

# UTILIZING FINGERSPELLING TO TEACH READING

Currently, teachers of deaf and hard of hearing students range considerably in their use of fingerspelling with their students. In general, many teachers are underutilizing fingerspelling as a tool to enhance reading skills. Our data shows that fingerspelling can be used in reading, much like phonological awareness is used with hearing children. Research clearly shows that hearing children need to learn to break words down into individual sounds and learn to connect speech sounds to graphemes. Our approach is somewhat similar in that we use fingerspelling to help a child develop an understanding of a printed word as both individual letters and patterns. For example, the words “make” and “take” can be divided into segments with a unique first letter and a common rime “ake.” We call these the sublexical units of the word.

## RESEARCH

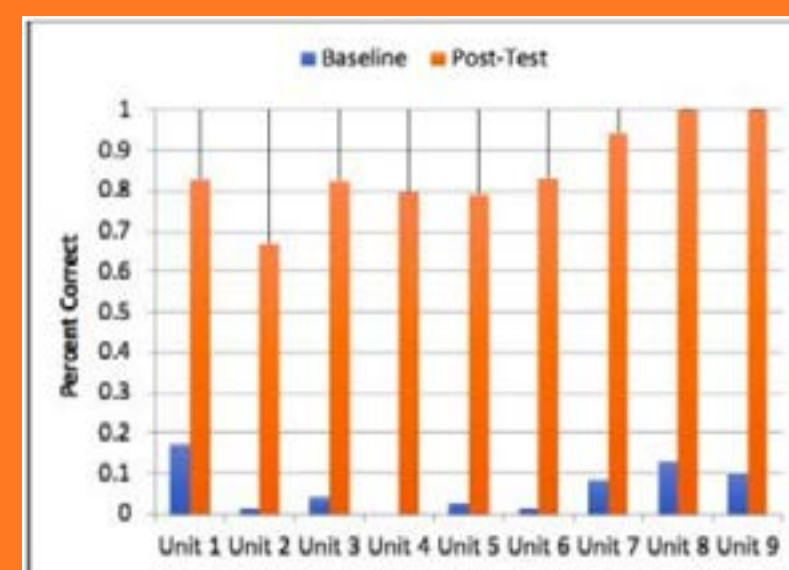
Our program is designed using evidence-based research. In our initial study, the CLAD team gathered comprehensive language and literacy data on 290 deaf and hard of hearing children from schools around the United States and from a variety of classes, including:

- Local schools
- Charter schools
- Residential or day schools for the deaf
- Private schools.

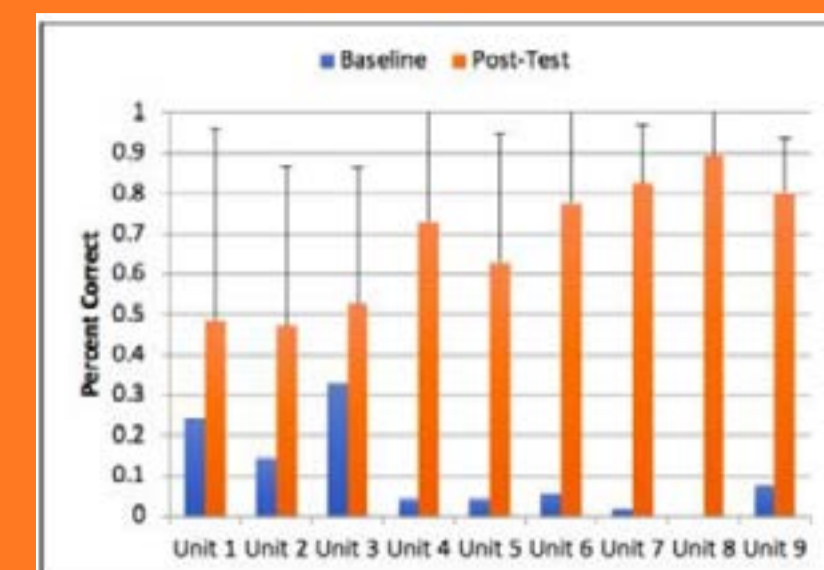
# RESULTS FROM A FOCUSED STUDY

In 2014-2015, research teachers taught our fingerspelling program in two schools: Rocky Mountain Deaf School and the Atlanta Area School for the Deaf. There were 14 students in kindergarten to second grade involved in the study. The teachers used an iterative design approach. They provided feedback, and the team made modifications throughout the year to further develop the program. The data from this fingerspelling study clearly indicated that there was a significant difference between the pre- and post-assessments for both Fingerspelling Production and Print Recognition.

We separated student outcomes into two groups using results from the Woodcock Johnson Letter Word ID subtest: Group 1: Good Readers – Students with a standard score of 85 or above, considered typically developing; and Group 2: Struggling Readers – Students with a standard score below 85, considered as below average. The data were exciting for both groups! Good Readers did well at learning to fingerspell and identify the printed target words almost immediately. Although the Struggling Readers started out by struggling to learn the patterns, they were learning as well as the students in the Good Readers group in later units.



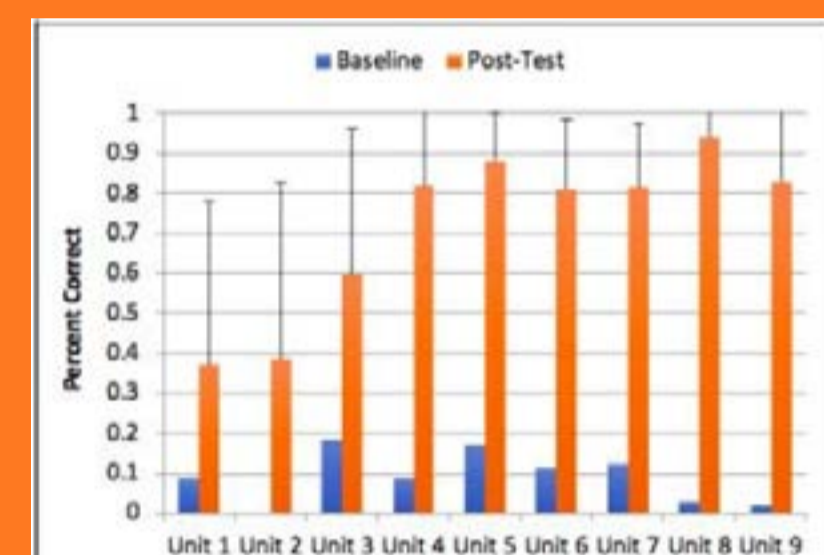
Fingerspelling  
**GOOD READERS**



Fingerspelling  
**STRUGGLING READERS**



Print Recognition  
**GOOD READERS**



Print Recognition  
**STRUGGLING READERS**



Research has shown that there is a strong relationship between fingerspelling and recognition of printed English words (Schick, Lederberg, & Webb, 2014).



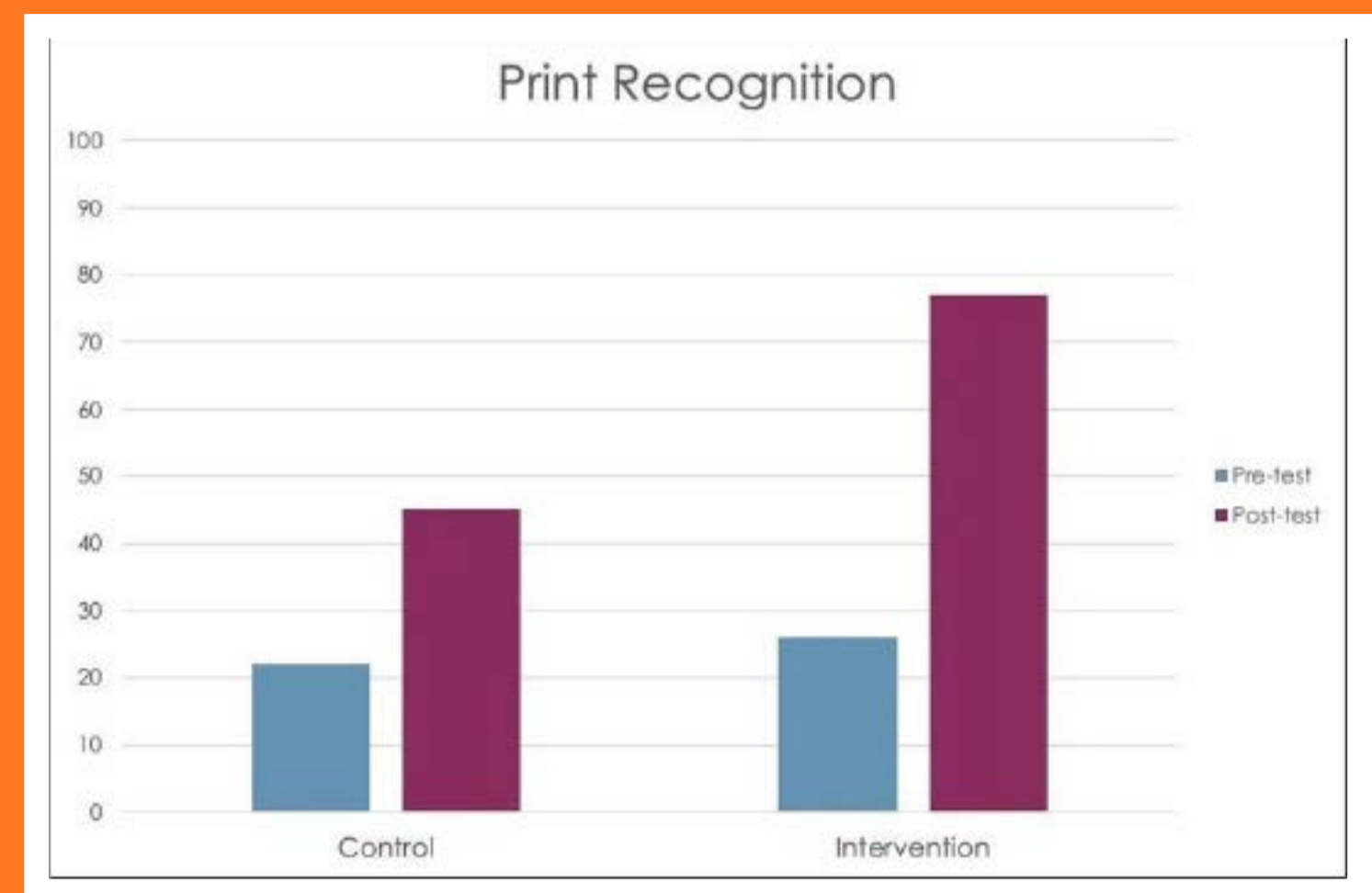
Our research findings show that fingerspelling is highly related to literacy for deaf and hard of hearing children.

# FINGERSPELLING: THE BRIDGE TO READING COMPREHENSION

Based on the positive results of this small study, we implemented a randomized controlled trial to further investigate the effectiveness of the program. The study included 17 schools and programs and more than 45 teachers. We provided initial training and ongoing mentoring throughout the year. The results of the study showed that a curriculum designed to develop fingerspelling phonological awareness skills results in better fingerspelling and better print recognition. Results also showed that struggling readers demonstrated more improvement through the year.

During the 2017-2018 school year, we included a reading comprehension component for all classrooms that were part of the initial study—both in the control and intervention groups. The reading component is designed to complement the fingerspelling program and to provide additional reading opportunities using the target words. The reading component provides a pathway for understanding connected English text through repeated opportunities to read the target words in meaningful sentences and original stories.

**There is evidence that fingerspelling may provide a pathway to decoding words and strengthening print recognition by building phonological awareness and providing a one-to-one direct relationship between fingerspelled words and printed English words.**



Intervention Group recognized 77% of target print words

**Thank You to All Participating Schools** We extend our gratitude to all the schools and programs that participated in the randomized control trial of the Fingerspelling Our Way to Reading program during the 2016-2017 school year and the continuation of the study during the 2017-2018 school year that included the fingerspelling program and the reading comprehension program.