2022 AAC Doctoral Student Think Tank

# Measuring teacher communication during shared reading with children who use aac

# HELLO!

I am Sara Collins. I am a third-year PhD Student at Florida State University. I am interested in supporting accessible language and literacy practice for students with intellectual and developmental disabilities who have limited speech ability.

# Background

- ❑ Approximately 90% of children with IDD and limited speech ability do not obtain functional literacy skills by adulthood
- ❑ Early literacy skills in **word recognition** and **language comprehension** are essential for future reading ability

- ❑ **Shared storybook reading** supports literacy development in children who use AAC

# HOW DOES THIS WORK IN classrooms?

o Adult scaffolding and child engagement

o Scaffolding among 4 main elements: (1) vocabulary and oral language, (2) abstract thinking, (3) print and phonological awareness, (4) elaborative responses to text

# The systematic assessment of shared book reading (Sabr)

Examines teachers' shared reading behaviors to provide them support in developing children's language and literacy abilities

Meaning Codes:
Define/Elaborate Vocabulary

https://public.cliengage.org/systematic-assessment-of-book-reading-sabr-2-0/sabr-short-form-video/

Let's try it together!

# Limitations of the sabr

- Measures communication primarily through spoken interactions

- We are unsure how teachers of children who use AAC are eliciting communication within group shared reading activities

- **No study has used a measure of group shared reading experiences adapted to document teachers' integration of AAC**



SABR 2.2 Video Coding Sheet

Video ID: _____

**TOPIC/CONTENT CODES: ALL TEACHER TALK**

These categories only apply to teacher utterances; these utterances can co-occur, but Literacy- or Meaning-Related trump Behavior if within one utterance.

| Behavior Code TEACHER TALK | Definition and common phrases | Frequency Counts | | |
|---|---|---|---|---|
| | | BEFORE | DURING | AFTER |
| Redirection/ Reminders | Definition: Positive and negative behavior management related talk (redirection and reminders) Key phrases: Raise your hand, just a minute, hold on, I am looking for..., I like how..., shhh, sit down, wait, wait your turn, stop, be quiet; Look, see (Do not double count attention-directing words if they are embedded in a longer behavior-focused utterance, e.g. Sit crisscross applesauce and look up here!) | | | |

| Literacy Codes TEACHER TALK | Definition and Common Phrases | Frequency Counts | | |
|---|---|---|---|---|
| | | BEFORE | DURING | AFTER |
| Book and Print Conventions | Definition: Talks about how to use books, book parts or rules and conventions that English print requires. Keywords/phrases: Title, title page, page, cover, spine, end pages, dedication page, turn page, left/ right, top/bottom, "this is called" + title of book, genre | | | |
| Letters/Words/Writing | Definition: Talks about letter names, letter sounds, alphabetical order or letter features; identifies whole words in print; models writing of words; talks about how to write, invented spelling, or writing notes to friends Keywords: Letters, uppercase, lowercase, letter sound, starts with + letter name, rhyming word, write, writing center | | | |

| Meaning Codes TEACHER TALK | Definition and Common Phrases | Frequency Counts | | |
|---|---|---|---|---|
| | | BEFORE | DURING | AFTER |
| Character References | Definition: Names specific characters with proper noun. Keywords: Proper nouns that name characters in text (e.g. Petunia, Diego) | | | |
| Cognition | Definition: Indicates cognitive processes in the brain. Keywords: Think, know, believe, make believe, remember/remind, pretend, idea, plan, find out, learn, understand, imagine/imagination, wonder, guess, decide/decision, choose/chose/choice, pick | | | |
| Feelings/Emotions | Definition: Captures feeling/emotions. Common keywords: Mad, sad, happy, angry, sorry, miss, scared | | | |
| Define/Elaborate on Vocabulary | Definition: Asks for or providing a word's definition, or elaborating on word meaning. Key phrases: "What does __ mean?"; "The word __ means ..." | | | |
| Act Out/Pretend | Definition: Promotes dramatization of the book or other pretend role-play. Key phrases: "Let's pretend..."; "Let's imagine..."; make believe, (dramatic) play | | | |

| Other Observations TEACHER TALK | Author/Illustrator reference | Making Predictions | Making Connections | Background Knowledge | Causal Reasoning/ Problem Solving | Judgments/Opinions | Desires/ Preferences |
|---|---|---|---|---|---|---|---|
| Check modifiers if 1+ utterances | ☐ Yes ☐ No authors write words, illustrators draw pictures | ☐ Yes ☐ No "What will happen...?"; "Guess what's next?"; "I expect..." | ☐ Yes ☐ No "Remember when we..."; "Reminds me of our..." | ☐ Yes ☐ No "What do you know about...?" | ☐ Yes ☐ No because, why?, since/so, problem, solve, trouble | ☐ Yes ☐ No mean/nice, bossy, fair, smart, friendly, bully, agree, good/bad | ☐ Yes ☐ No like, dislike, want, hate, decide, favorite |

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| Other Observations TEACHER TALK<br><br>Check modifiers if 1+ utterances | Author/Illustrator reference<br><br>☐ Yes  ☐ No<br>*authors write words, illustrators draw pictures* | Making Predictions<br><br>☐ Yes  ☐ No<br>*"What will happen…?"; "Guess what's next?"; "I expect…"* | Making Connections<br><br>☐ Yes  ☐ No<br>*"Remember when we…"; "Reminds me of our…"* | Background Knowledge<br><br>☐ Yes  ☐ No<br>*"What do you know about…?"* | Causal Reasoning/ Problem Solving<br><br>☐ Yes  ☐ No<br>*because, why?, since/so, problem, solve, trouble* | Judgments/Opinions<br><br>☐ Yes  ☐ No<br>*mean/nice, bossy, fair, smart, friendly, bully, agree, good/bad* | Desires/ Preferences<br><br>☐ Yes  ☐ No<br>*like, dislike, want, hate, decide, favorite* |
|---|---|---|---|---|---|---|---|

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| **Cognition** | <u>Definition</u>: Indicates cognitive processes in the brain.<br><br><u>Keywords</u>: *Think, know, believe, make believe, remember/remind, pretend, idea, plan, find out, learn, understand, imagine/imagination, wonder, guess, decide/decision, choose/chose/choice, pick* | | | |
| **Feelings/Emotions** | <u>Definition</u>: Captures feeling/emotions.<br><br>~~Common keywords: Mad, sad, happy, angry, sorry, nice, scared~~ | | | |
| **Define/Elaborate on Vocabulary** | <u>Definition</u>: Asks for or providing a word's definition, or elaborating on word meaning.<br><br><u>Key phrases</u>: *"What does __ mean?"; "The word __ means …"* | | | |
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| Other Observations TEACHER TALK<br><br>Check modifiers if 1+ utterances | Author/Illustrator reference<br><br>☐ Yes ☐ No<br>*authors write words, illustrators draw pictures* | Making Predictions<br><br>☐ Yes ☐ No<br>*"What will happen…?"; "Guess what's next?"; "I expect…"* | Making Connections<br><br>☐ Yes ☐ No<br>*"Remember when we…"; "Reminds me of our…"* | Background Knowledge<br><br>☐ Yes ☐ No<br>*"What do you know about…?"* | Causal Reasoning/ Problem Solving<br><br>☐ Yes ☐ No<br>*because, why?, since/so, problem, solve, trouble* | Judgments/Opinions<br><br>☐ Yes ☐ No<br>*mean/nice, bossy, fair, smart, friendly, bully, agree, good/bad* | Desires/ Preferences<br><br>☐ Yes ☐ No<br>*like, dislike, want, hate, decide, favorite* |
|---|---|---|---|---|---|---|---|

# The proposed solution

## DEVELOP AN ASSESSMENT

and examine its reliability by obtaining measures of **internal consistency** and **inter-rater reliability** of test items

## DESCRIBE TEACHER COMMUNICATION

by examining their **form**, or *modality* of communication (e.g., speech, AAC, gestures) and **function**, or *intent* of communication (e.g., asking questions, letter-identification)

## IDENTIFY RELATIONSHIPS

between **teacher communication** and **child abilities** in *receptive language, vocabulary, speech ability, and early literacy*

# Sample and inclusionary criteria

- X 15 **children** with IDD who use AAC
- X Age 4-5
- X Uses less than 50 spoken words
- X Present during group shared reading
- X Can point to test stimuli
- X Functional hearing and vision
- X Intentional communication skills
- X English primary language

- X 15 **preschool teachers** of children with IDD who use AAC
- X Age 18 or older
- X Engages in whole-group shared reading at least weekly
- X English primary language

Examining the reliability of a developed teacher communication measure
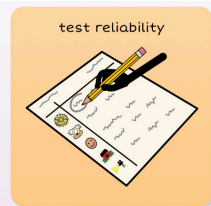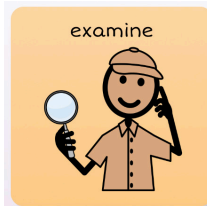
# Developing a tool

✗ Previous work has examined the strategies teachers can use to incorporate AAC

✗ We will observe one 15- to 30-minute group shared-reading activity in a preschool classroom

✗ We will adapt the short SABR form to capture teacher behavior that facilitates child engagement through the use of AAC

| Character References | Definition: Names specific characters with proper noun.<br><br>Keywords: Proper nouns that name characters in text (e.g. Petunia, Diego) |
| --- | --- |
| **Character References** | **Definition: Identifies specific characters with Proper nouns in story and on communication system. Provides vocabulary in communication system.**<br><br>**Keywords: Proper nouns that name characters in text (e.g. Petunia, Diego)** |

| Define/Elaborate on Vocabulary | Definition: Asks for or providing a word's definition, or elaborating on word meaning.<br><br>Key phrases: *"What does __ mean?"; "The word __ means …"* |
| --- | --- |
| Define/Elaborate on Vocabulary | Definition: Providing word definition/representation on communication system (e.g., providing pictures and visuals to represent word meaning)<br><br>Key phrases: "Show me what *bounce* looks like" |

# Examining its reliability

X  <u>Internal consistency</u> will be estimated using both Cronbach's **alpha** and **omega** for the four constructs of measurement

X  <u>Inter-rater reliability</u> will be computed by determining **intraclass correlation coefficients** (ICC) for each construct

Using adapted tool to describe teacher communication with children who use AAC

describe

shared reading
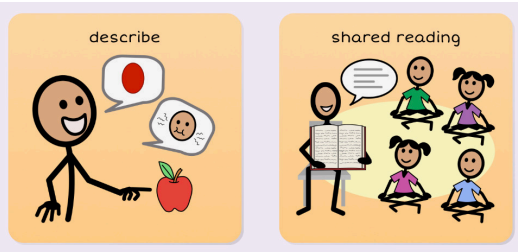
## Describing teacher communication

X  Previous work has developed tools documenting child behavior in response to teachers' incorporation of AAC, but <u>no tool has focused on teacher behavior</u> to inform instruction

X  We will use observational coding to describe the number of communicative <u>functions</u> and <u>forms</u> teachers use to engage children who use AAC

## SABR CODING

| | | | |
|---|---|---|---|
| Definition: Asks for or providing a word's definition, or elaborating on word meaning. <br><br> Key phrases: "What does __ mean?"; "The word __ means …" | | | |
| Definition: Providing word definition/representation on communication system (e.g., providing pictures and visuals to represent word meaning) <br><br> Key phrases: "Show me what *bounce* looks like" | Before | During | After |

## SALT CODING

C Show me what bounce looks like[S][AAC].
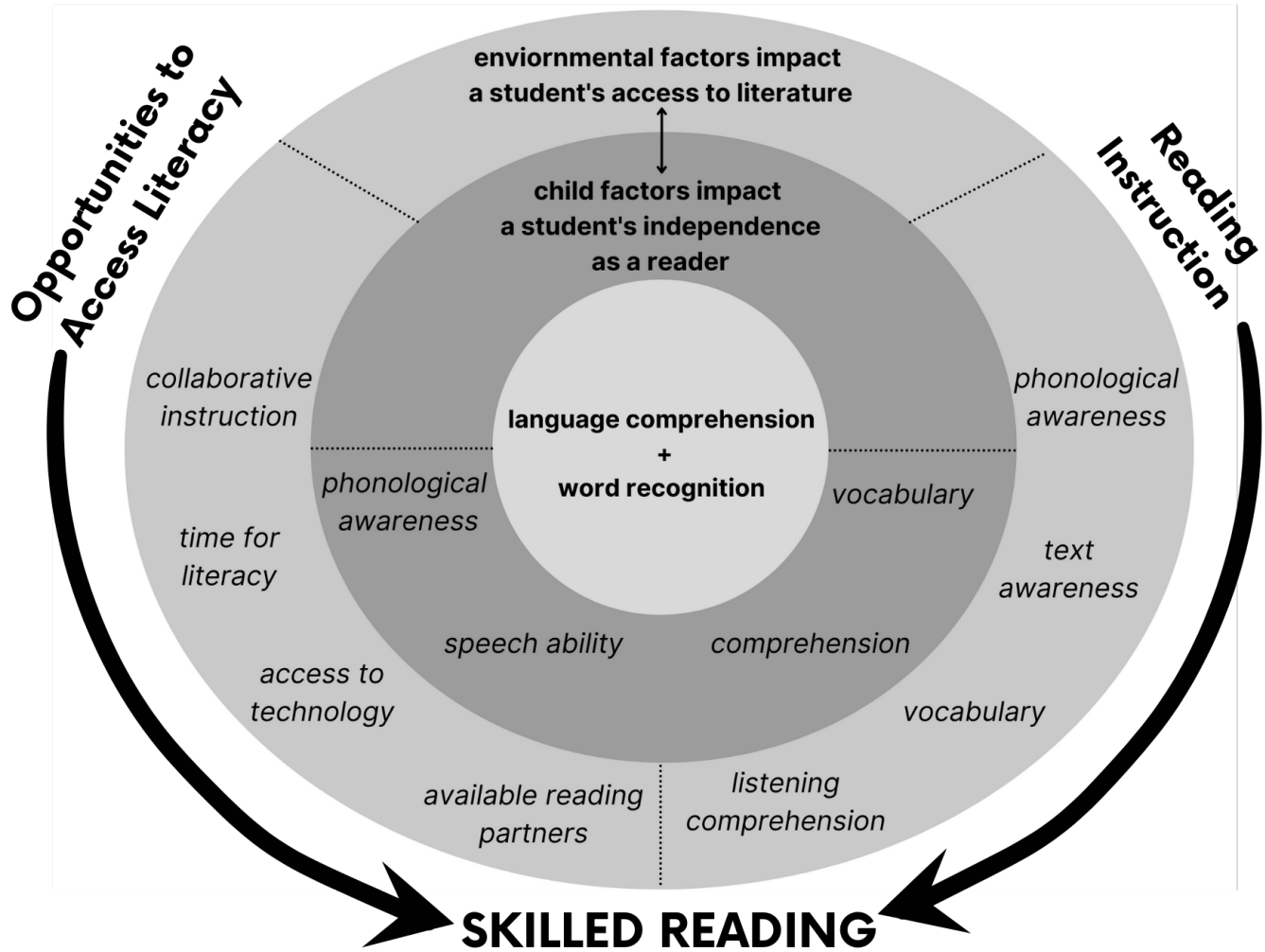
# Identify relationships between teacher communication and child abilities

Teacher

Student
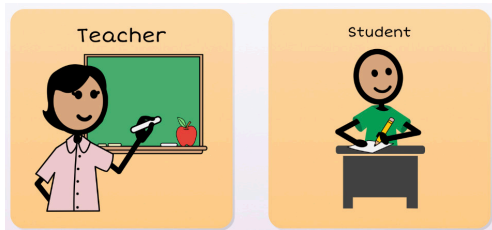
# HOW DOES TEACHER COMMUNICATION RELATE TO CHILDREN'S LANGUAGE, LITERACY, AND SPEECH ABILITIES?

- Our ongoing work describes relationships between **access to literacy activities** and **child abilities** (Barton-Hulsey, Sevcik, Romski, & Collins, *under review*)
- We will examine if teacher-led relate to their students' abilities
- Ultimately, children should have access to instruction based on the Science of Reading

Opportunities to Access Literacy

Reading Instruction

enviornmental factors impact a student's access to literature

child factors impact a student's independence as a reader

collaborative instruction

phonological awareness

language comprehension + word recognition

phonological awareness

vocabulary

time for literacy

text awareness

access to technology

speech ability

comprehension

vocabulary

available reading partners

listening comprehension

SKILLED READING

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SOUND LIKE A PLAN?

# Anticipated challenges

X Understanding and accounting for factors involved in planning, implementing, and sustaining literacy instruction with children who use AAC in their classrooms.

X Developing an assessment tool that documents the communication of teachers varying in training and access to resources that support literacy development using children's AAC systems.

# ADDRESSING POTENTIAL CHALLENGES

X Qualtrics survey

    X Teachers report barriers and facilitators to successful, **collaborative literacy instruction** for children who use AAC alongside **speech-language pathologists**

X Guiding implementation science framework for intervention

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✗ Developing an assessment tool that documents the communication of teachers varying in training and access to resources that support literacy development using children's AAC systems.

✗ **PollEv.com/saracollins643**

# Thanks!

**Any questions?**

Please contact me:
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- ➤ Twitter: @sara_c_collins

# Credits

Special thanks to all the people who made and released these awesome resources for free:

- ✗ Presentation template by SlidesCarnival
- ✗ Photographs by Unsplash
- ✗ References →

SCAN ME