# Classroom-wide Core Vocabulary Instruction for Students with Significant Cognitive Disabilities

Lori Geist, PhD, CCC-SLP
Assistant Professor
University of North Carolina at Chapel Hill

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill
www.project-core.com

# Disclaimer

This presentation was produced under U.S. Department of Education, Office of Special Education Programs Grant No. H327S140017. The views expressed herein do not necessarily represent the positions or policies of the Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, service or enterprise mentioned in this presentation is intended or should be inferred.

# Project Core Overview

- Develop a comprehensive implementation program for the delivery of the multi-tiered system for augmenting language (mSAL).

Distribute through Project CORE website

Develop implementation tools and training resources for effective use

Refine student communication supports

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Defining the Need

- Survey representing large sample of students with significant cognitive disabilities (*n*=38,038)
- 23% used aided AAC or sign language
  - 70% of aided AAC users and 84% of sign language users used only single symbols or signs for a restricted range of purposes.
- 9% were reported to have no symbolic system of communication
  - 45% used conventional gestures, 15% used unconventional gestures, 40% used reflexive, rather than intentional behaviors

Erickson & Geist (2016)

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Beliefs About Students

All individuals, regardless of the severity of their disability, have the basic right to ongoing instruction that will help them develop versatile communication skills.

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Beliefs About Teachers

Teachers have the ability to acquire the knowledge, skills, and dispositions needed to help students with significant cognitive disabilities acquire versatile communication skills using a core vocabulary approach.

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

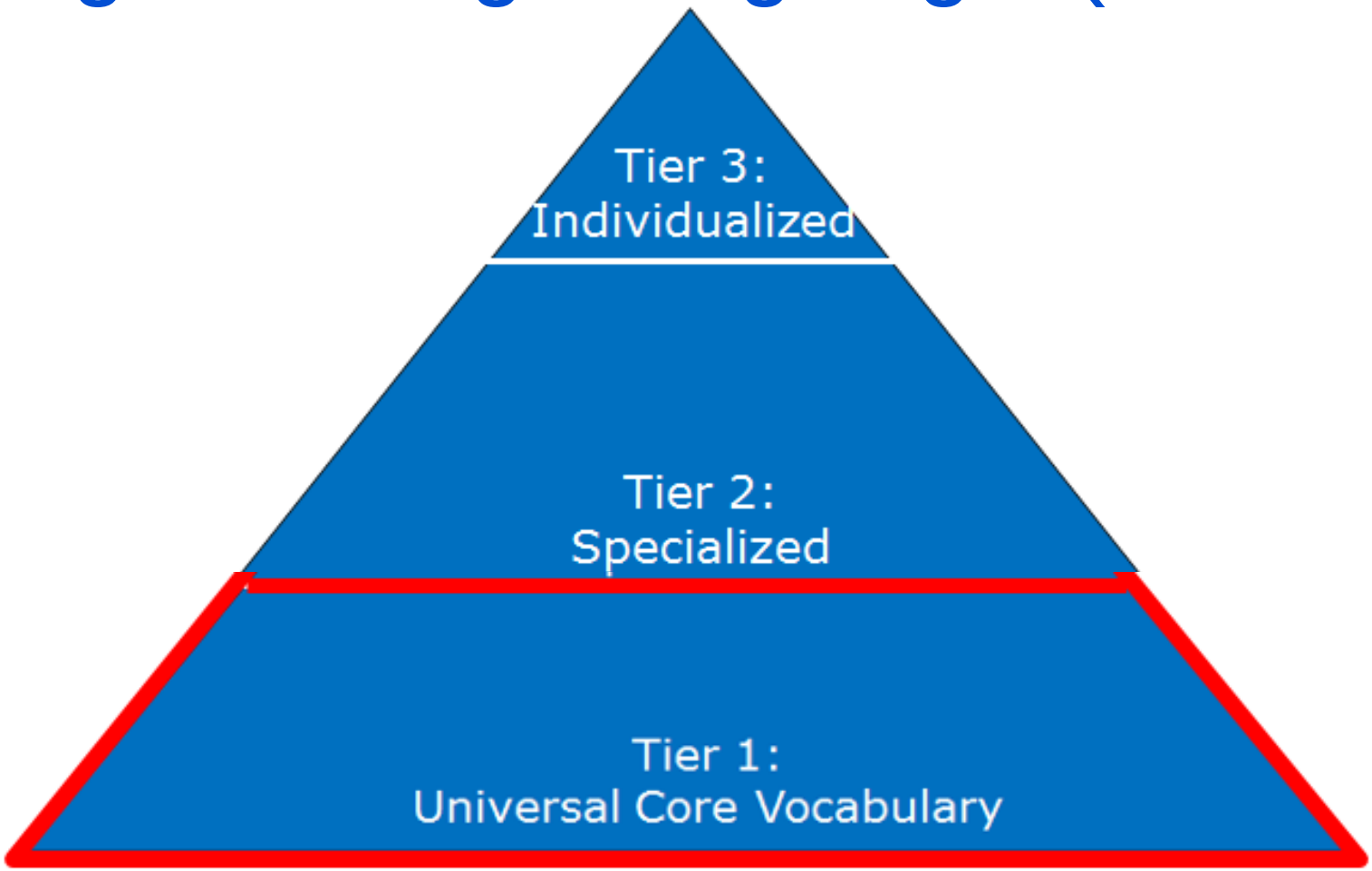
# Intended Outcomes

1. Improvements in student communication abilities and academic achievement.

2. Increases in frequency and quality of teacher use of Universal Core and other elements of mSAL.

3. Availability of a comprehensive implementation model to support mSAL use.

# Multi-Tiered System for Augmenting Language (mSAL)




©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Multi-Tiered System for Augmenting Language (mSAL)

- Elements of each Tier:
  - a well-organized AAC system
  - core vocabulary and symbols
  - use of natural everyday environments for teaching
  - models of symbol use by partners
  - ongoing resource support and feedback

Informed by Mary Ann Romski and Rose Sevcik's System for Augmenting Language (SAL) (1996)

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# What is Core Vocabulary?

- Limited set of highly useful words.
  - ~85% of spoken language is comprised of 250–350 words
- Vocabulary is primarily pronouns, verbs, descriptors, and prepositions. Very few nouns.

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

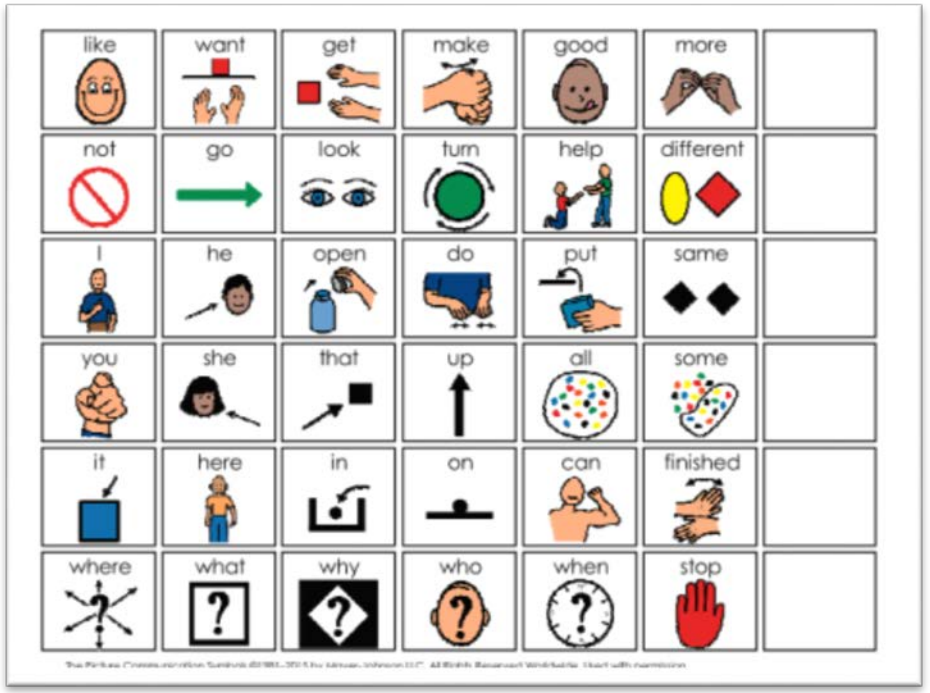
# Why Emphasize Core?

- **MANY** opportunities to teach and model each day, all day.
- Useful across settings, topics, purposes and people.
- Specialized and personalized vocabulary provide important, but far fewer opportunities to teach and model (targeted in mSAL at Tier 2 and 3)

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Universal Core Vocabulary

- 36 words
- Meaningful as single words
- Can be combined meaningfully
- Useful across environments, activities, and interactions

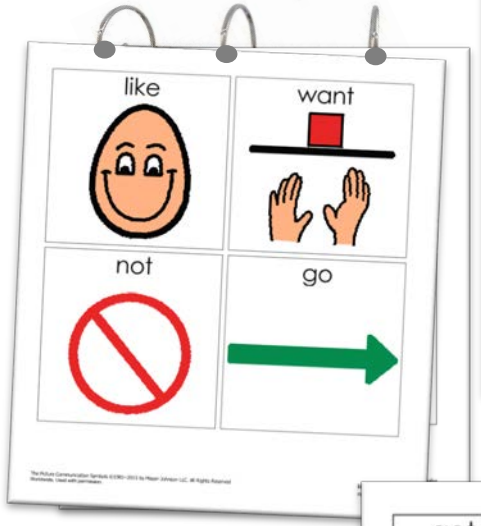


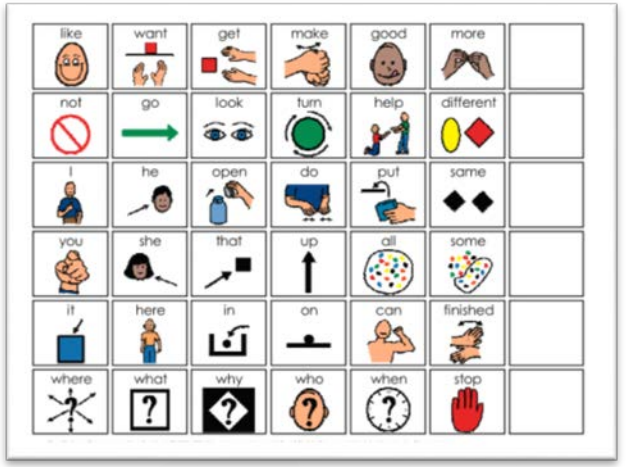

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

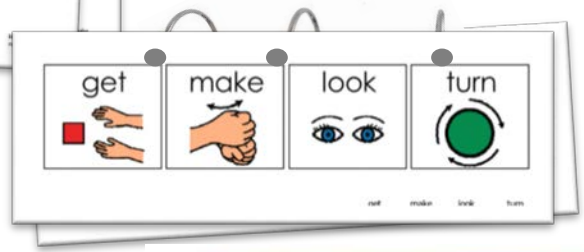
www.project-core.com

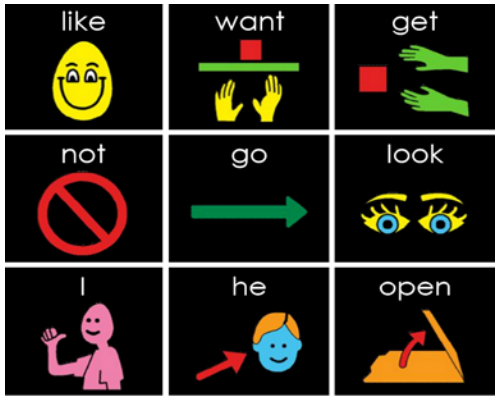
# Universal Core Vocabulary Formats

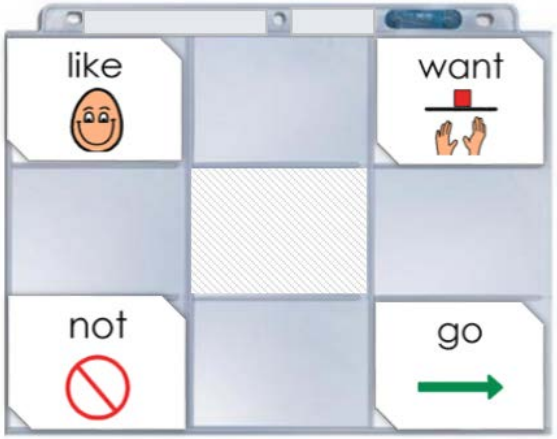
- 36 location boards
  - Individual use
  - Classroom use
- 9 location X 4 pages books
- 4 location x 9 pages books
  - 4 square (direct select)
  - 4 in-line (partner-assisted scanning)
- High contrast versions for all



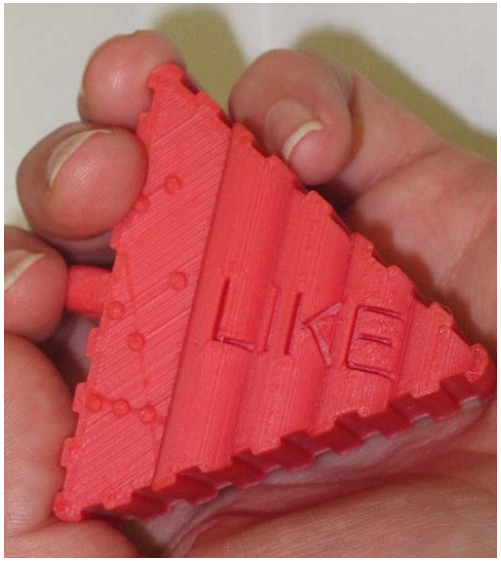



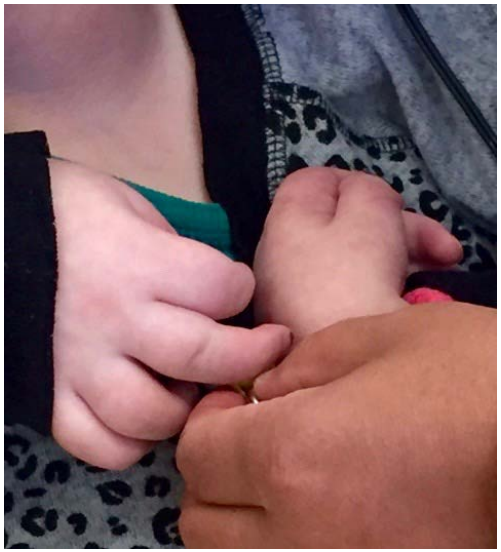



# 3D Tactual Symbols from Universal Core

- Represent select core words
- Offer consistency
- Each symbol includes:
  - Unique raised element
  - Printed word
  - Braille



**Everyone** communicates

# Communication Matrix

*by Dr. Charity Rowland of Oregon Health & Science University (original 1990, revisions in 1996 and 2004)*

www.communicationmatrix.org

- Skills assessment
- Earliest stages of communication
- Any form of communication, with or without symbol use
- Basic reasons to communicate (refuse, obtain, social, information)

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Communication Ability Levels

I. Pre-Intentional

II. Intentional Behaviors

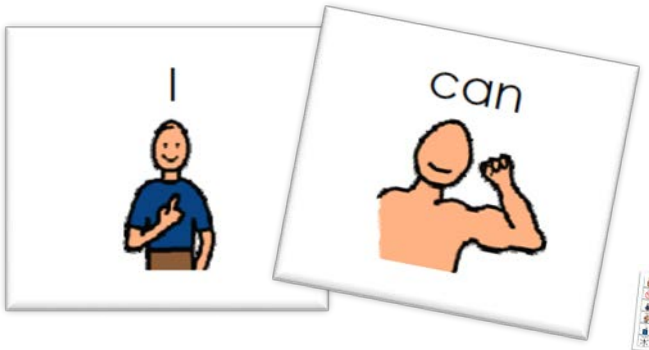
III. Unconventional Communication

IV. Conventional Communication

V. Concrete Symbols

VI. Abstract Symbols

VII. Language



©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Pre-intentional to Intentional & Pre-symbolic to Symbolic

# Case Examples

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Teaching Principles

- Encourage but do not require communication.
- Have the Universal Core with you and with the student at all times.
- Be patient, provide sufficient time for students to respond, and hold your point.
- Attribute meaning whenever possible.
- Use the Universal Core to model, repeat and expand.

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

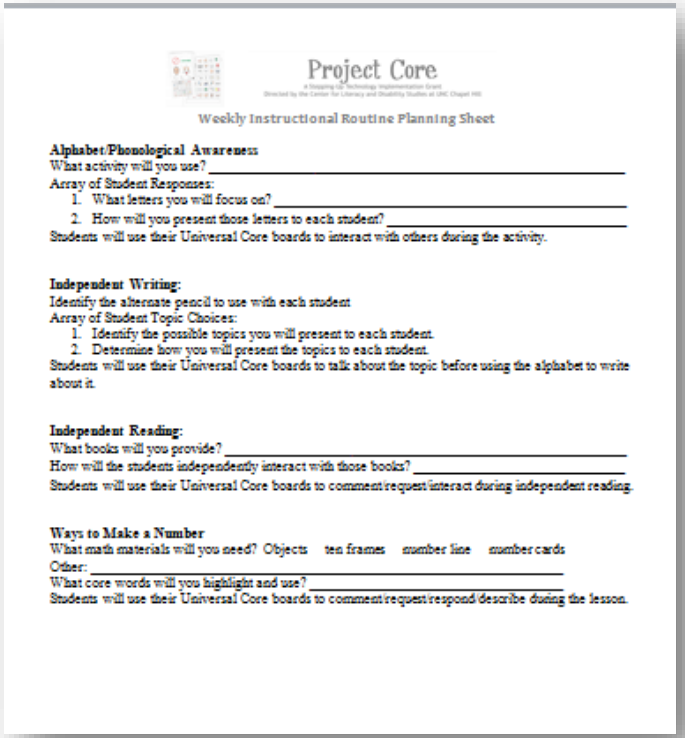
# Maximize Opportunities: Daily Routines

- Shared Reading
- Predictable Chart Writing
- Independent Reading
- Independent Writing
- Alphabet Knowledge/Phonological Awareness
- Math
- Specials
- Vocational Ed
- Art
- Music
- Lunch
- Personal Care
- Arrival/Departure

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Instructional Planning Supports

- Instructional planning for 5 common instructional routines.
- Model that can be applied to other routines/lesson plans.



Project Core

Weekly Instructional Routine Planning Sheet

**Alphabet/Phonological Awareness**
What activity will you use? _____
Array of Student Responses:
1. What letters you will focus on? _____
2. How will you present those letters to each student? _____

Students will use their Universal Core boards to interact with others during the activity.

**Independent Writing:**
Identify the alternate pencil to use with each student
Array of Student Topic Choices:
1. Identify the possible topics you will present to each student.
2. Determine how you will present the topics to each student.

Students will use their Universal Core boards to talk about the topic before using the alphabet to write about it.

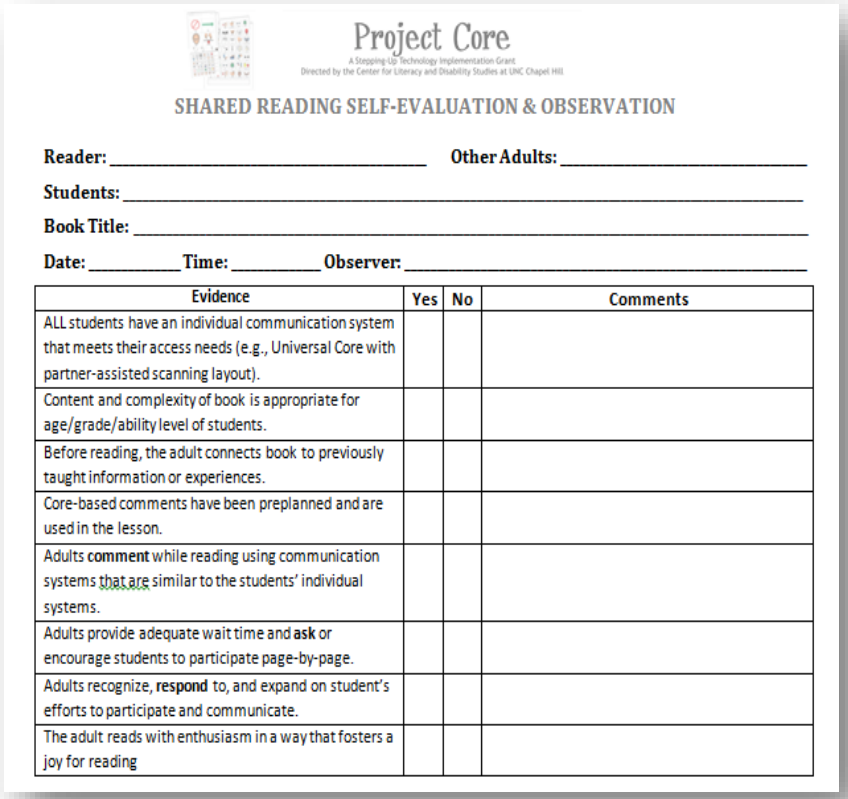
**Independent Reading:**
What books will you provide? _____
How will the students independently interact with those books? _____
Students will use their Universal Core boards to comment/request/interact during independent reading.

**Ways to Make a Number**
What math materials will you need? Objects ten frames number line number cards
Other: _____
What core words will you highlight and use? _____
Students will use their Universal Core boards to comment/request/respond/describe during the lesson.

©2016 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Self-Evaluation and Observation

- Guide teachers' self-assessment and reflection on use of mSAL and the Universal Core vocabulary.
- Support peer/coach/administrator observations.



Project Core

A Stepping Up Technology Implementation Grant
Directed by the Center for Literacy and Disability Studies at UNC Chapel Hill

SHARED READING SELF-EVALUATION & OBSERVATION

**Reader:** _____ **Other Adults:** _____

**Students:** _____

**Book Title:** _____

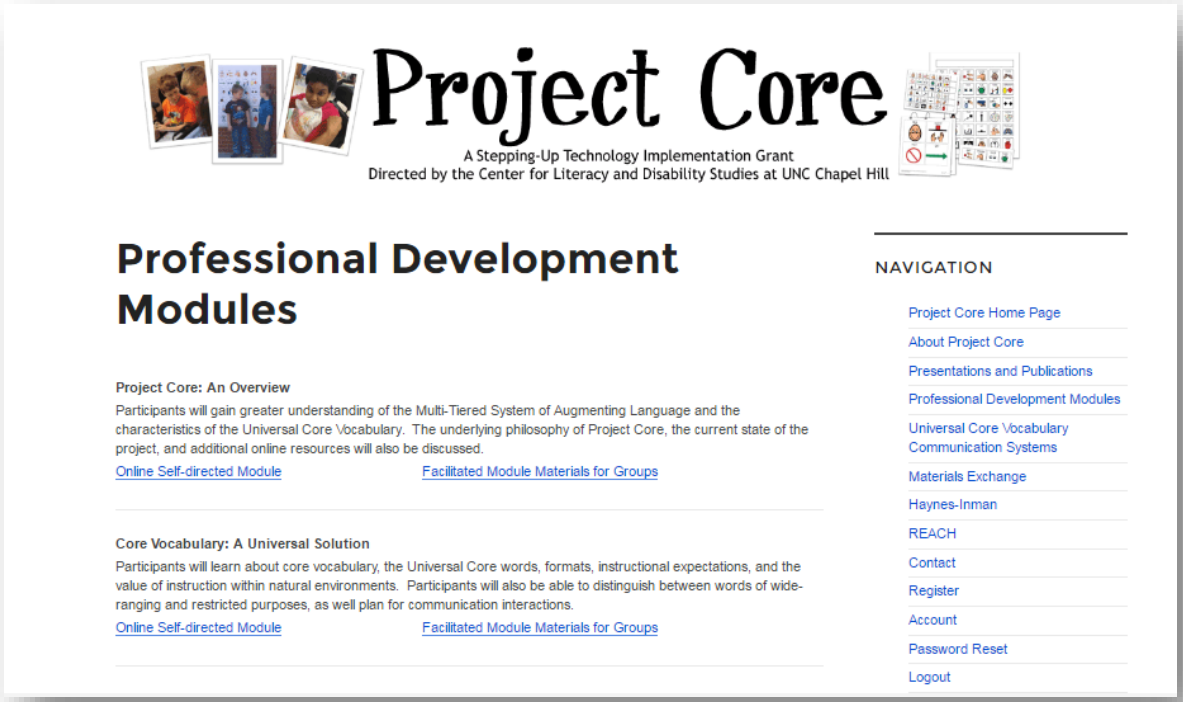
**Date:** _____ **Time:** _____ **Observer:** _____

| Evidence | Yes | No | Comments |
|---|---|---|---|
| ALL students have an individual communication system that meets their access needs (e.g., Universal Core with partner-assisted scanning layout). | | | |
| Content and complexity of book is appropriate for age/grade/ability level of students. | | | |
| Before reading, the adult connects book to previously taught information or experiences. | | | |
| Core-based comments have been preplanned and are used in the lesson. | | | |
| Adults **comment** while reading using communication systems that are similar to the students' individual systems. | | | |
| Adults provide adequate wait time and **ask** or encourage students to participate page-by-page. | | | |
| Adults recognize, **respond** to, and expand on student's efforts to participate and communicate. | | | |
| The adult reads with enthusiasm in a way that fosters a joy for reading | | | |

©2016 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Professional Development

- Library of self-directed modules
- Materials to facilitate group sessions




©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

**www.project-core.com**

# Review: Project Goal

- In collaboration with partner schools, develop, evaluate and refine tools for delivery of the multi-tiered system for augmenting language (mSAL).

- Gather data to inform design.

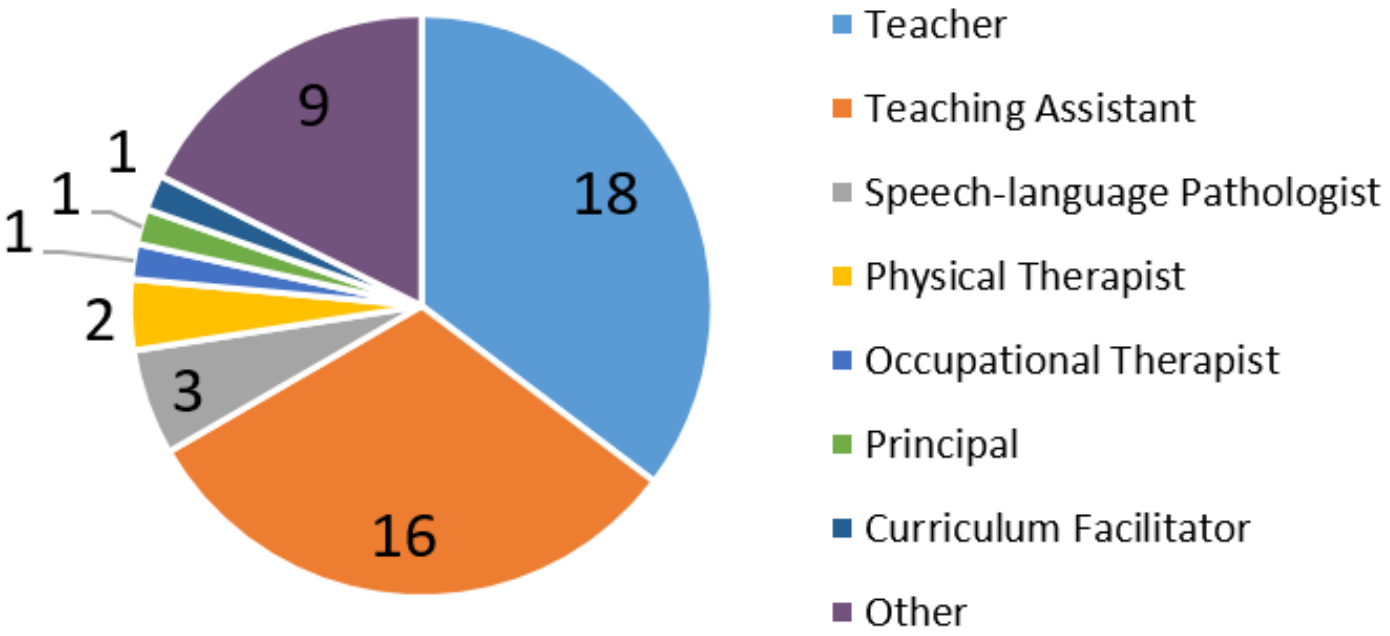
©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Descriptive Data

## Year 1 Review

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Professionals (*n*=51)

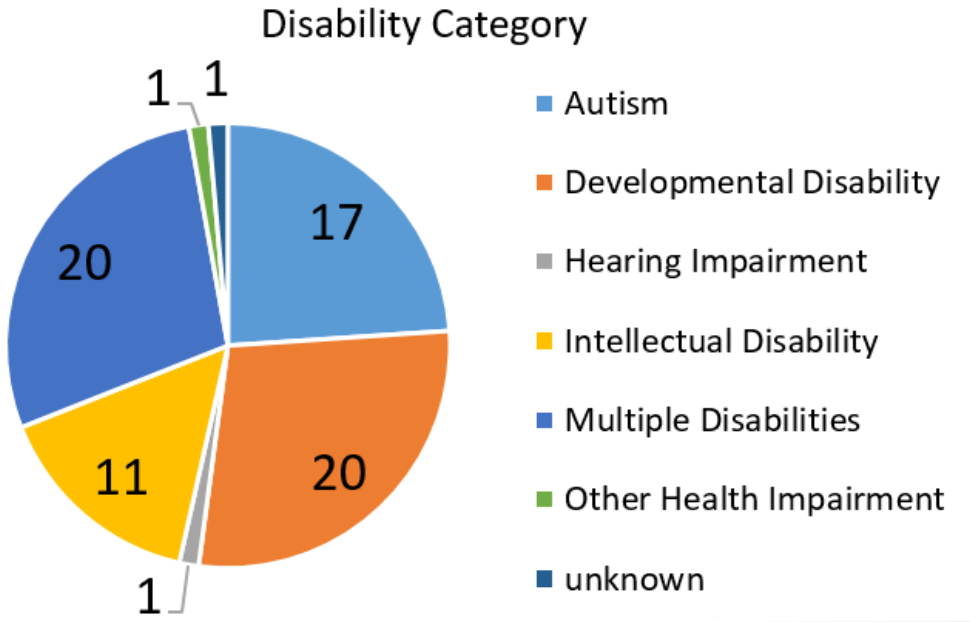


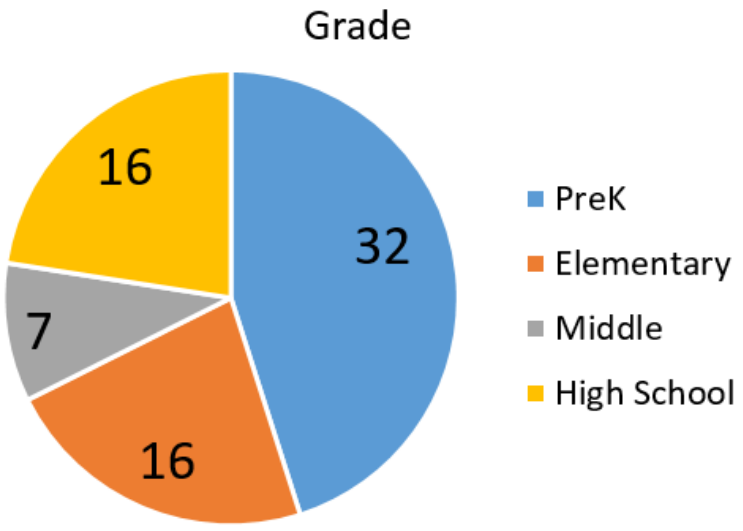

On average, participating teachers have several years of experience (*n*=16**;** *M*=13 years; *SD*=8 years)

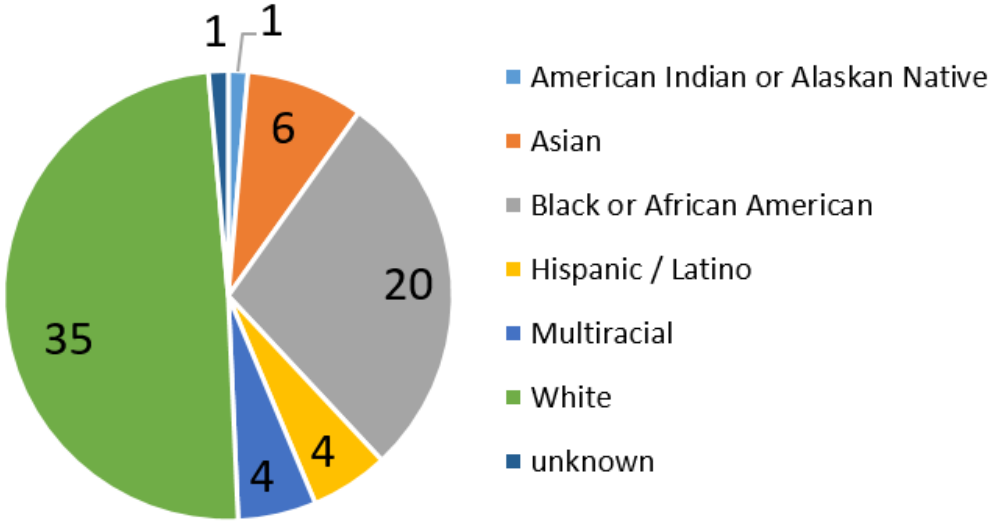
On average, participating teaching assistants are newer to the field (*n*=11; *M*=3.5 years; *SD*=2 years)

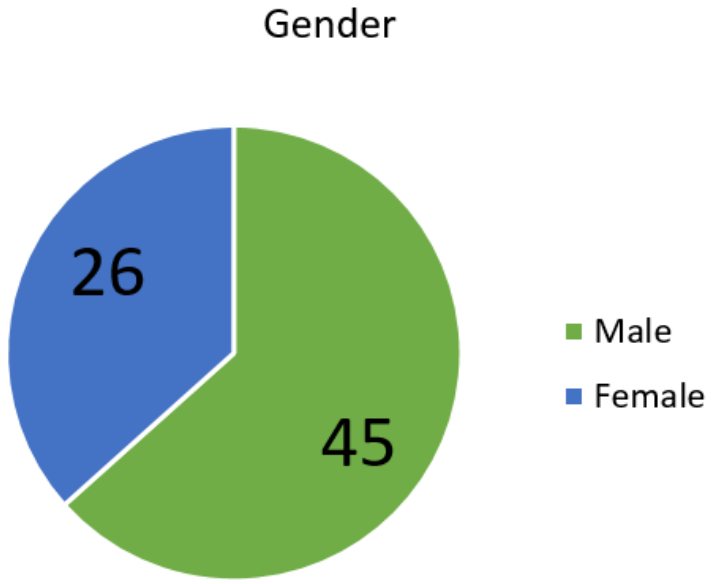
©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Students (*n*=71)



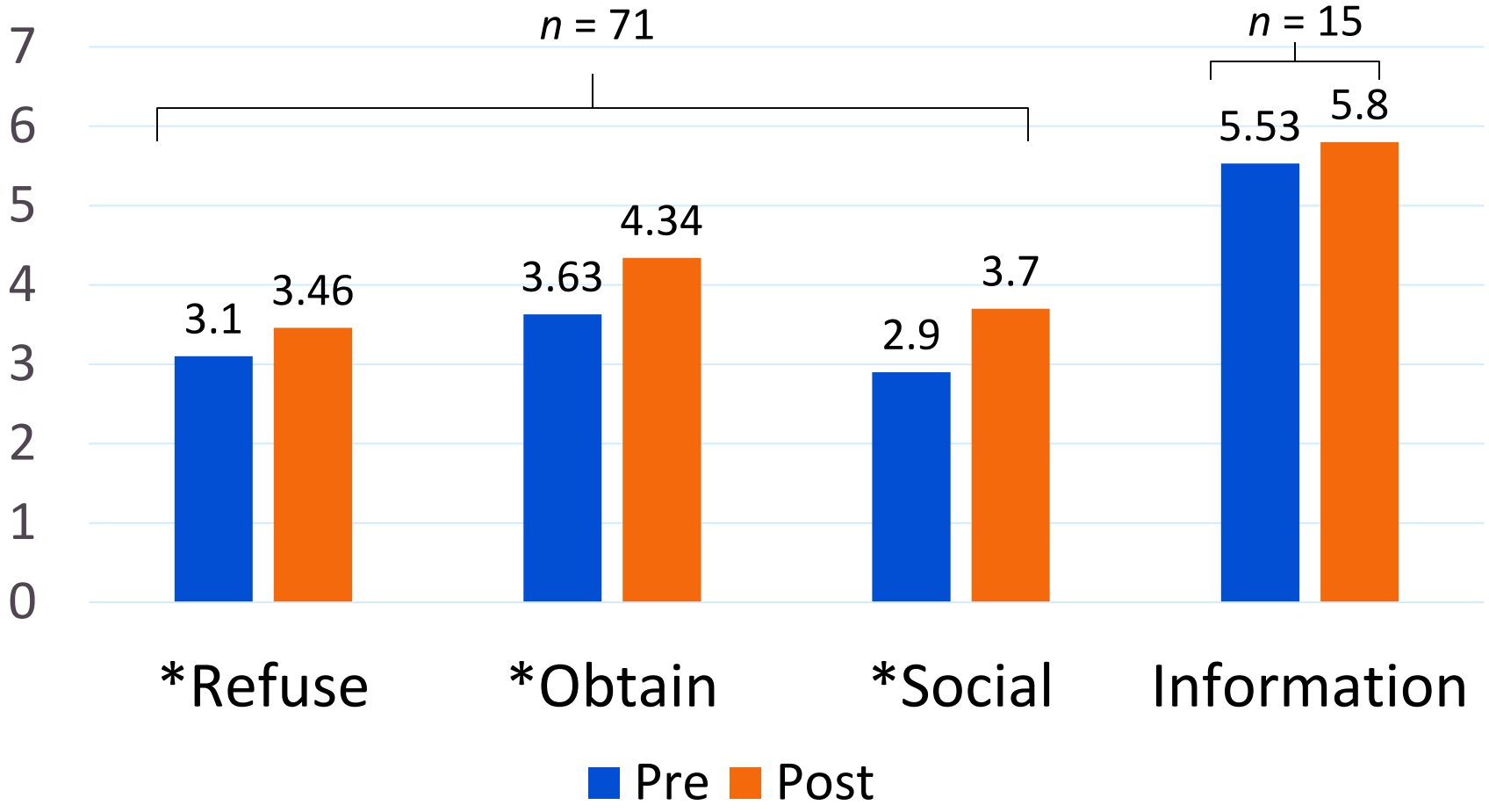



# Communication Matrix

- Communication Ability Levels (1-7)
- 4 basic reasons for communicating
  - Refusing
  - Obtaining
  - Social connection
  - Providing or seeking information

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

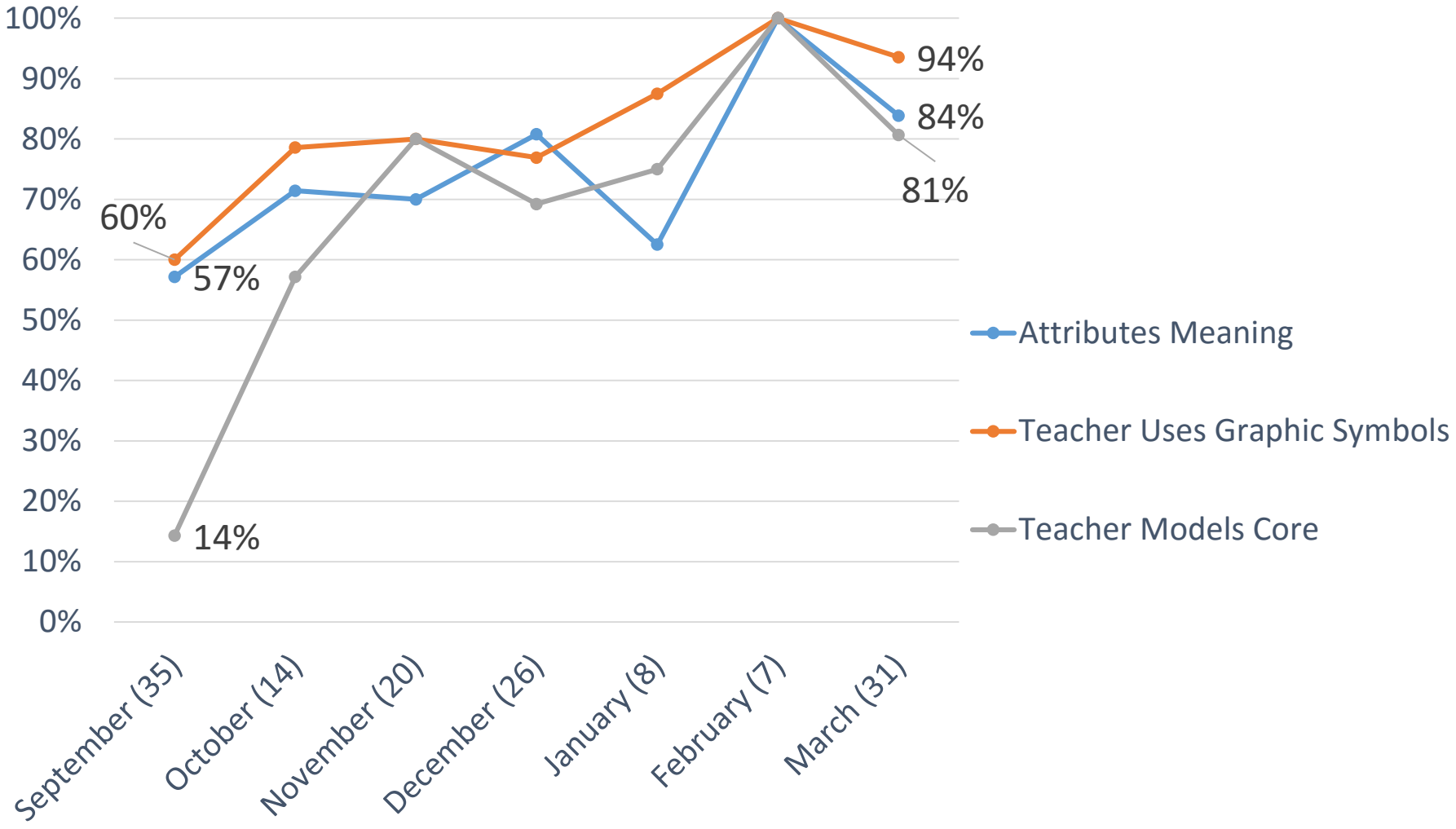
# Change in Average Ability Level



# Number of Students At Each Level

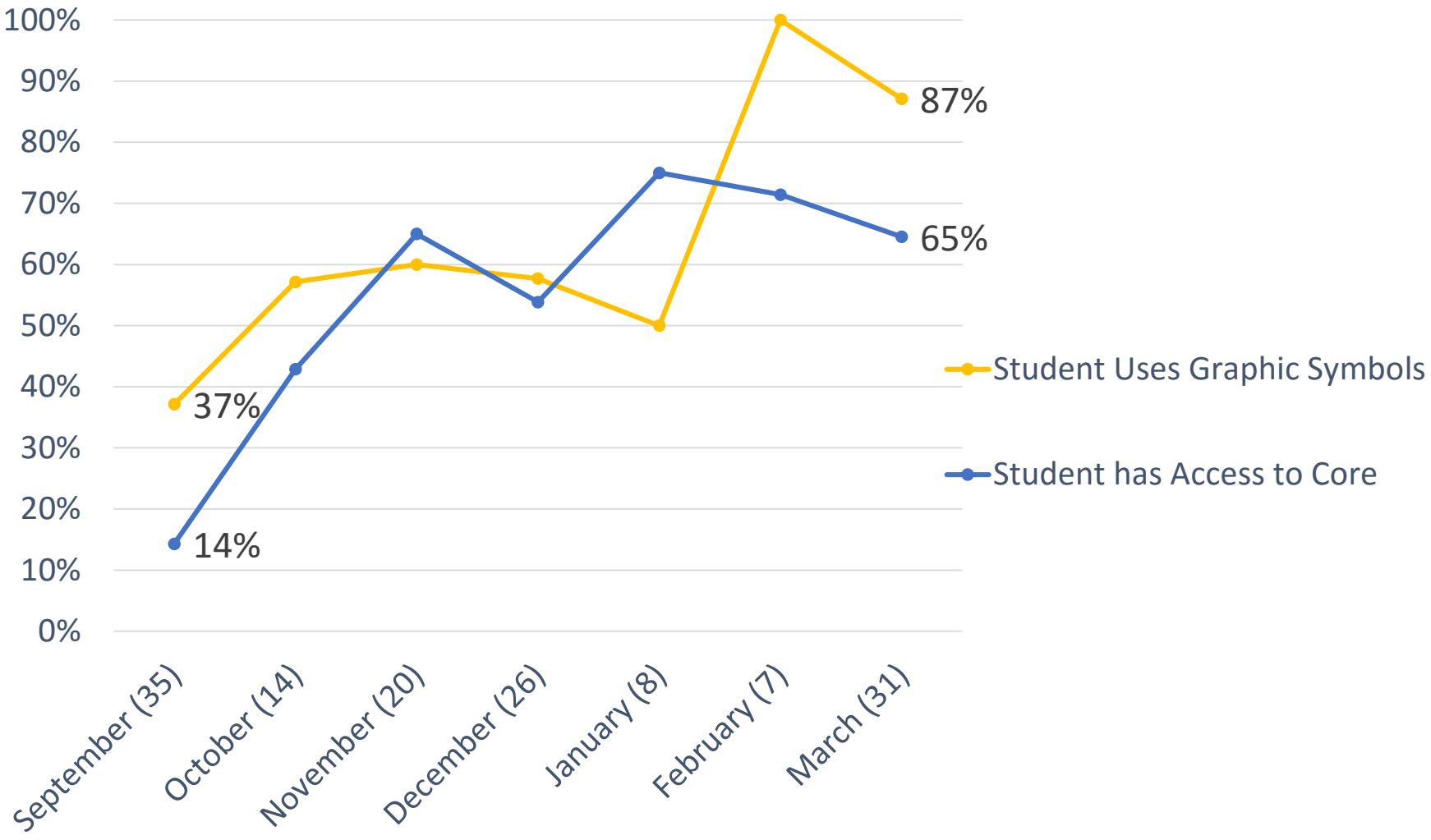
| | Refuse | | Obtain | | Social | | Information | |
|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| NS | 5 | 1 | 1 | 0 | 8 | 0 | | |
| 1 | 2 | 3 | 5 | 1 | 4 | 0 | | |
| 2 | 5 | 2 | 13 | 6 | 9 | 6 | | |
| 3 | 43 | 43 | 23 | 26 | 28 | 28 | | |
| 4 | 7 | 10 | 6 | 4 | 16 | 26 | 0 | 0 |
| 5 | 3 | 3 | 7 | 13 | 0 | 3 | 10 | 17 |
| 6 | 6 | 8 | 13 | 11 | 6 | 8 | 14 | 13 |
| 7 | 0 | 1 | 3 | 10 | 0 | 0 | 0 | 3 |
| Total | 71 | 71 | 71 | 71 | 71 | 71 | 24 | 33 |

# Classroom Observations: Teacher Behaviors



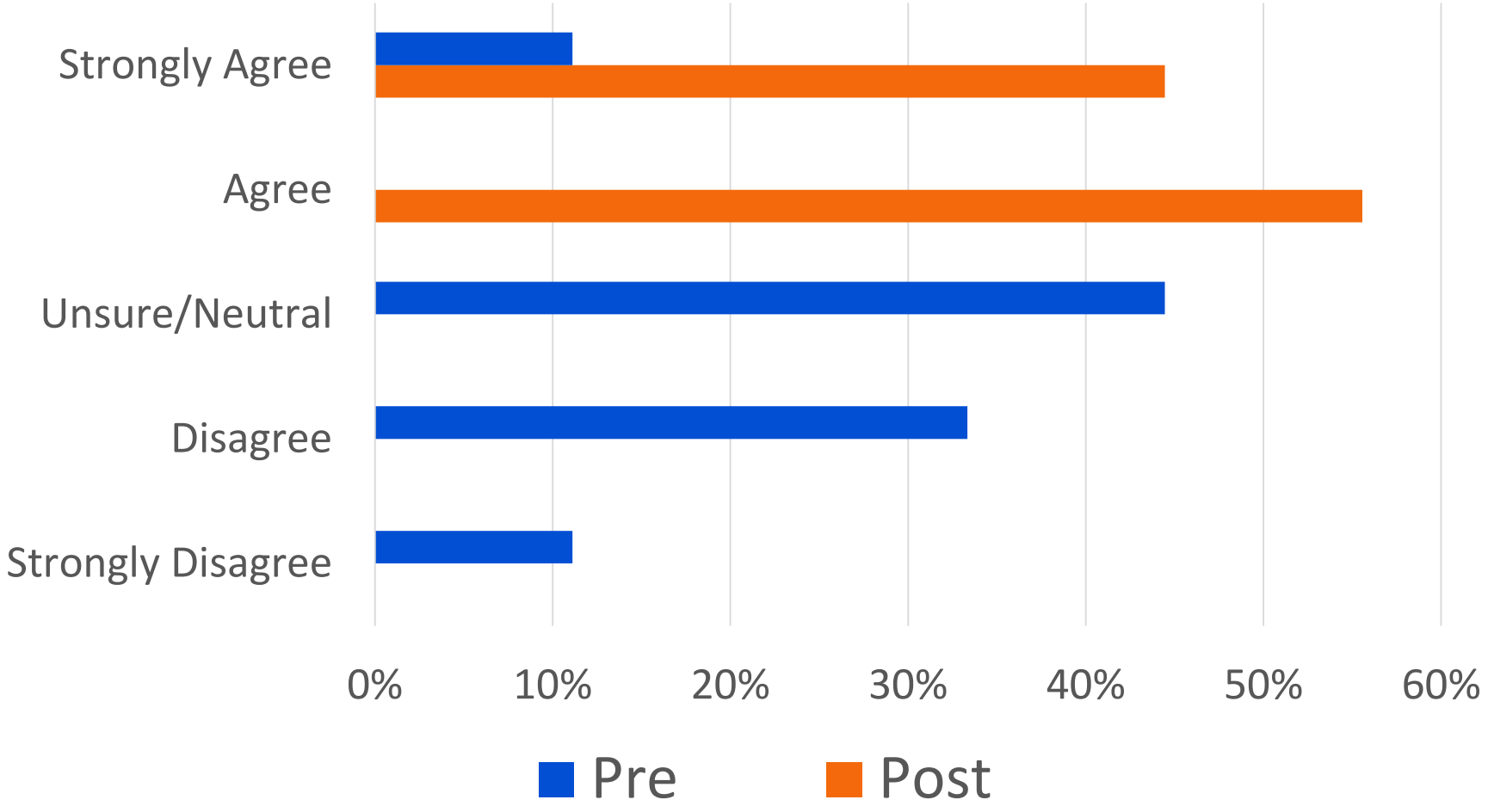

* Number in parentheses is the total number of observations

# Classroom Observations: Student Access and Use

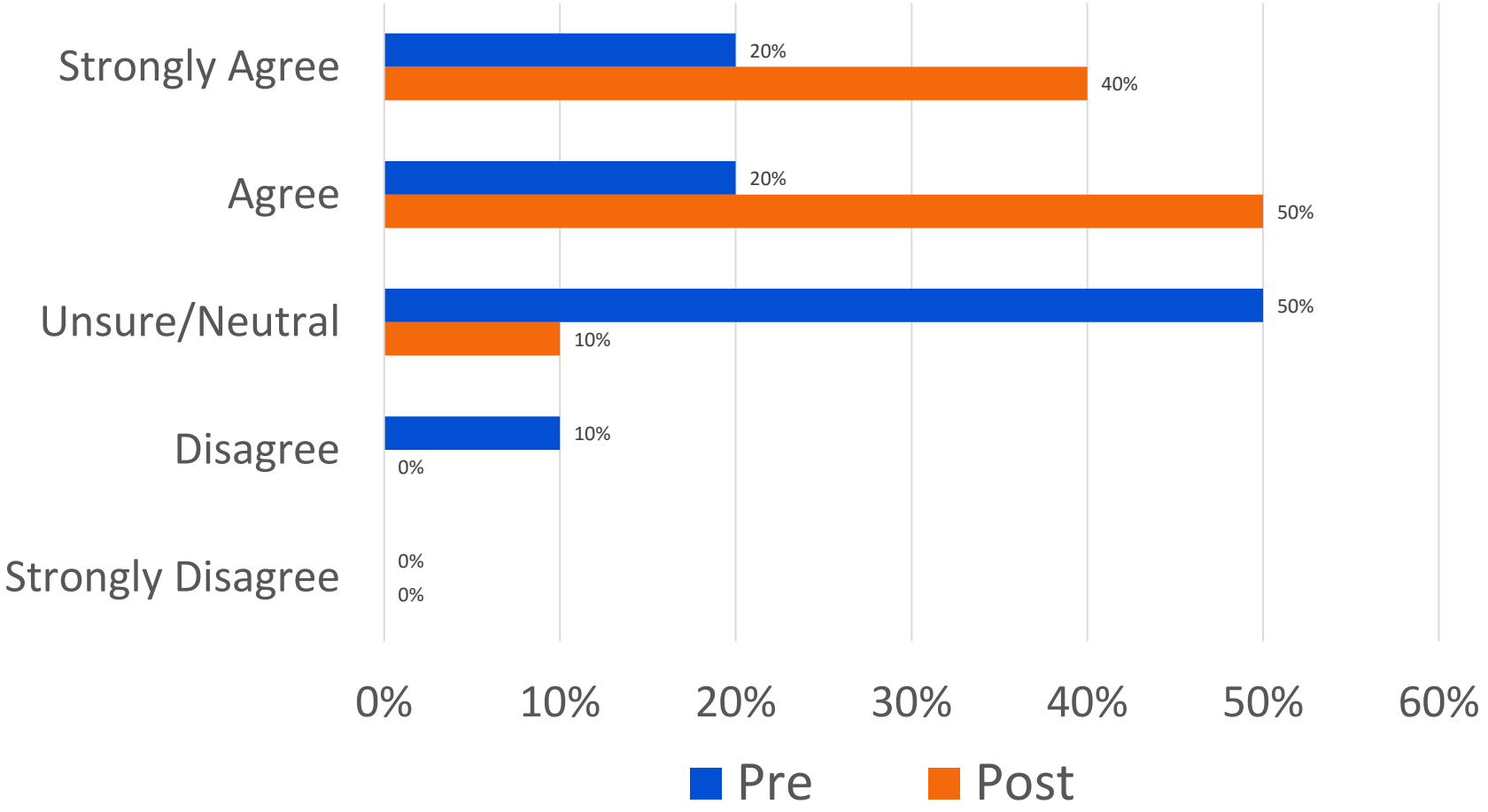



* Number in parentheses is the total number of observations

# Teachers' self-assessment: I understand how to use a core vocabulary approach with my students who need AAC. (*n* = 9)



# Teachers' self-assessment: I feel comfortable and confident in my ability to use AAC with my students. (*n* = 10)



# Development & Dissemination Plan

1. Refine mSAL implementation model (years 2-4)

2. Scale up to 10 Dissemination Schools (year 5)

3. Build a community of practice and distribute all resources through www.project-core.com

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# www.project-core.com

- Universal Core vocabulary formats
- 3D symbol files
- Selection tool
- 14 Professional Development Modules
- Instructional Planning Guides & Checklists
- Conference Presentations
- Project Overview

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill

# Research Team

## The Center for Literacy and Disability Studies


University of North Carolina at Chapel Hill
321 South Columbia St, Suite 1100
Chapel Hill, NC, 27599-7335
Center Website: http://www.med.unc.edu/ahs/clds
Project Website: www.project-core.com

Karen Erickson, PhD, Principal Investigator
karen_erickson@med.unc.edu

Lori Geist, PhD, Project Director
lageist@unc.edu

Claire Greer, PhD
claire_greer@med.unc.edu

Penny Hatch, PhD
phatch@med.unc.edu

Lisa Erwin-Davidson, MS
lisa_ed@med.unc.edu

Kathryn Dorney, MA
kathryn_dorney@med.unc.edu

©2017 Center for Literacy and Disability Studies, UNC at Chapel Hill