Language Research Articles Presentation: Effects of Verbal Communication Deficits on Social Skills

By: Ashley Liedel, CEP 843

# Research Article #1:

Moderating Effects of Challenging Behaviors and Communication Deficits on Social Skills in Children Diagnosed with an Autism Spectrum Disorder

By: Matson, J. L., Hess, J. A., & Mahan, S.

## Research Article #1: Background Information

- This study involved:
  - 109 children with an Autism Spectrum Disorder
  - Ranged in age from 3 to 16 years and from 6 states in the U.S.
  - Met a specific cutoff score on the DSM-IV/ICD-10 checklist.
- The following questionnaire assessments were done by the children's primary caregivers:
  - ASD-DC used to assess verbal communication
  - ASD-PBC used to assess challenging behaviors
  - MESSY (Matson Evaluation of Social Skills for Youngsters) - used to assess social skills



#### Research Article #1: Research Purpose

- This study contributed to research done to better understand the relationships between some of the core symptoms of ASD, including challenging behaviors, communication, and social skill deficits.
- This research study was completed to look at how levels of communication skills and rates of challenging behaviors affected a child with ASD's social interactions and overall social skills.
- The end goal was also to figure out what interventions would be most effective in targeting social skills in the ASD population

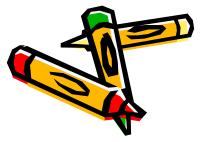
#### Research Article #1: Intervention

- This article did not focus on a specific intervention.
- Instead, the focus was on the relationship between different variables: verbal communication skills, challenging behaviors, and social skills.
- The study determined that because of the relationship between these variables, interventions should first focus on behavior strategies to increase functional alternative behaviors and lower challenging behaviors. Those that incorporate communication strategies would be best.



## Research Article #1: Findings/Results

- Both verbal communication skills and challenging behaviors are variables to predict level of social skills in children with ASD.
- Overall, children with ASD who exhibited fewer challenging behaviors and had better verbal communication skills had the greatest strengths in social skills.
- This study proved that students with low rates of challenging behaviors had very similar social skills impairments no matter if they had high or low verbal communication abilities.
- Level of verbal communication skills had almost no effect on social skills.
- Rate of challenging behaviors had a greater negative impact on social skills.



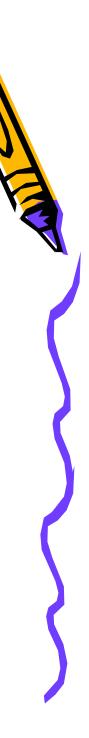
### Research Article #2:

#### The Effects of Teaching PECS to a Child with Autism on Verbal Behaviour, Play, and Social Functioning



# Research Article #2: Background Information

- We know that children with Autism have deficits in communication and do not engage in social play as normally developing children do.
- The participant in this study was a boy aged three years and seven months who was diagnosed with Autism in the mild to moderate range of the disorder (according to the CARS - Childhood Autism Rating Scale).
- Prior to the study, the child displayed echolalia, unintelligible speech, and very little functional language.
- The study was conducted primarily in the child's home environment with some observation done in the child's Kindergarten classroom.



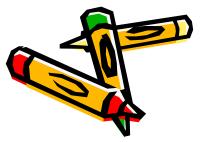
Research Article #2: Research Purpose

- This study was done to see the effect that PECS training would have on a child with Autism
  - Verbal communication skills
  - Amount of time the child spends participating in developmentally appropriate play
  - Social interactions with peers and adults



#### Research Article #2: Intervention

- PECS (Picture Exchange Communication System)
- Encourages children with Autism to initiate communication with independence using picture cards
- Teaches one communicative function at a time
- This study focused on phases 1-4 of the PECS training, which increase in complexity from a basic picture exchange to using PECS picture cards to construct sentences.
- PECS training sessions were done 3-5 times per week and lasted about 20 minutes in duration with a 15 minute free play observation afterward.



## Research Article #2: Findings/Results

- Even though PECS focuses on teaching nonverbal behaviors, it increases the quantity and complexity of verbal communication skills.
- Using PECS (Picture Exchange Communication System) in the child's home environment increased the following:
  - Verbal mands
  - Verbal initiations
  - Length of utterances
  - Time spent in play
  - Vocabulary
- The child with Autism's mother reported other improvements from PECS:
  - Increased verbal communication
  - Following directions
  - Social interaction with peers
    - Increased variety in play choices

# Research Article #3:

Using the Picture Exchange Communication System (PECS) With Children With Autism: Assessment of PECS Acquisition, Speech, Social-Communicative Behavior, and Problem Behavior

By: Charlop-Christy, M. H., Carpenter, M., Le, L., LeBlanc, L. A., & Kellet, K.

### Research Article #3: Background Information

- The participants in this study were three male children with Autism.
- The children varied in ages (three, five, and twelve years old) and were chosen because they had extensive verbal speech training which had been ineffective.
- Despite their chronological ages, all three children scored in the one to two year-old range in expressive language and receptive vocabulary.
- Two of the three children also exhibited many problem behaviors.



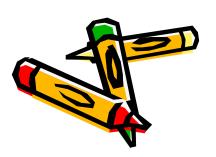
#### Research Article #3: Research Purpose

- Other behavioral interventions have been used to increase speech but still more than half of children diagnosed with Autism remain nonverbal.
- This study was done to investigate PECS and its effects
  - On verbal speech
  - On the initiation of speech in both academic and play settings
  - On social-communicative and problem behaviors
- This study provided the first empirical evidence (based solely on observational data) to support previous reports.



#### Research Article #3: Intervention

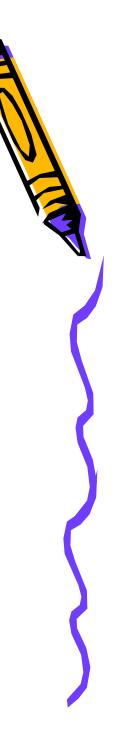
- This study also utilized PECS as its intervention.
  - The three boys participated in PECS training sessions (15 minutes twice a week), free play sessions (10 minutes once a week), and academic sessions (10 minutes once a week).



### Research Article #3: Findings/Results

- In all three students involved in this study, the following increases were seen by using PECS:
- •In the area of speech:
  - Spontaneous speech
  - Imitative speech
  - Mean length of utterances
- •In the area of social-communicative behaviors:
  - Joint attention
  - Eye contact
  - Toy play
  - Number of requests and initiations
- There was a large reduction in the majority of problem behaviors and some were even eliminated.





#### Research Article Similarities

- All articles related in the fact that they investigated the relationship between verbal communication, social skills, and behavior.
- The second and third articles were similar as they focused on how PECS training can positively impact the verbal communications of a child, increase the amount of time they spend in developmentally appropriate play with their peers, and reduce problem behaviors.
- The first and third articles both concluded that when the child exhibits less behavior problems, they have increased verbal communication skills as well as increased social skills.

#### Research Article Differences

- The second and third articles found that with an increase in verbal communication there were increases in play, social interactions, etc.
  - Therefore these articles proved that as verbal communications skills are increased, social skills also increased.
- The first article did not see a certain relation between verbal communication abilities and social skills, but did prove a correlation between problem behaviors and social skills.

- Therefore this article proved that as problem behaviors decreased, social skills increased.

#### Impact of the Research Articles on the Education Field

- The first article's study contributed to research done to better understand the relationships between some of the core symptoms of ASD, including challenging behaviors, communication, and social skill deficits.
  - Behavior problems should be of primary focus before addressing social skill and communication deficits.
  - Importance of first addressing communication deficits and alternative behaviors in strategy instruction as this will help to improve social skills on its own.
- The second article was done to see the effect that PECS training would have on a child with Autism's verbal communication skills and the amount of time the child spends participating in developmentally appropriate play.
- The third article was done to investigate PECS, which is already used widespread in educational settings, and its effect on verbal speech. This study provided observational data to prove that the use of PECS can lead to the development of spoken language and consequently the acquisition of positive social behaviors.
  - Visuals are important in aiding in the communication of children.
    - Rewards that are meaningful help to improve positive social behaviors.

#### Impact of the Research Articles on My Own Professional Career

- Builds my background knowledge of PECS:
  - PECS provides students with Autism a way to be independent and to express their needs no matter their struggle to verbally communicate.
  - PECS is a popular intervention for a few reasons:
    - Requires few complex motor movements for the child with ASD
    - Does not require knowledge of another language, such as sign language
    - Relatively low cost to use
    - · Portable and can be used in multiple settings
    - Can be taught rapidly
    - Promotes meaningful interactions between the child and the environment.
    - A large number of children who learn PECS also develop spoken language
  - I want to devote some time to investigate PECS further as well as take time to research more interventions that are available to help increase communication and play skills in students with Autism.
  - Also, taught me the benefits of visuals to increase communication, positive behavior, and social interaction.



#### Impact of Research Articles on My Own Professional Career Continued

- I have a greater understanding of the impact challenging behaviors and verbal communication can have on social skills.
- In addition, these articles encourage me to continue to use many visuals in my room to promote communication and positive social skills.
- As a Kindergarten teacher, language development is very important for my students and the knowledge from this article confirms the use of promoting language
  - Labeling items in the room
  - Accompanying new vocabulary with pictures
  - Doing many oral language activities



#### Research Article #1:

Matson, J. L., Hess, J. A. & Mahan, S. (2010). Moderating effects of challenging behaviors and communication deficits on social skills in children diagnosed with an autism spectrum disorder. *Research in Autism Spectrum Disorders, 7,* 23-28. doi: http://dx.doi.org.proxy2.cl.msu.edu.proxy1.cl.msu.edu/10.1016/j.rasd.2012.07.002

#### Research Article #2:

Jurgens, A., Anderson, A., & Moore, D. W. (2009). The Effect of Teaching PECS to a Child With Autism on Verbal Behaviour, Play, and Social Functioning. *Behaviour Change, 26*(1), 66-81. Retrieved from http://search.proquest.com.proxy1.cl.msu. edu/docview/219352644/fulltextPDF?accountid=12598http://dx.doi.org.proxy2.cl. msu.edu.proxy1.cl.msu.edu/10.1016/j.rasd.2012.07.002

#### Research Article #3:

Charlop-Christy, M. H., Carpenter, M., Le, L., LeBlanc, L. A., & Kellet, K. (2002). Using the Picture Exchange Communication System (PECS) With Children With Autism: Assessment of PECS Acquisition, Speech, Social-Communicative Behavior, and Problem Behavior. Journal of Applied Behavior Analysis, 35(3), 213-231. Retrieved from http://ezproxy.msu.edu.proxy1.cl.msu.edu/login?url=http://search.proquest. com.proxy1.cl.msu.edu/docview/225045803?accountid=12598

