

## Language Research Summary

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### 1. Title of the three articles:

Article #1: Bopp, K., Mirenda, P., & Zumbo, B. (2009). Behavior predictors of language development over 2 years in children with autism spectrum disorders. *Journal of Speech, Language, and Hearing Research, 52* (5), 1106-1120.

Article #2: Pickles, A., Simonoff, E., Conti-Ramsden, G., Falcaro, M., Simkin, Z., Charman, T., . . Baird, G. (2009). Loss of language in early development of autism and specific language impairment. *The Journal of Speech, Child Psychology and Psychiatry, 50* (7), 843-852.

Article #3: Reichow, B., & Sabornie, E. J. (2009). Increasing verbal greeting initiations for a student with autism via a social story intervention. *The Journal of Autism and Developmental Disorders, 39*, 1740-1743.

### 2. Briefly summarize important findings from each of the three articles.

#### Article #1:

This article discussed five problem behaviors described as potential predictors of language development in children with autism. The results found a relationship between only two of them; inattentiveness (behaviors that indicate high distractibility or decreases awareness of objects, activities, or the environment) and social unresponsiveness (decreased ability to initiate or respond to social interactions from others). The article concluded that inattentiveness hinders language development and that poor attention skills cause major setbacks in a child's ability to learn from their environment; which supports the importance of focusing instruction on improving attention early in the treatment process for these children. The unresponsive behaviors included in this study consist of rarely smiling, not looking at peoples' faces, little to no eye contact, and not responding to their own name. The study implies that children with more socially unresponsive behaviors made much less progress in vocabulary and language comprehension over a 2 year time period. In addition, the study concluded that the remaining three behaviors (acting out, insistence on sameness, and repetitive behaviors) do not have a significant relationship with vocabulary and language development in children with autism.

#### Article #2:

The study in this article confirmed that loss of language is common among children with ASD and is rare among children with SLI only. Language loss is indeed specific to autism. The frequency of language loss in children with ASD was too low for a useful separate analysis as to timing and outcome. The article also shows that among children with ASD, language loss is less common in children with an early language acquisition delay. They believe that the language delay may mask the presence of a documentable amount of language

loss. The article also concluded that early language development in children with ASD is not a reliable indicator of a language loss outcome. Further assessments and evaluations later on in the child's life are necessary. Loss of language was reported between the 12<sup>th</sup> and 33<sup>rd</sup> month of age in all but one case. There was a reported median age of first words acquisition marked at a younger age than the participants that did not have the language loss. The study also showed that children with autism or ASD without a language loss do not have better expressive or receptive language later in life. The absence of language loss in SLI compared to autism is not due to differential delay in speech. This study shows that language loss is specifically associated with the autism spectrum, and more concentrated among those with autism. It confirms previous findings and clarifies that language loss is not a feature of SLI.

### Article #3:

This article's study showed an increased number of acceptable verbal greeting initiations during each of the intervention conditions (when the social story was introduced). This increase was then maintained through using the visual cue card. These results concluded that using a social story was an effective method for increasing social initiations with George, which were then maintained with the visual cue card. This study demonstrates the utility of social stories when used as a sole treatment variable. When the social story was presented, there was an immediate change in verbal initiations; but once it was removed, they disappeared. Once the visual cue phase began, the number of acceptable greeting initiations increased. This increase was maintained through the visual cue card; once the social story was removed. These results propose that using a social story was an effective method of increasing social initiations for this student with autism, which were then maintained by the visual cue.

### 3. In what way are the three articles related to each other? How do they contribute to the field at both the research and practical/applied level?

These articles are related because they all discuss language development in individuals with autism. Article one confirms the fact that language loss is specific to autism spectrum disorder (more commonly with autism) and not SLI; thus confirming the importance of teaching language development skills as early as possible. It also suggests that the loss of language was reported between the 12<sup>th</sup> and 33<sup>rd</sup> month of age; giving us a round about age to consider when searching for language loss and planning interventions.

Article two discusses inappropriate behaviors that children might demonstrate before being taught how to appropriately communicate with others. These behaviors include acting out, repetitive and restricted behaviors, insistence on sameness, social unresponsiveness, and inattentiveness. It did conclude that inattentiveness and poor attention skills were the two that were most connected to language development. Inattentiveness hindered the language development and poor attention skills caused major setbacks in a child's ability to learn from their environment; which supports the importance of focusing instruction on improving attention and increasing communication abilities early in the treatment process for these children.

Article three discusses the use of social stories and visual cues to increase appropriate verbal greetings in students with ASD. It is an intervention study that concludes that using a social story is an effective method of increasing social initiations for students with autism, and maintaining them with visual cues makes it even more effective.

The combination of these three articles provide very useful information to the field at the research level because it supports the notion that language development in students with ASD is definitely a concern and important for individuals involved with designing interventions for these students to consider. It can help researchers to understand that there are certain behaviors to look for to help identify a language development delay in students with ASD. It also helps to rule out certain behaviors of concluding a language development delay; such as insistence on sameness, repetitive or restricted behaviors and acting out. Just because students with ASD display these behaviors, doesn't mean it's related to a language development delay. Social inattentiveness and poor attention skills have a much more important relationship to language development.

At the practical level, the article about using social stories and visual cues suggests that using these tools can definitely help to increase verbal greetings, possibly helping to decrease the behaviors of social inattentiveness and poor attention skills. It confirms that social stories can help teach certain communication barriers and allow children with ASD to eventually be socially accepted in their everyday environment.

4. Based on the three articles, what are some successful strategies that can be used to address the problems and difficulties experienced by children with ASD?

One successful strategy that I gained from these articles is the importance of intensive intervention with individuals with ASD; especially those who have language development delays. One article use 15-20 hours per week of year round early intervention. The interventions that were used were very diverse and were conducted using early intensive behavior intervention sites. The intervention recommended one on one instructions as well as services from the speech and language pathologist, occupational therapist, as well as other professionals related to the field. In addition, they recommend the children also attending preschool while receiving these intervention services.

Another strategy that can be used was the use of social stories and visual cues. Social stories can help to reinforce the positive behavior that you want the individual to display rather than consistently punishing the negative behavior (thus unintentionally reinforcing that negative behavior even more). The article did suggest that pairing the social story with a visual cue reminder such as "George, don't forget to say hello to your teachers and your classmates before school begins" with a color picture of a stick person waving his right hand was introduced in addition to the social story; might be a great was to increase the effectiveness of the social story.

All three of these articles supported the notion that early intervention with individuals with ASD showing any signs of language development is absolutely a necessity. The earlier

you can learn about the struggles of the individual, the more time you have to teach them the correct behaviors and help them to be more socially capable in their environment.

5. What's the impact of reading these articles on your current and future professional career and real life practice?

Prior to completing this research, I had no idea that language development had any major connection to autism spectrum disorder. I assumed that language was a factor because of the students with ASD that I have personally come in contact with, but this research allowed me to really see the important connection between the two. It also helped me to understand some of the behaviors associated with students with ASD and showed me the relationship of those behaviors to language development. I have seen some of these behaviors in individuals before but not all of them. It helped me to know what to look for in further students that I see in my classroom. In addition, this research gave me a lot of great information to share with my colleagues who have even less experience with ASD than I do. I plan to share my research with them to hopefully inspire them to complete their own research and report back to me the new and exciting things that I may not have learned yet.

A major impact of this research was my introduction into understanding social stories. Because of this research I have been looking up different examples of social stories and different ways to use them in the classroom and at home. It has inspired me to begin making my own social stories for certain students in my classroom that I think could benefit from them. I also plan to combine these social stories with a visual cue to see if it makes them more effective. Overall, this research was very helpful for me to learn more about ASD and what I can do to assist individuals with ASD that might enter my classroom in the future.