 1*. Due to a significant amount of measurable data missing, it was difficult to show growth of Child 1's social reciprocity behaviors. Subjective reports from the primary researcher and data collector during home visits confirmed that Child 1's joint attention skills and contingent responses to parent questions during book reading significantly increased from baseline measures.

It is also important to note that gains for Child 2 may have been limited due to child's infrequent use of spontaneous speech and frequent echolalia, making it more

difficult to increase social reciprocity behaviors that required spontaneous speech, such as turn taking in conversation and initiation of interactions with the parent.

Another factor that could have influenced the results was preference of books. For instance, one child's joint attention score could have been attributed to increased or decreased interest in the book selected for that week.

Future Research

Additional studies with a larger sample size would be needed to confirm these findings, due to the small sample size that was obtained in this study combined with the missed data from missed days of reading.

It is also suggested that studies be conducted with preschool children with other diagnoses that result in communication disorders or impairments, such as Down syndrome (DS). These studies should aim to replicate the outcomes of the current study, but also measure outcomes when a speech-language pathology clinician implements strategies in therapy sessions, while also being implemented in the home environment by the parent, promoting generalization and carryover.

Furthermore, there are plans to train local preschool teachers who not only teach typically developing children but also have children with autism in their classroom.

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Appendix A: Family Early Literacy Survey

1.) In a typical week, how often does someone (outside of daycare and school) read with your preschoolers?

☐ Never (0 days a week)
☐ Some days (1-3 days a week)
☐ Most days (4-6 days a week)
☐ Every day (7 days a week)

2.) Who reads with your child (outside of daycare or school) on a regular basis? Check all that apply.

☐ Mother, step-mother, female guardian
☐ Father, step-father, male guardian
☐ Grandmother
☐ Grandfather
☐ Brother or sister
☐ Other relative (s) _____
☐ Person not related (nanny, babysitter, neighbor, friend)
☐ No one

3.) While reading aloud, about how often do you do the following (Please check):

	Frequently	**Sometimes**	**Rarely**	**Never**
Ask questions about what is being read				
Point out letter or word				
Point to things in the pictures/ask child to point				
Ask the child for help with reading or filling in words				
Do an activity based on the book				
Talk about what happened in the book				

4.) Which of the following things do you or someone else (outside of daycare/school) do with your children? Check all that apply.

- ☐ Tell a story from memory or make up and tell a new story
- ☐ Talk about letters or words
- ☐ Sing songs, say poems, or nursery rhymes
- ☐ Play games
- ☐ Watch TV shows focused on learning letters, words, or reading
- ☐ Have conversations about something interesting or enjoyable
- ☐ None of these things

5.) About how many children's books and/or magazines that your children enjoy are in your home right now?

- ☐ 0 books/magazines
- ☐ 1-20 books/magazines
- ☐ 21-50 books/magazines
- ☐ More than 50 books

6.) What types of things do you have in your home for children to read or use for writing? Check all that apply.

- ☐ Books that we own
- ☐ Books borrowed from the library
- ☐ Books on an electronic reader, reading apps
- ☐ Books on audio tape or CD
- ☐ Children's magazines
- ☐ Pencils, pens, crayons, and/or markers
- ☐ Paper, white board
- ☐ Writing apps on electronic device

7.) **What does a typical reading experience with your child look like?**

_____
_____
_____
_____
_____
_____
_____
_____

Appendix B: Parent Experiences with Shared Book Reading survey

Please rate the truth of these statements on a scale of 0-5 0= not true at all 5= true most of the time						
I feel relaxed and calm when interacting with my child.	0	1	2	3	4	5
I feel relaxed and calm when reading with my child.	0	1	2	3	4	5
I feel frustrated when interacting with my child.	0	1	2	3	4	5
I feel frustrated when reading with my child.	0	1	2	3	4	5
I feel tense when interacting with my child.	0	1	2	3	4	5
I feel tense when reading with my child.	0	1	2	3	4	5
I feel unsure of how to interact with my child.	0	1	2	3	4	5
I feel unsure how to engage my child during reading.	0	1	2	3	4	5
I feel confident in teaching my child new skills.	0	1	2	3	4	5
I know how to encourage my child to respond during reading activities.	0	1	2	3	4	5
I understand what dialogic reading is.	0	1	2	3	4	5
I understand how to use dialogic reading with my child.	0	1	2	3	4	5
I know what an open-ended question is.	0	1	2	3	4	5
I know how to use open-ended questions to prompt my child during reading.	0	1	2	3	4	5

I know what a distancing question is.	0	1	2	3	4	5
I know how to use distancing questions to prompt my child during reading.	0	1	2	3	4	5
I know how to fade prompting to build independence.	0	1	2	3	4	5
I know how to expand on what my child says.	0	1	2	3	4	5
I know how to use expansion to cue my child to respond.	0	1	2	3	4	5
I know what a binary choice is.	0	1	2	3	4	5
I know how to use a binary choice to cue my child to respond when reading.	0	1	2	3	4	5

I know what joint attention is.	0	1	2	3	4	5
My child uses joint attention consistently during shared book reading.	0	1	2	3	4	5
My child verbally responds to questions during shared book reading.	0	1	2	3	4	5
My child responds using other means such as gestures, facial expressions, head nods, etc. when asked questions during shared reading experiences. **My child seems to enjoy shared reading experiences.**	0	1	2	3	4	5
My child seems frustrated or anxious during shared reading experiences.	0	1	2	3	4	5
My child doesn't seem interested during shared reading experiences.	0	1	2	3	4	5

Appendix C: Example of Lexical Diversity Analysis for Baby Bear, Baby Bear, What Do You See? and an ordered list of storybooks

Lexical Diversity Analysis for Eric Carle Books

Support for the Adapted Dialogic Reading

BABY BEAR

	Examples	dog, alien, desk, hunter	thin, wiggly, valiant	running, lost, joked	rapidly, almost, always	on, off, beyond	yes, no, maybe, sure	hey, hi, bye, see ya	a, an, the, that	can't, you'll, doesn't	Harry's, boy's, cats'	I, you, his, their	[doesn't fit anywhere else]	[it should fit somewhere but I'm not sure where]
		Nouns	**Adjectives**	**Verbs**	**Adverbs**	**Prepositions**	**Negation/ Affirmation**	**Social/ Greetings**	**Articles**	**Contractions**	**Possessives**	**Pronouns**	**Other**	**I don't know**
		bear	baby	do		by			a	that's		what	and (*conjunction*)	
		fox	red	see		near						you		
		squirrel	flying	slipping		at						I		
		goat	mountain	gliding								me		
		heron	blue	climbing								my		
		dog	prairie	flying										
		skunk	striped	digging										
		deer	mule	strutting										
		rattlesnake	screech	running										
		owl	mama	sliding										
				hooting										
				looking										

Baseline: A House for Hermit Crab

Week 1: Baby Bear, Baby Bear, What Do You See?

Week 2: From Head to Toe

Week 3: Panda Bear, Panda Bear, What Do You See?

Week 4: The Very Hungry Caterpillar

Week 5: The Lonely Firefly

Week 6: The Mixed Up Chameleon

Week 7: Papa Please Get the Moon

Week 8: Ten Little Rubber Ducks

Week 9: The Grouchy Ladybug

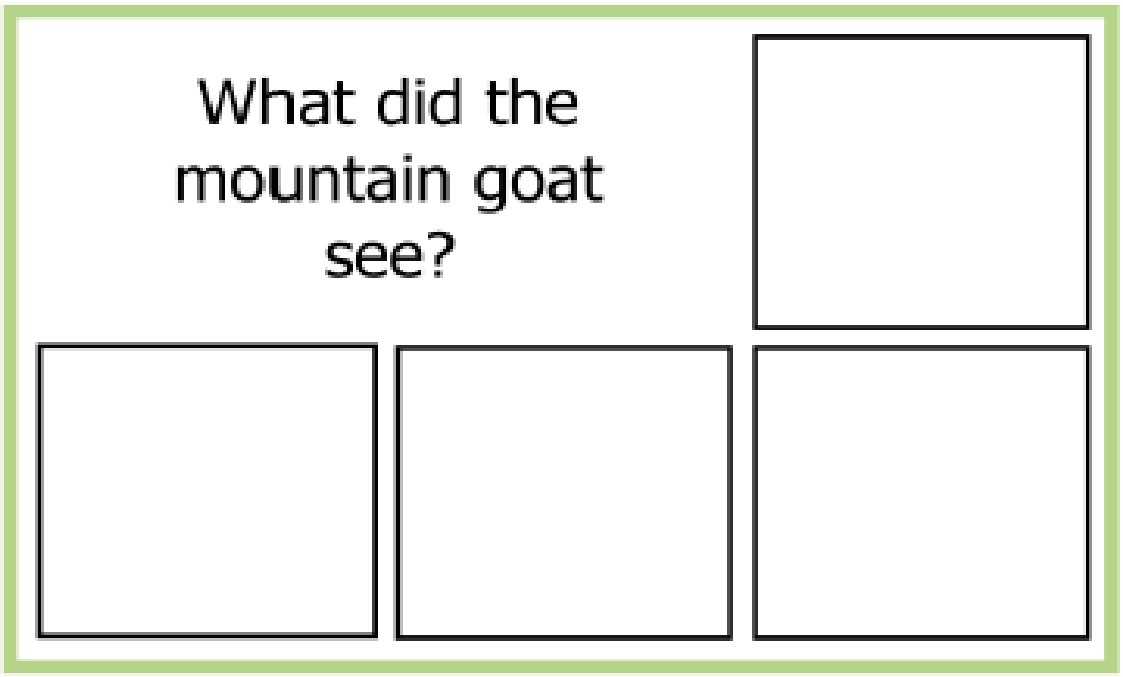
Week 10/Final: A House for Hermit Crab

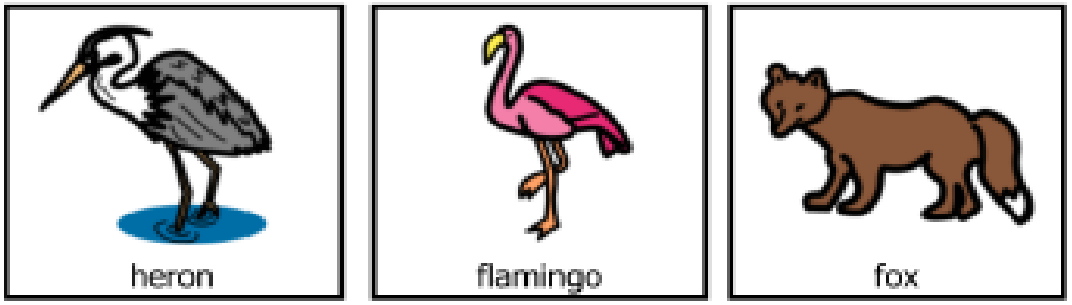
Appendix D: Example of question prompting hierarchy and visual support

Pg. 8: What did the mountain goat see?

- Wait 3-5 seconds
- Provide picture selection if no response/incorrect response

Correct Response (Verbal or Picture)	**No/Incorrect Response**
P – Provide immediate praise E – "The mountain goat saw a blue heron flying by."	BC – Take away one picture that is incorrect and provide two choices Correct = Praise and Expand Incorrect = See below
	M – "The mountain goat saw a BLUE HERON." R – "What did the mountain goat see?" Correct = Praise and Expand Incorrect = See below
	HOH – help your child select the correct picture and place it on the question strip saying "The mountain goat saw a BLUE HERON."





Appendix E: Example of parent feedback form

Parent Feedback Form

Parent Feedback Form		Family # 01
Week 1 Day 1	**Book:**	The Very Hungry Caterpillar
	Date:	09/05/2017
	Time spent reading:	☐ less than 5 min ☐ 5-10 min ☐ more than 10 min

For the following questions, 0 = poorly and 9 = almost perfect.
Please circle how you feel you or your child did in each area.

How well do you think you did in following the reading guide?	0	1	2	3	4	5	6	7	8	9
How did your child do with the use of the visual supports (pictures)	0	1	2	3	4	5	6	7	8	9
How well do you think you did in providing the appropriate prompts?	0	1	2	3	4	5	6	7	8	9
How well do you think you did in providing the appropriate cue, given an incorrect/no response?	0	1	2	3	4	5	6	7	8	9

Comments/Questions: