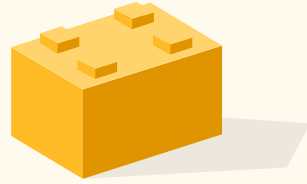


The Building Blocks of Working with Preverbal Children: *Where to start when you don't know where to start*

2023 Oklahoma Autism Conference



Beth Lane, M.A., CCC-SLP

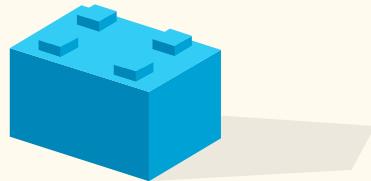


Background:

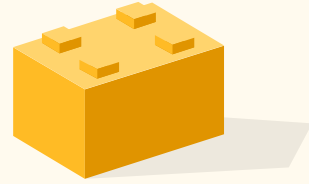
Currently working at University of Oklahoma Health Sciences Center. I serve as a Clinical Assistant Professor, Director of the iLEAP program and SLP Clinic Coordinator.

I teach the Autism Spectrum Disorders class to first year SLP graduate students.

Prior to coming to OUHSC in 2019, I worked for 30 years in the public school setting. My special interest was ASD and I continue to seek out continuing education in this area.

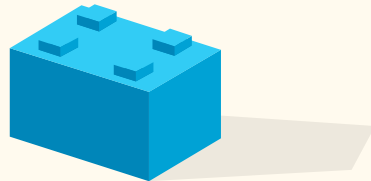


Mary Elizabeth Young, M.A., CCC-SLP



Background:

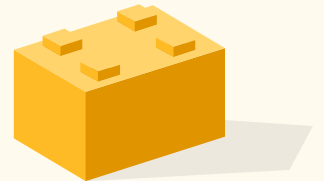
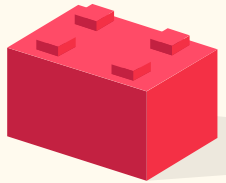
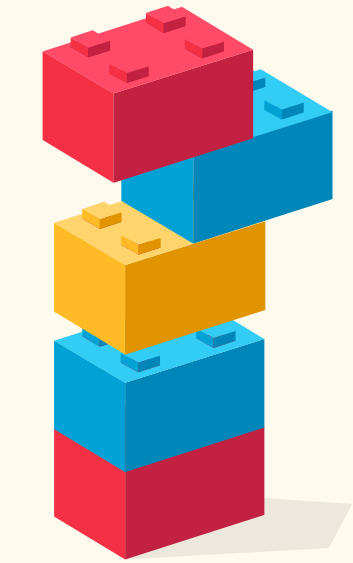
Currently working at University of Oklahoma Health Sciences Center. I serve as a Clinical Assistant Professor, providing clinical education in John W. Keys Speech and Hearing Center and with our public school teletherapy contract. Prior to coming to OUHSC in 2019, I worked in medical, early intervention, and public school settings. My clinical interests are preschool and school-age child communication disorders including speech sound disorders, language learning disorders, and autism spectrum disorders.



Learning Objectives

Participants will be able to:

1. Compare and contrast typical and atypical language, social, and behavioral development
2. Identify foundational evidence-based practices to address communication needs for pre-verbal and minimally verbal language learners
3. Access strategies for establishing foundational skills to promote functional communication



Outline

01

Typical and Atypical
Development

02

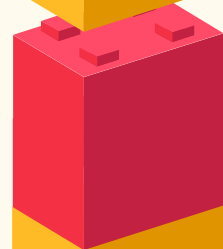
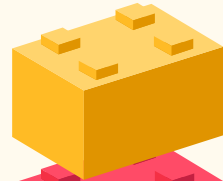
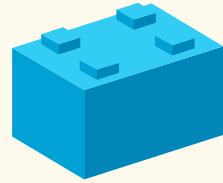
Evidenced Based
Practice

03

Strategies

04

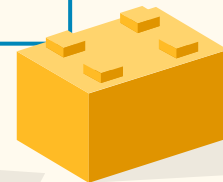
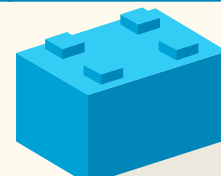
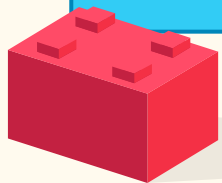
Questions and
Resources



Typical Developmental Milestones

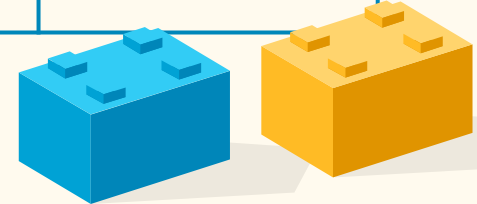
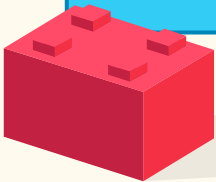
Age	Language Skills	Social Skills	Cognitive Skills	Speech Skills
6 months	<ul style="list-style-type: none">• Makes squealing noises• Takes turns making sounds with you	<ul style="list-style-type: none">• Laughs• Likes to look at self in a mirror	<ul style="list-style-type: none">• Reaches for a toy they want• Puts things in their mouth to explore them	<ul style="list-style-type: none">• Giggles and laughs• Makes speech-like babbling sounds
12 months	<ul style="list-style-type: none">• Starting to use simple words like “hi”, “dad”, “mama” or “uh-oh”• Responds to their name	<ul style="list-style-type: none">• Waves bye-bye• Plays “pat-a-cake”	<ul style="list-style-type: none">• Puts something in a container• Looks for something you hide	<ul style="list-style-type: none">• Says 1 or 2 words like, <i>hi, dog, dada, or mama</i>

American Speech Language Hearing Association
<https://www.asha.org/public/speech/development/>



Typical Developmental Milestones

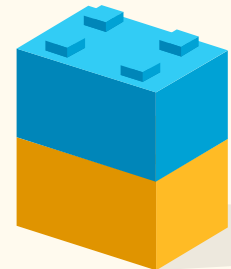
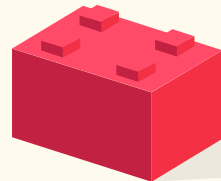
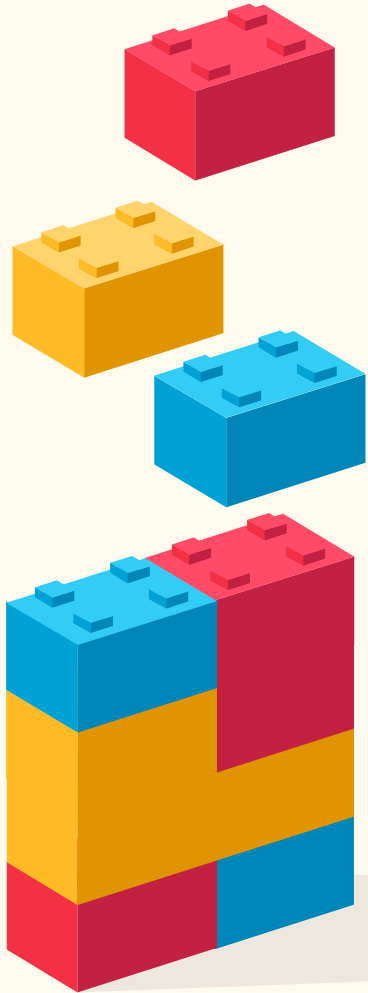
Age	Language Skills	Social Skills	Cognitive Skills	Speech Skills
2 years	<ul style="list-style-type: none">• Responds to simple questions• Follows one-part directions	<ul style="list-style-type: none">• Laughs• Likes to look at self in a mirror	Points to pictures in a book when you name them	<ul style="list-style-type: none">• Uses a lot of new words• Uses a variety of consonants
3 years	<ul style="list-style-type: none">• Answers simple who, what, and where questions• Uses 3- word sentences• Has at least two back and forth conversation exchanges	<ul style="list-style-type: none">• Notices other children and joins them in play	<ul style="list-style-type: none">• Draws a circle when you show them how• Avoids touching hot objects when warned	<ul style="list-style-type: none">• Most people understand what your child says• Has most consonants, some errors are typical



Atypical development and Behavioral indicators:

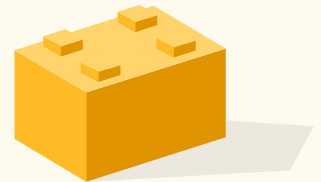
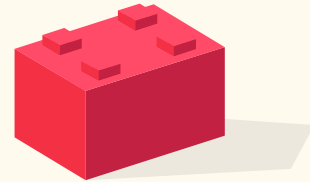
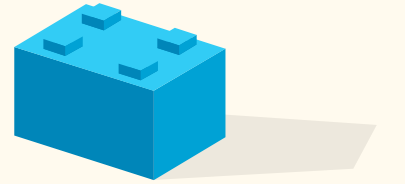
16 early signs by 16 months
([baby navigator.com](http://babynavigator.com))

If you notice these things, it doesn't necessarily mean your child has autism, but it can help you decide to get an evaluation from a speech language pathologist or have screening completed.

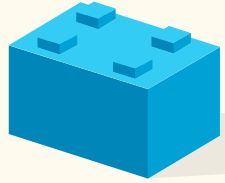


16 early signs of autism (from 9-16 months)

1. Hard to get your baby to look at you
2. Rarely Shares Enjoyment with you
3. Rarely Shares Their Interests with You
4. Rarely Responds to Their Name or Other Bids
5. Limited Use of Gestures such as Show and Point
6. Hard to Look at You and Use a Gesture and Sound
7. Little or No Imitating Other People or Pretending
8. Uses Your Hand as a Tool



16 early signs of autism-cont.



9. More Interested in Objects than People

10. Unusual Ways of Moving Their Fingers, Hands, or Body

11. Repeats Unusual Movements with Objects

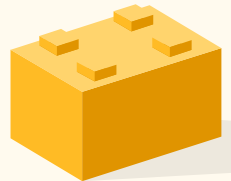
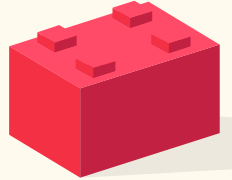
12. Develops Rituals and May Get Very Upset Over Change

13. Excessive Interest in Particular Objects or Activities

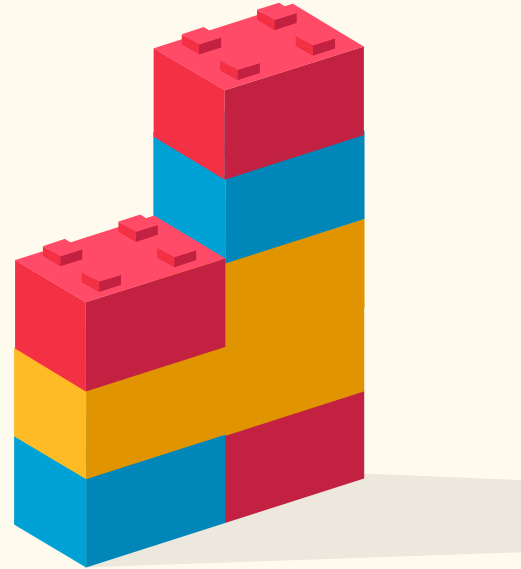
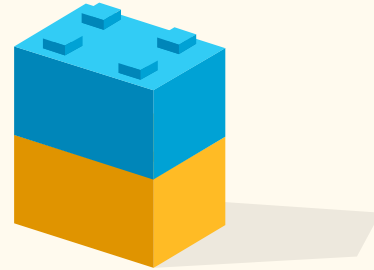
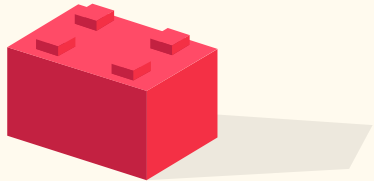
14. Very Focused on or Attached to Unusual Objects

15. Unusual Reaction to Sounds, Sights, or Textures

16. Strong Interest in Unusual Sensory Experiences

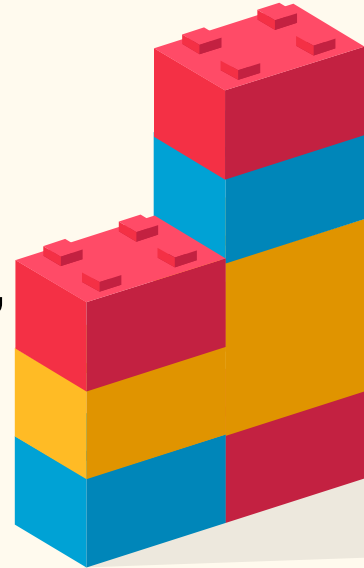
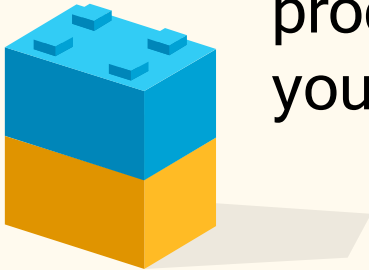


Identify foundational evidence-based practices to address communication needs for pre-verbal and minimally verbal language learners

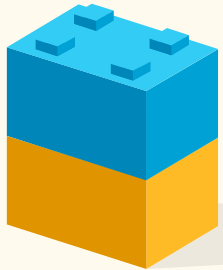


The National Professional Development Center on Autism Spectrum Disorder

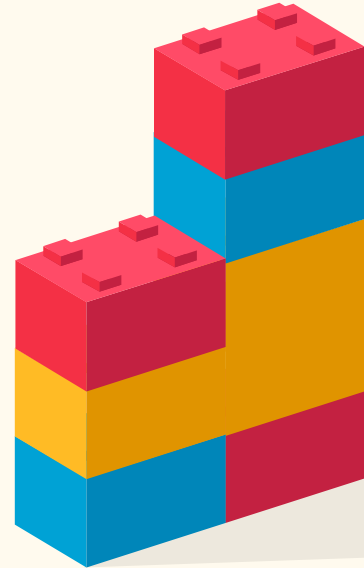
An evidence-based practice is an instructional/intervention procedure or set of procedures for which researchers have provided an acceptable level of research that shows the practice produces positive outcomes for children, youth, and/or adults with ASD.



Evidence-based practice (EBP) is the process of applying current, best evidence (external and internal scientific evidence), patient perspective, and clinical expertise to make decisions about the care of the individuals you treat.



<https://www.asha.org/research/ebp/evidence-based-practice-process/>



How do you apply
Evidence Based
Practice?

<https://www.asha.org/research/ebp/evidence-based-practice-process/>



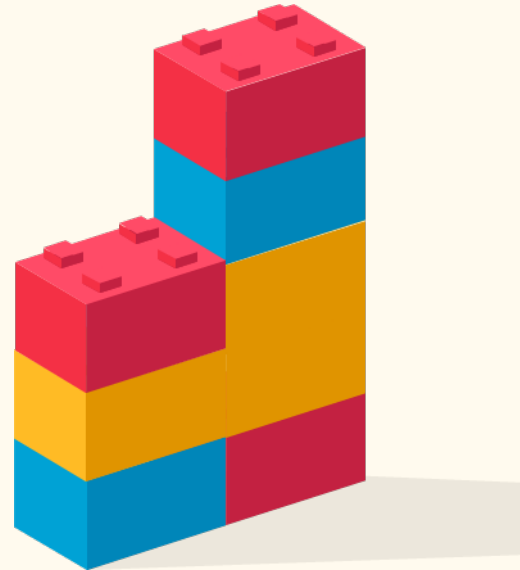
Step 1: Frame Your Clinical Question

Step 2: Gather Evidence

Step 3: Assess the Evidence

Step 4: Make Your Clinical Decision

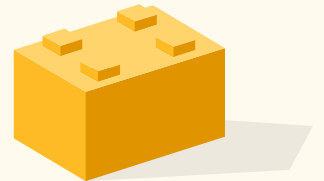
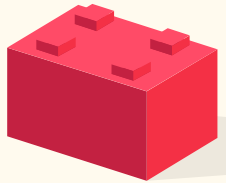
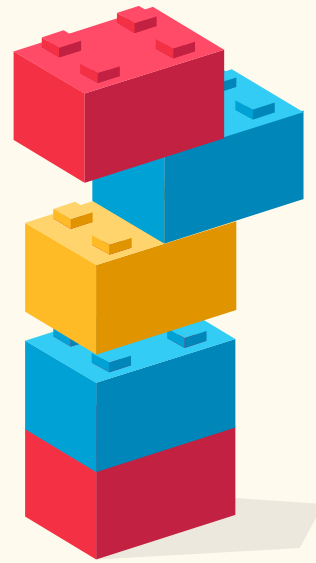
<https://www.asha.org/research/ebp/evidence-based-practice-process/>



Pre-Verbal

1. Before the development of speech, generally considered before first true word
2. Typical for infants under 12 months

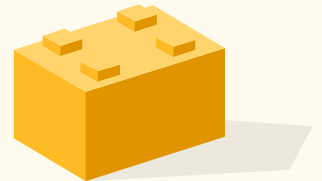
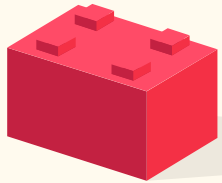
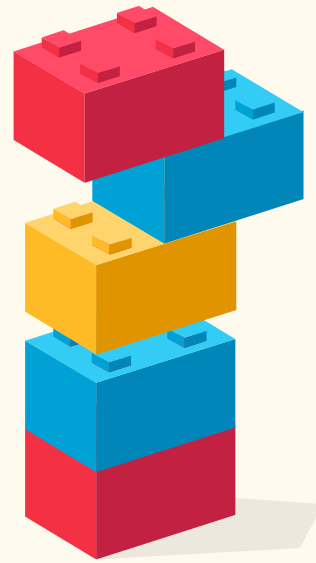
Koegel, L.K., Bryan, K.M., Su, P.L., Vaidya, M., Camarata, S., 2020, “Definitions of Nonverbal and Minimally Verbal in Research for Autism: A Systematic Review of the Literature”



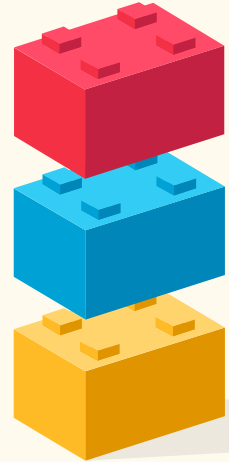
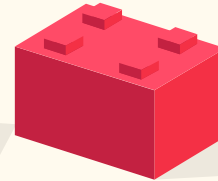
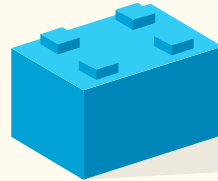
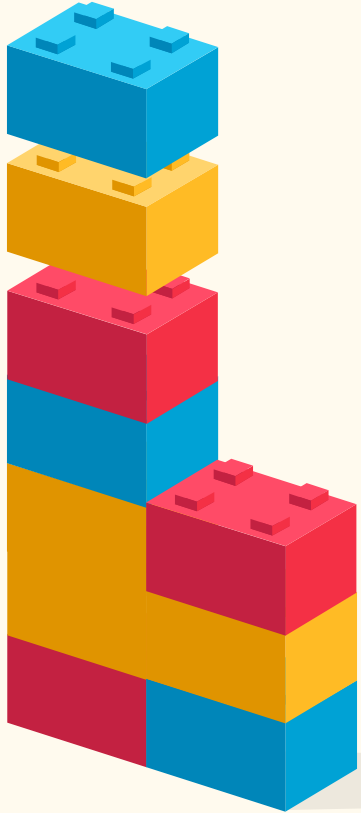
Minimally Verbal

1. Using some words, but significantly fewer than expected for age. For example, less than 5 words at 18 months or less than 50 words at 30 months
2. Authors suggest corresponding to use of words less than 10th percentile

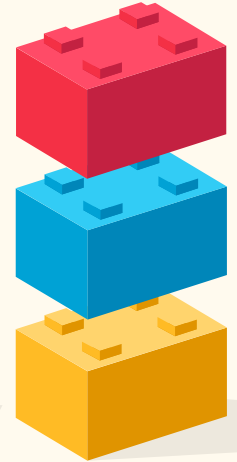
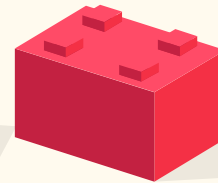
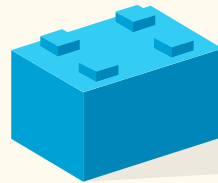
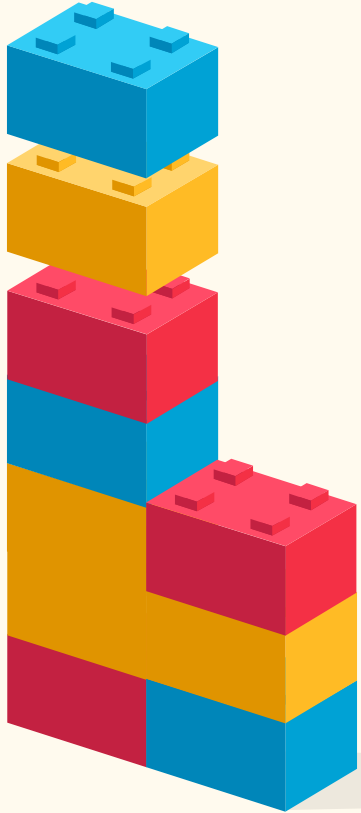
Koegel, L.K., Bryan, K.M., Su, P.L., Vaidya, M., Camarata, S., 2020, “Definitions of Nonverbal and Minimally Verbal in Research for Autism: A Systematic Review of the Literature”



1. Frame your question:
How can I help this child
better communicate??

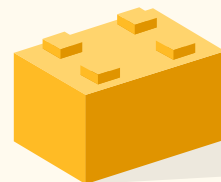
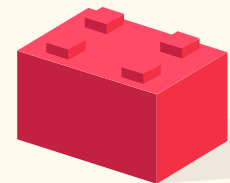
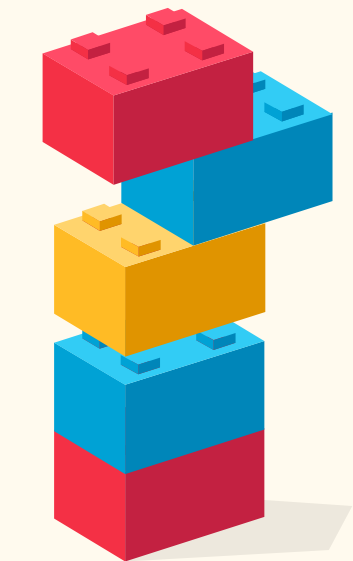


2. Gather your evidence: Internal and external



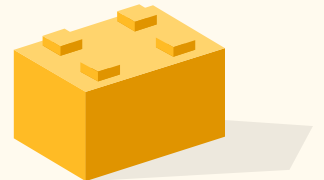
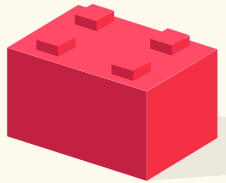
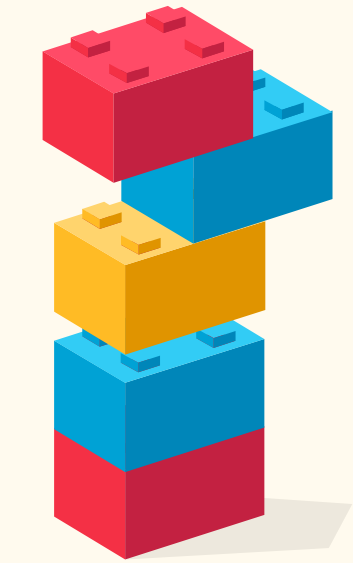
Internal Evidence

1. Data systematically collected from child (both subjective observations and objective performance data).
2. Data is collected across time to make sure child is making progress.
3. Clinician uses their clinical expertise to determine what is most important for the child's specific situation and needs.
4. Using this specific internal evidence helps clinician better search out external evidence to make best decisions for child.



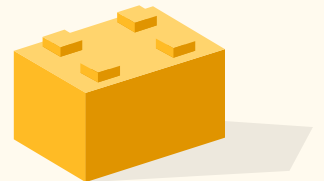
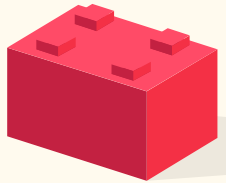
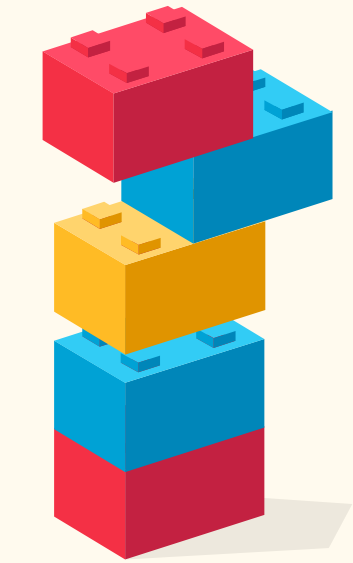
External Evidence

1. Evidence from scientific literature
2. Evidence helps clinician determine whether an approach or service delivery model might be effective in implementing change in the child
3. Need to consider how to develop a plan to search for evidence, where you should search, what you should do if you can't find evidence



Internal Evidence Sample Child

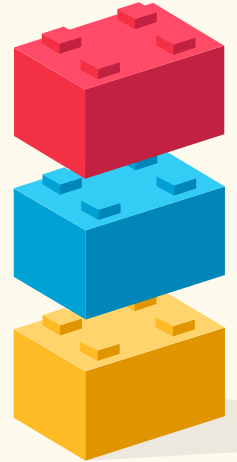
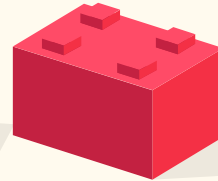
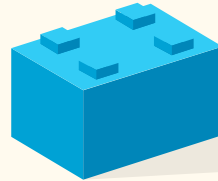
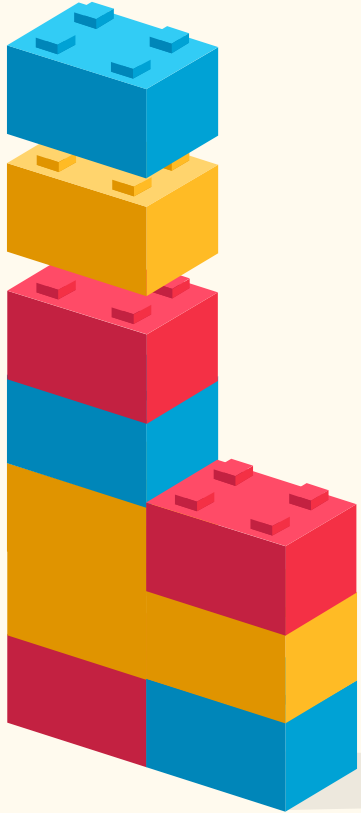
1. 2; 7 male reportedly using 1 word consistently (mama), will sometimes repeat phrases
2. PLS-5 Auditory Comprehension SS 57, Expressive Communication SS
3. M-CHAT-R scores
4. Able to follow familiar, simple directions with gestural cues; unable to identify pictures, objects on request; displays communicative intent of protest; can display joint attention for preferred activity; vocalizes using /t, d, n, g, h/



External Evidence Sample Child

- Implementation | Autism PDC (unc.edu)

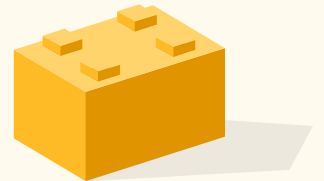
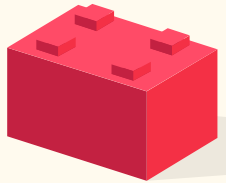
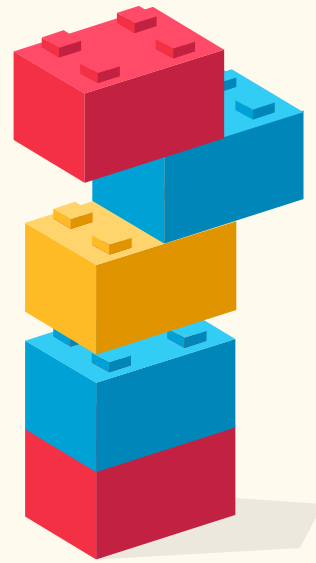
3. Assess your evidence: Internal and external



Assessing Internal Evidence—cont.

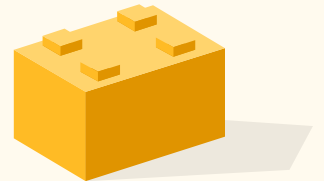
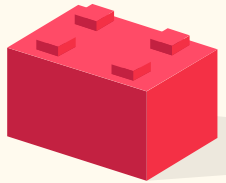
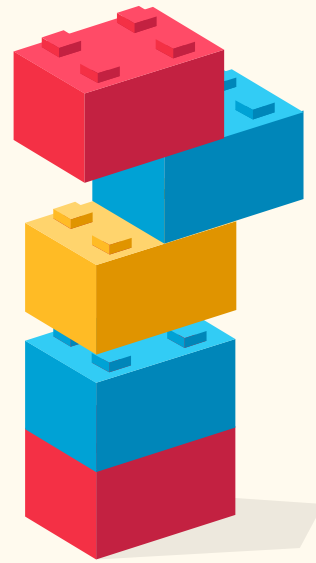
Questions to ask

1. Is child demonstrating a response to the intervention?
2. Is that response significant, especially for the child?
3. How much longer should you continue the intervention?
4. Is it time to change the therapy target, intervention approach, or service delivery model?

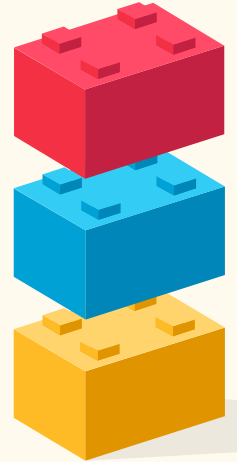
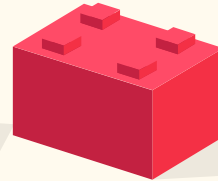
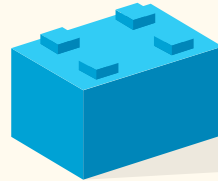
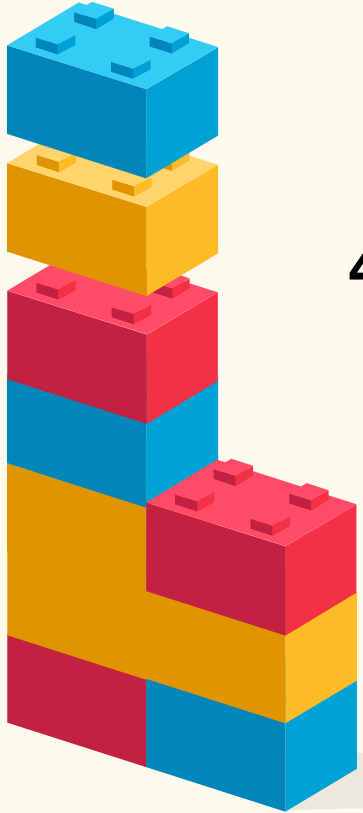


Assessing External Evidence

1. Is the external evidence reliable, important, and applicable to the child's needs?
2. Is the external evidence valid and trustworthy?
3. What are the results and conclusions of the external evidence?

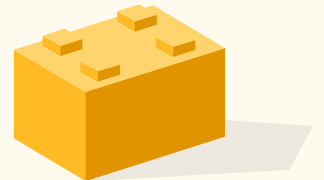
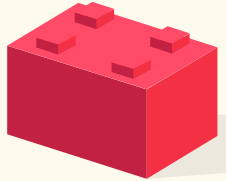
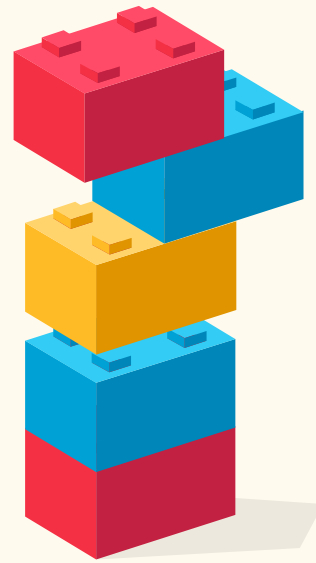


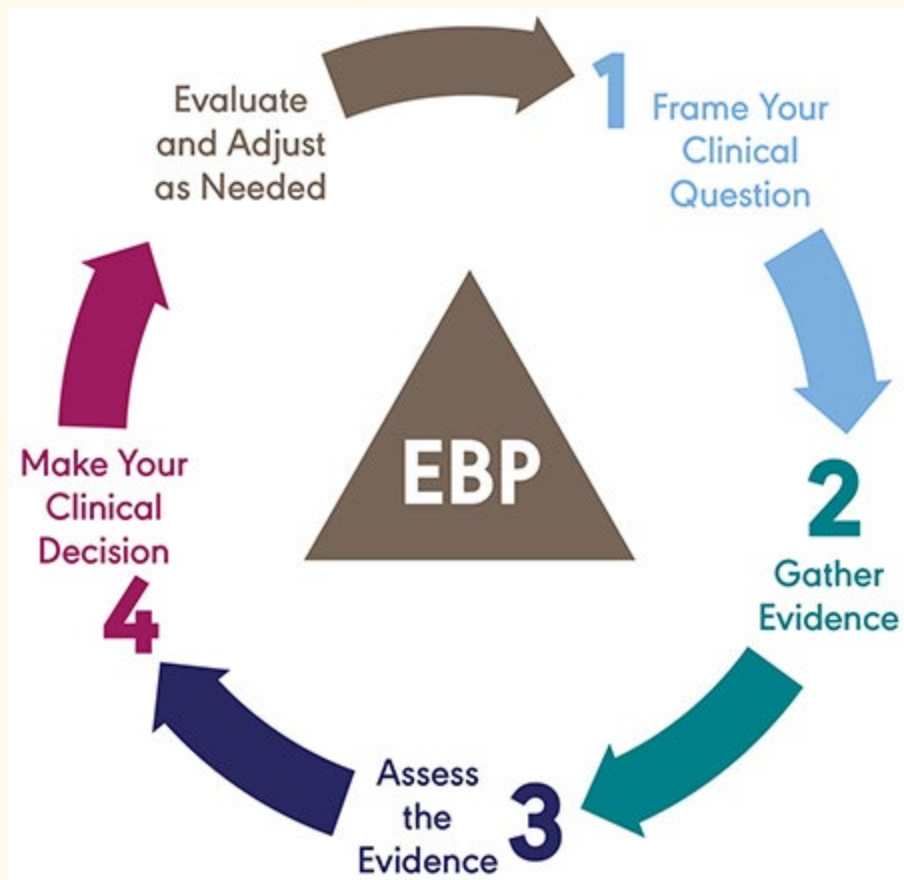
4. Make your clinical decision



Assessing Internal Evidence

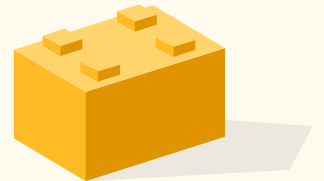
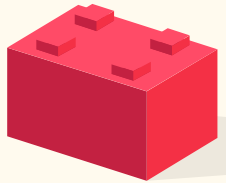
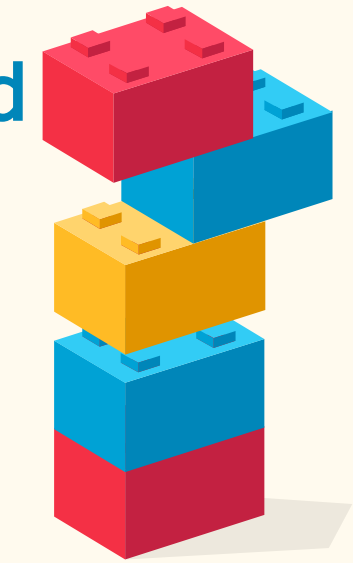
1. Data systematically collected from child (both subjective observations and objective performance data).
2. Data is collected across time to make sure child is making progress.
3. Clinician uses their clinical expertise to determine whether an intervention has impacted a child.



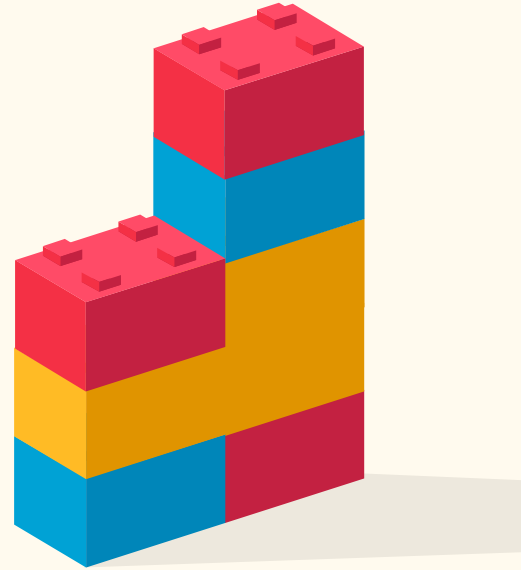
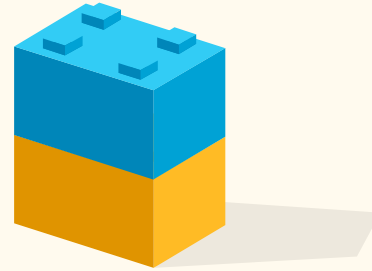
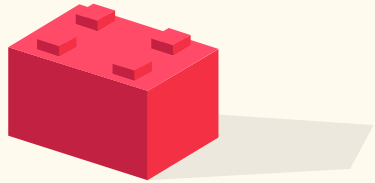


Assessing Internal Evidence Sample Child

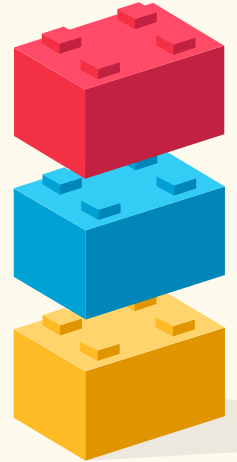
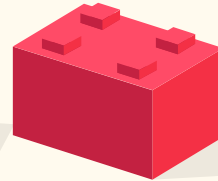
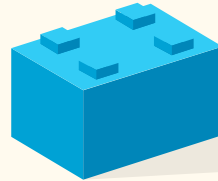
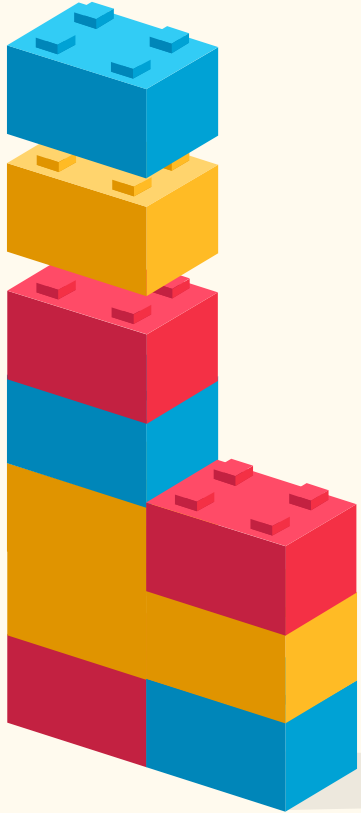
1. Spoken words not emerging
2. Team introduced LAMP on iPad in addition to language facilitation techniques, prompts, etc.
3. Child able to use iPad to demonstrate communicative intents of requesting help, requesting repetition, requesting objects
4. Child able to put 2-3 words together using LAMP



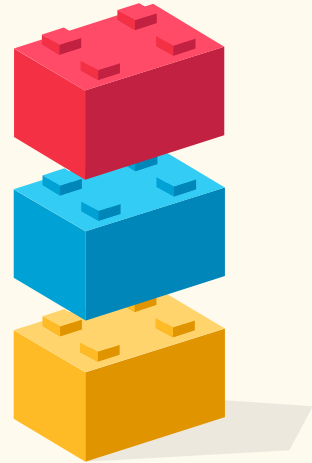
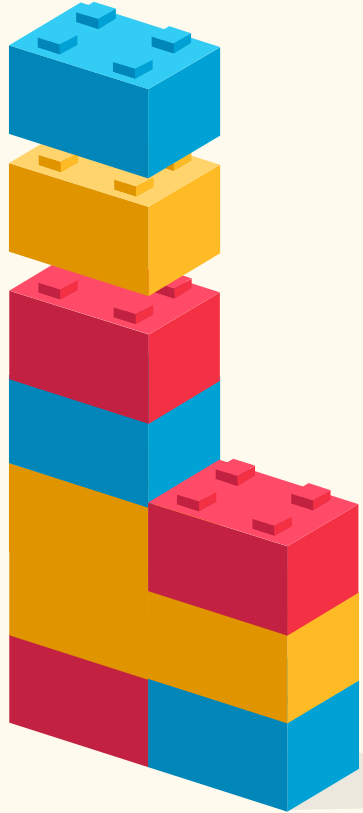
Strategies



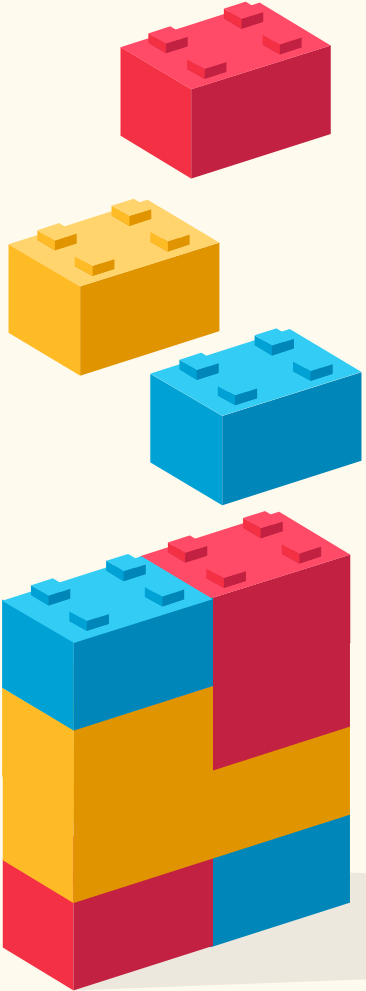
There is not a “one size fits all” intervention!



Client/family perspectives comprise one side of the EBP triangle! Clinical expertise comprises another side of the triangle!



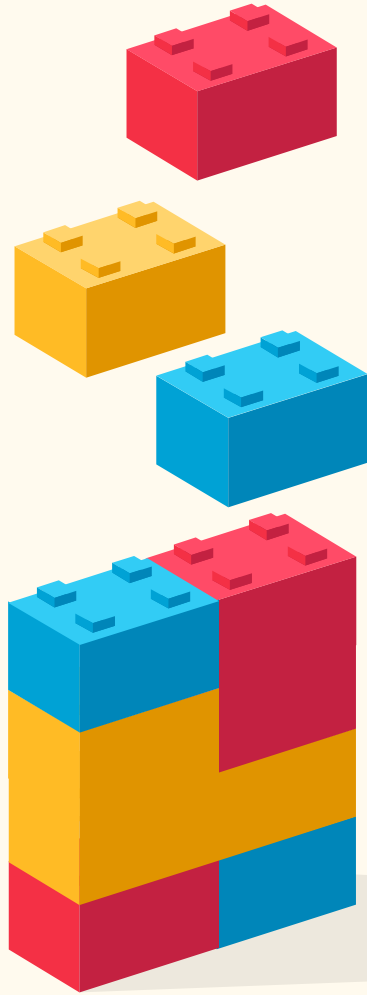
- Implementation | Autism PDC
(unc.edu)



Valuable Prelinguistic Skills for Predicting Expressive Language Skills in Children with ASD

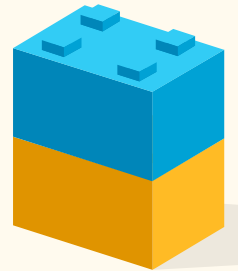
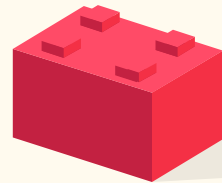
1. **Intentional communication/communicative intents**
2. **Consonant inventory in communication acts**
3. **Responding to joint attention**

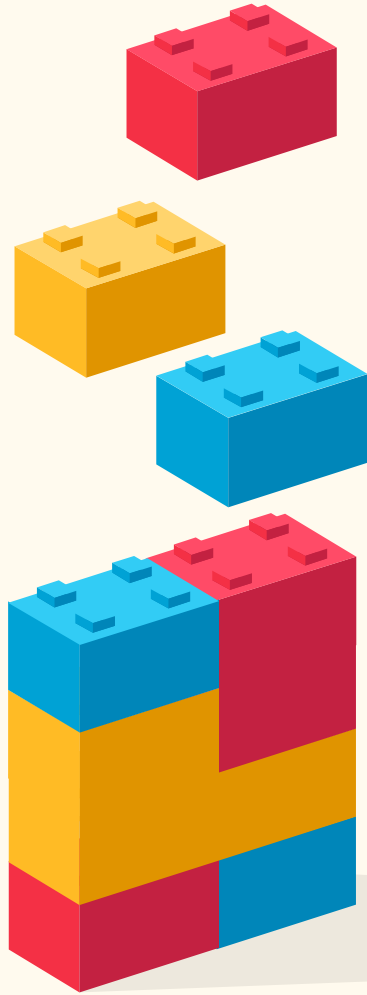
McDaniel, J. and Scheuele, C.M. 2021



“Changing the questions posed for progress monitoring for children with ASD who are preverbal could influence intervention practices positively. By changing the questions from “How many words does he use?” to questions...such as “Which sounds is he using communicatively?” and “How is she expressing her wants and needs?” the response changes to...what the child..can do”

McDaniel, J. and Scheuele, C.M. 2021

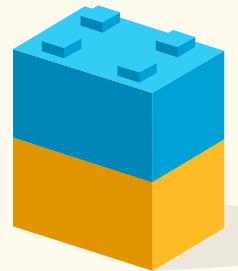
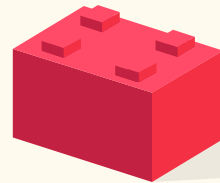


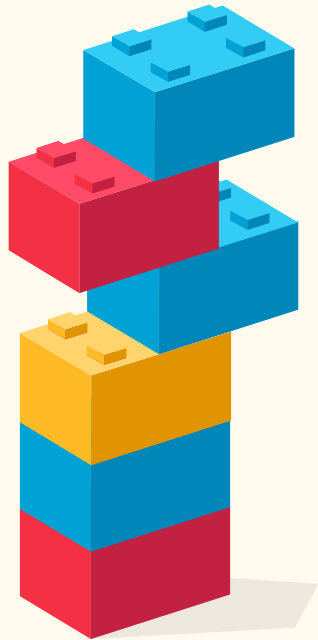


Use internal evidence telling you what the child CAN do and start there!

“Interventions that focus on teaching pre-linguistic skills to preverbal children with ASD have demonstrated success in facilitating spoken language”

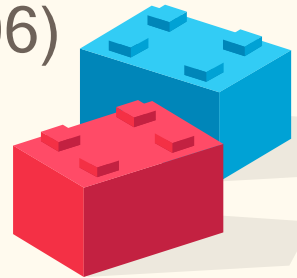
DiStefano, C., and Kasari, C. (2016)

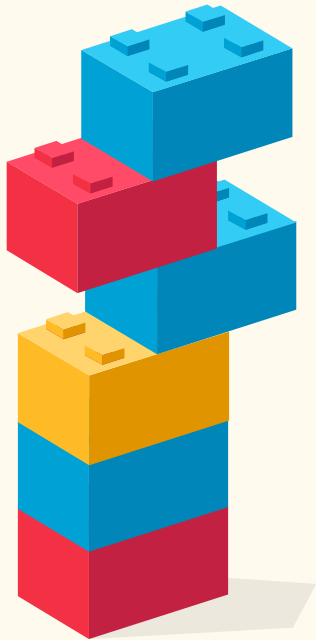




Engagement and relationship set the stage for intentionality and two-way communication.

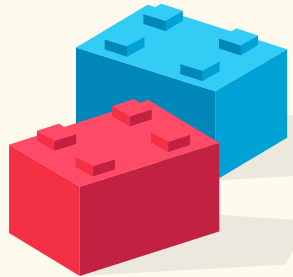
Greenspan S. I., and Wieder, S. (2006)

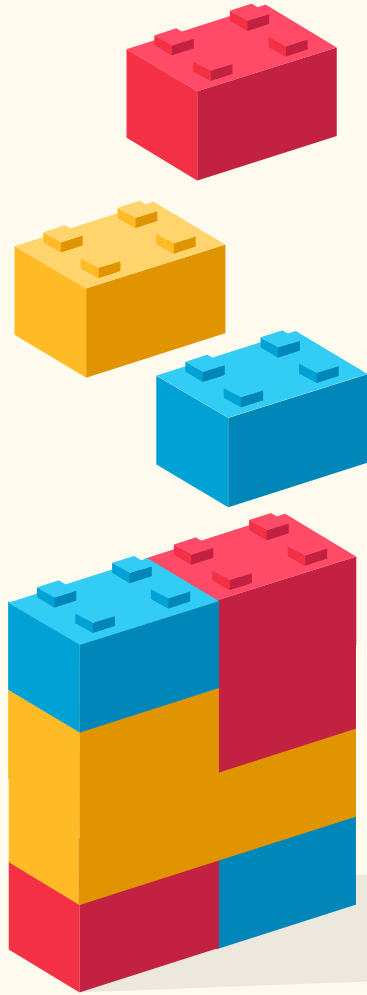




Meet the child where they are!

Yoder, P., and Mcduffie, A. (2006)

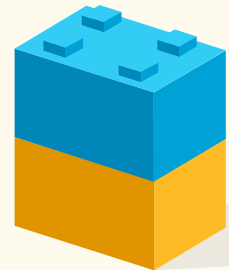
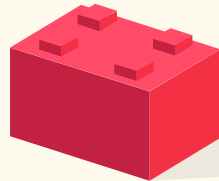




“Supported Joint Engagement”

Parent follows into and scaffolds the child’s ability to maintain her focus of attention. For example, parent might shake an object so child will continue to observe what it does.

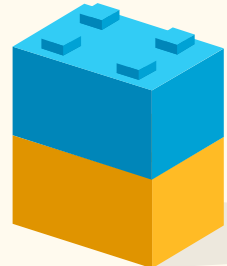
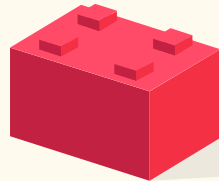
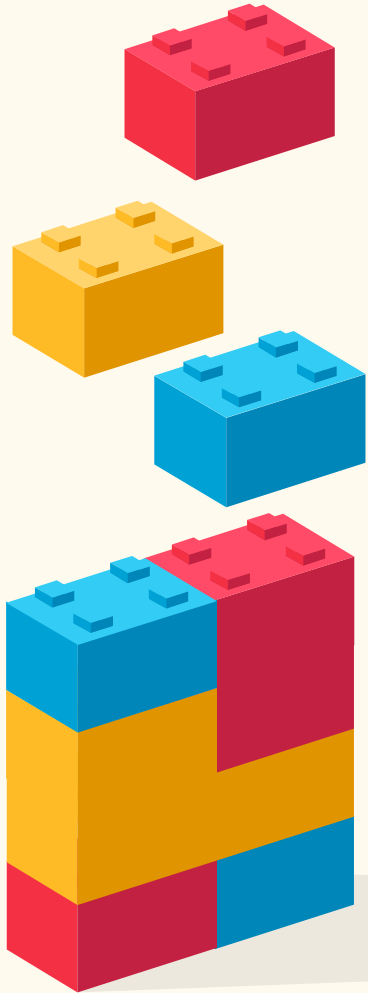
Yoder, P., and Mcduffie, A. (2006)



Naturalistic Treatment

1. Following the child's lead
2. Talking about what the child is doing
3. Imitating the child's utterances and actions with toys
4. Expanding the child's utterances
5. Manipulating environment to engage child

Yoder, P., and Mcduffie, A. (2006)





Object Play Skills

Summary of studies that emphasize interconnectedness of object play, intentional communication, and spoken communication in child with autism

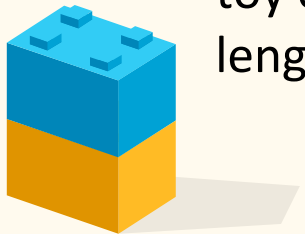
Yoder, P., and Mcduffie, A. (2006)



Minimally verbal children often show interest in their surroundings in different ways. Here are some ideas for getting started based on our shared clinical experience:

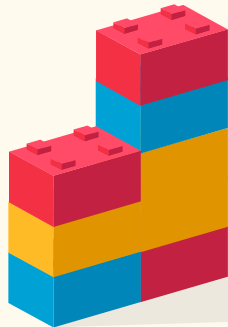
Interaction Style

1. Only enjoys a narrow range of objects or toys
2. Does not stay with one toy or activity for any length of time



Suggestions

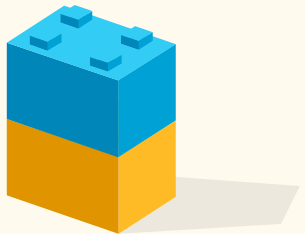
1. Join in playing with the same objects. Copy their play
2. Restrict access to all toys all the time. Put some up and when they choose one, try to extend play



Suggestions continued:

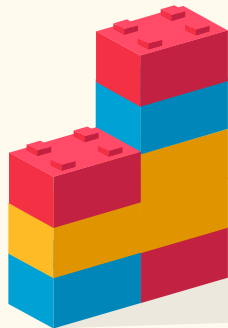
Interaction Style

1. Doesn't seem to acknowledge or respond



Suggestions

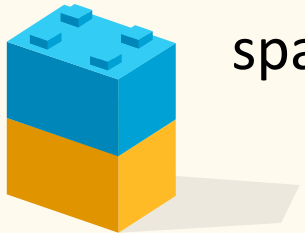
1. Be an observer and interpreter. How do they let you know what they want?



Suggestions continued:

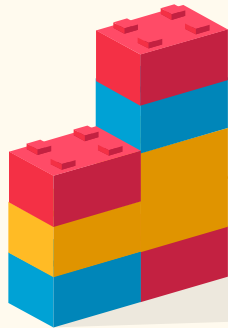
Interaction Style

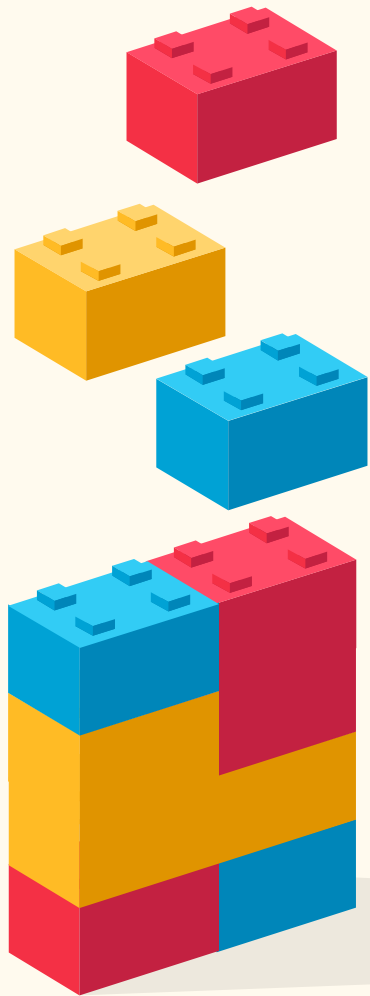
1. Doesn't really seem interested in any activities, likes to wander and explore spaces.



Suggestions

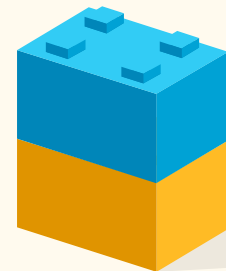
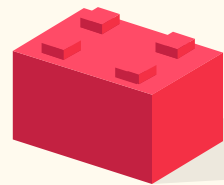
1. Try a sensory activity such as swinging them around, squeezing them tightly, tickling or playing chase.





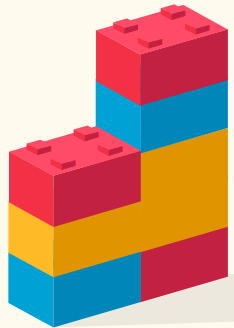
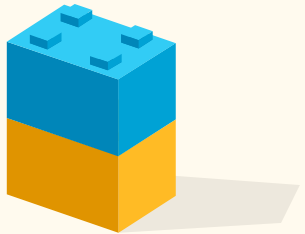
“Access to SGD along with a developmentally appropriate intervention has the potential to support expressive language development in minimally verbal children”

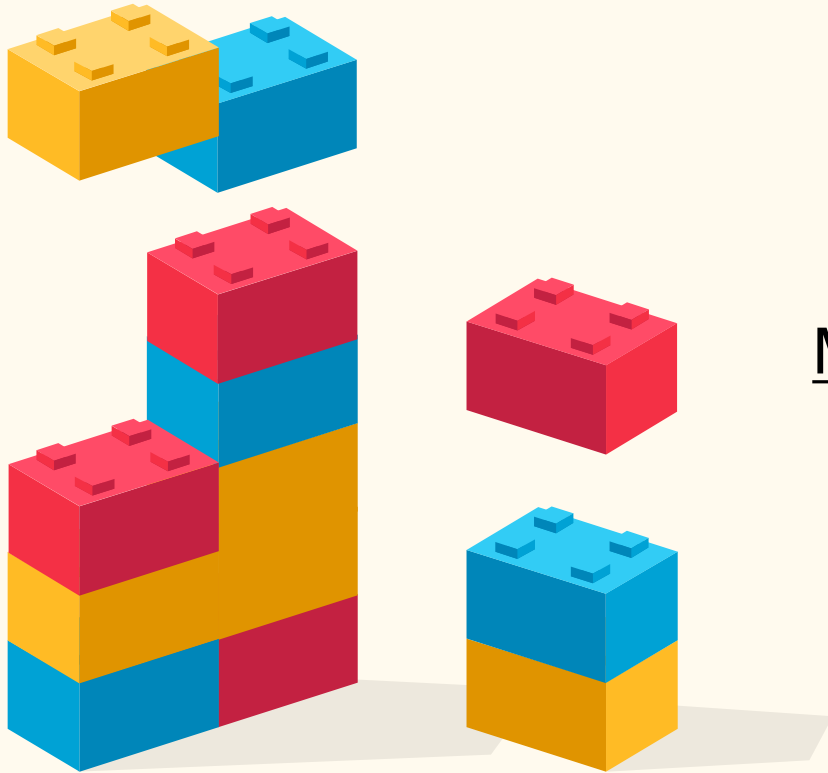
DiStefano, C., and Kasari, C. (2016)



With the previous suggestions, pair a word or phrase with the activity. This can be verbally or with Augmentative Alternative Communication.

Examples





Thanks!

Does anyone have any questions?

Beth-lane@ouhsc.edu

Mary-e-young@ouhsc.edu

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, infographics & images by **Freepik**

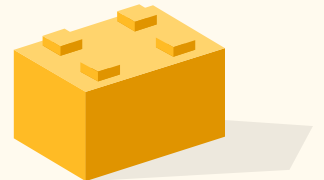
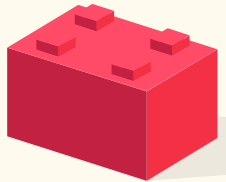
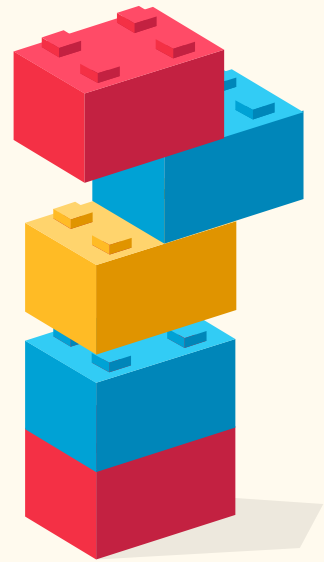
Resources

DiStefano, C., & Kasari, C. (2016). The window to language is still open: Distinguishing between preverbal and minimally verbal children with ASD. *Perspectives of the ASHA Special Interest Groups, SIG 1, (1)*, 4-11, <https://doi.org/10.1044/persp1.SIG1.4>

Koegel, L.K., Bryan, K.M., Pumpki, L.S., Vaidya, M., & Camarata, S. (2020) Definitions of nonverbal and minimally verbal in research for autism: A systematic review of the literature. *Journal of Autism and Developmental Disorders, 50(8)*, 2957-2972, doi: 10.1007/s10803-020-04402-w. PMID: 32056115; PMCID: PMC7377965.

McDaniel, J., & Schuele, M. (2021). When will he talk? An Evidence-Based Tutorial for Measuring Progress Toward Use of Spoken Words in Preverbal Children with Autism Spectrum Disorder. *American Journal of Speech-Language Pathology, 30*, 1-18, https://doi.org/10.1044/2020_AJSLP-20-00206

Yoder, P., & McDuffie, A. (2006). Teaching young children with autism to talk. *Seminars in Speech and Language (27) 3*, 161-172.



Resources



**Centers for Disease Control
and Prevention**

<https://www.cdc.gov/ncbddd/autism/signs.html>



**American Speech and
Language Hearing
Association-Norms**

<https://www.asha.org/slp/schools/prof-consult/norms/>



Baby Navigator

<https://babynavigator.com/earlysignslookbooks/>



**The National Professional
Development Center on Autism
Spectrum Disorder**

[Implementation | Autism
PDC \(unc.edu\)](#)



**American Speech and
Language Hearing
Association**

<https://www.asha.org/research/ebp/evidence-based-practice-process/>