

Examining Effectiveness of Interdisciplinary Collaborative Approach on At-Risk First Graders' on Phonological Awareness Skills



Shameka Johnson, Ph.D., CCC-SLP
Howard University, Washington DC

Priti Haria, Ph.D. Richard Stockton University Galloway, NJ.

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Background

- The American Speech-Hearing-Language Association (ASHA) and Council of Exceptional Children (CEC), encourages teachers and Speech-Language Pathologists (SLPs) to collaborate during planning and service delivery phases to provide comprehensive and rich experiences to students with literacy or communication difficulties.
- Research demonstrates that when strategic training programs are combined with collaborative approaches among teachers and speech-language pathologists, the overall results can benefit both professionals and school-age children (Friend & Cook, 2007).

Background

- Collaborative approaches have positive impacts on increasing the professional's self-confidence, content and pedagogical knowledge (Jenkins & Sheehey, 2009).
- The implementation of collaborative approaches utilizing technology based instruction (TBI) targeting phonological awareness (PA) skills can contribute to successful reading abilities in school-age children (Engen & Høien, 2002).

Purpose

- ***Interdisciplinary Collaborative Approach: Phonological Awareness and Reading Skill Intervention (IDCO-PARSI)*** training program is two-fold:
 - to enhance pedagogical knowledge and skills of the general education teachers and Communication Disorders student clinicians entering the workforce;
 - to increase Phonological Awareness (PA) and reading skills in school-age children at-risk or with reading delays

Participants

- **Primary Participants**

- **Three** Communication Disorders (CD) student clinicians
 - enrolled in CSD program
 - Age ranged from 22 to 32 years
- **Three** Elementary School Teachers from a Charter School
 - Experience ranged from 2 to 20 years
 - Age ranged from 35 to 45 years
- They were randomly paired to form **three** dyads

- **Secondary Participants**

- **Six** first-graders with reading difficulties
- Age ranged from 6.5 to 7 years
- Students struggled with phonological tasks and fluency

Implementation Procedures

IDCO-PARSI Training Consisted of two Phases:

- **Phase I: Primary participants completed the following training modules across two months:**
 - **Module I:** Intro to interdisciplinary collaborations;
 - **Module II:** Collaboration within classroom;
 - **Module III:** Targeting and unpacking common core state standards (CCSS);
 - **Module IV:** Overview of PA and reading skills;

Implementation Procedures

- **Phase II: Implementation of IDCO-PARSI in School:**
 - After identifying at-risk children, the SLPs administered pre- and post- Profile of Phonological Awareness (ProPA) test
 - CD student clinicians provided 20 minutes hands-on & I-pad articulation and phonological awareness intervention
 - The classroom teachers systematically and strategically integrated the targeted skills for at-risk student during their language arts period for 25 minutes specifically.
 - After every fourth 45 minute intervention session, the child completed an interim ProPA test.
 - Overall, this phase ran for six-eight weeks completing 16 intervention sessions, 4 test to skill sessions (interim test) and 24 classroom integration intervention sessions.

Measures

- Pre-test Knowledge Assessment

- Module Knowledge Assessments

- Post-test Knowledge Assessment

IDCO-PARSI Pre Module Knowledge Test

Initials: LB
Date: 2/15/14

1. What is Co-teaching?

- a) Two or more professionals deliver instruction to a diverse group of students
- b) One person teaching one topic followed by another teaching a different topic
- c) One teacher teaching regardless of what is taught and how it will be taught

2. Teaming requires...

- a) Both teachers to be responsible for planning and sharing the instruction
- b) One teacher to be more engaged than the other
- c) One teacher is in charge of instruction and the other management
- d) All of the above

Phase I: Modules I & II

- Defining and Discussing Characteristics of ID collaboration
- Explored advantages & disadvantages of ID collaboration
- Conducted Break-out Sessions:
 - **Break-Out Session I:** Here dyads worked together and answered 12 questions related to Sharing Hopes, Attitudes, Responsibilities, and Expectations (i.e., S.H.A.R.E.)
 - **Break-Out Session II:** Here dyads worked on stages of collaboration (i.e. beginning, compromise, and collaborate). Each dyad worked on individual student's needs summary
 - Dyad collaborated and joined in **professional marriage**



Phase I: Module III & IV

- Addressed PA and Reading Skills
- Aligned PA and Reading Skills with Common Core State Standards (CCSS)
- Extensive training in administering Profile of Phonological Assessment (**ProPA**) Ipad-based assessment and recognizing reading levels
- **Break-Out Sessions:**
 - Practiced test on their dyad partners
 - Practiced Steps 1 to 8 of IDCO-PARSI approach.
 - Dyads completed simulated case-study

IDCO-PARSI APPROACH

- **Step 1:** Dyad identifies at-risk students
- **Step 2:** SLP assesses student and writes up goals
- **Step 3:** Teacher creates lesson plan based on goals
- **Step 4:** SLP provides 20 minutes intervention using apps
- **Step 5:** SLP documents progress on the data form
- **Step 6:** Teacher implements 25 minutes within-class intervention
- **Step 7:** Teacher documents progress on the same data form as SLP .
- **Step 8:** Next day, SLP reviews teacher data, before beginning the intervention and continue the cycle.

NOTE: Teacher- SLP collaborates from step 2 onwards

Results: Pre- & Post- Knowledge Assessment

- **Pre-test: 83%** of the participants demonstrated prior knowledge of collaboration
- **Posttest: 100%** of the participants demonstrated knowledge of collaboration after IDCO-PARSI training.

Results: Pre- & Post- Knowledge Assessment

- **Mean for Pre- to –Post:**
 - **67%** of the participants maintained or demonstrated an increase in pedagogical knowledge as evidenced on the post module training test.
 - **33%** of the participants demonstrated significant decrease in pedagogical knowledge specifically in the area of implementing common core standards* as evidenced on the post module training test.
 - * *possible impact secondary to discipline/use*

Results: Experiences & Perspectives

- **Pre-Test: What do you expect to get out of this training?**

- *I expect to learn in-depth information about PA and how it relates to reading skills. I want to also learn how to transfer speech therapy skills effectively to the classroom*

- **Post-test: Discuss your experience/ perspective of this training program,**

- *I have learned more information related to what I am doing in the classroom. I can more readily identify those [students] having difficulties and where they fall in the spectrum of readers. I concentrated more on the skills that are lacking in specific [at-risk students].*

Results: Pedagogical Knowledge & Skill

- **Pre-test: What do you expect out of this training?**
 - *I like to learn what to do to assist struggling reader. I would like to be able to have many different approaches to engage the students in their learning process.*

- **Posttest: Discuss your experience/ perspective of this training program,**
 - *The most significant thing I have learned in this program is how many things must happen in child's brain before they become a fluent reader. It is easy to forget that how many skills are necessary before child can read. Now, I break down words more and review sounds with my at-risk more often.*

Results: Collaboration

- **Pretest: What do you expect out of this training?**

- I expect to learn valuable knowledge in co-teaching and collaborating with teachers. I would like to learn about teacher objectives in the classroom and how they may differentiate or be similar to SLP objectives

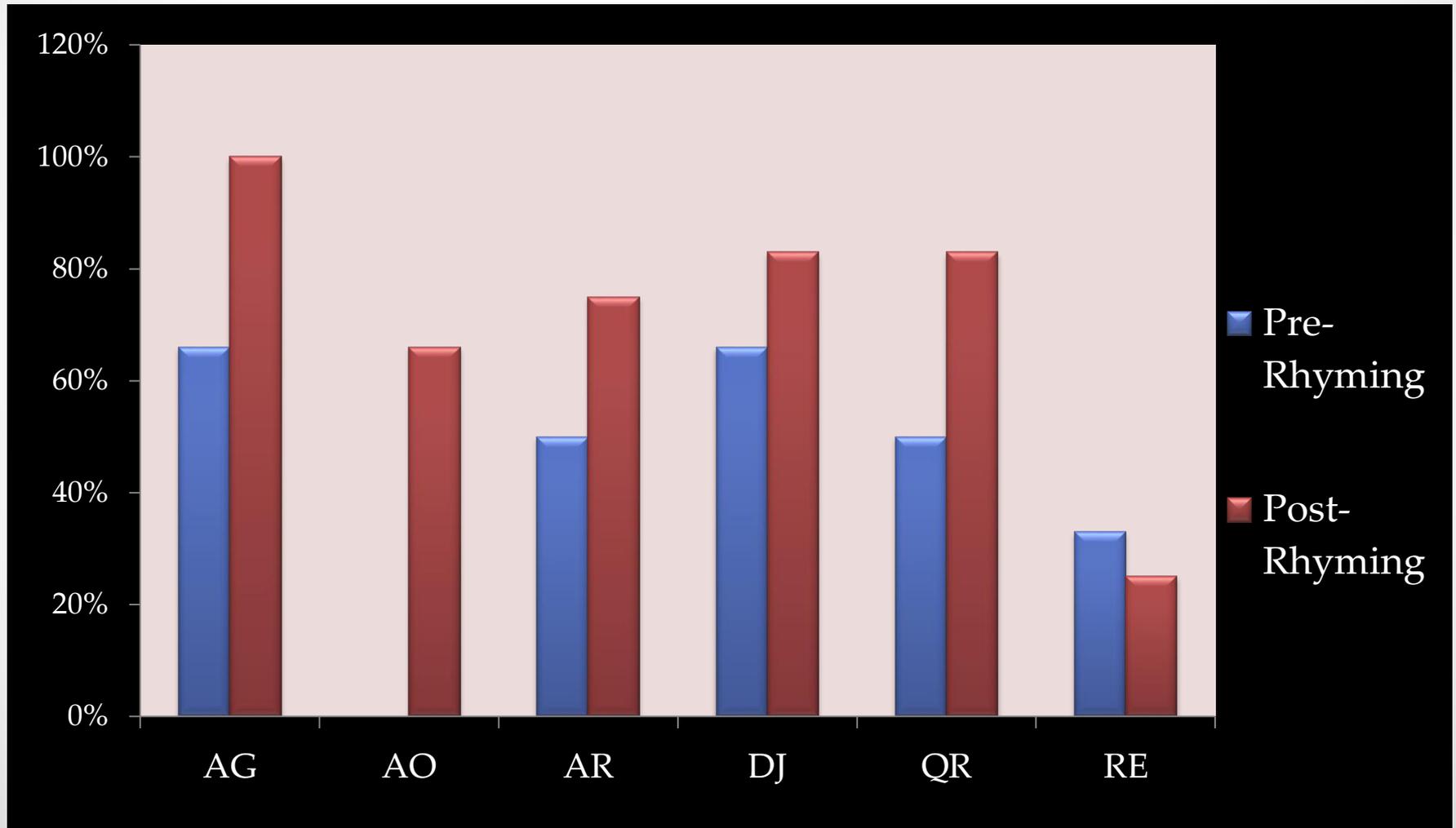
- **Posttest: *Discuss your experience/ perspective of this training program,***

- I have become more familiar with the differences between teachers and SLPs approaches to literacy and why there is sometime disconnect and need for professional intervention.

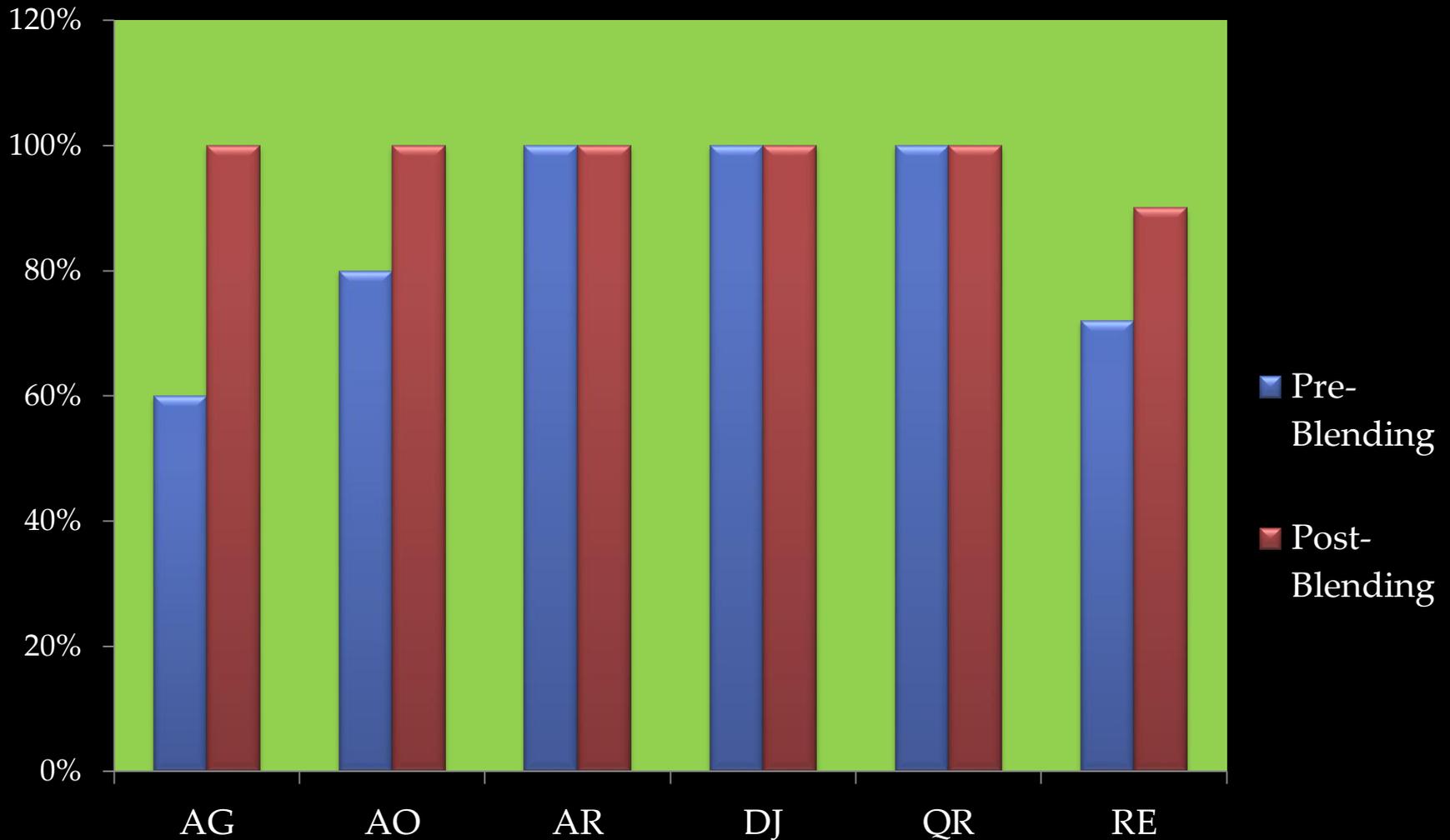
Conclusion

- IDCO-PARSI provided professionals with a platform to collaborate at all levels, planning, implementation, assessment
- Overall, the training increased the culture of collaboration amongst the teachers and SLPs
- The training increased pedagogical knowledge and skill for all participants, specifically in the areas of PA & reading skills, and reading intervention
- As a result, increase in knowledge and skill and the collaboration between teachers and SLPs positively and significantly impacted students' phonological awareness skills.

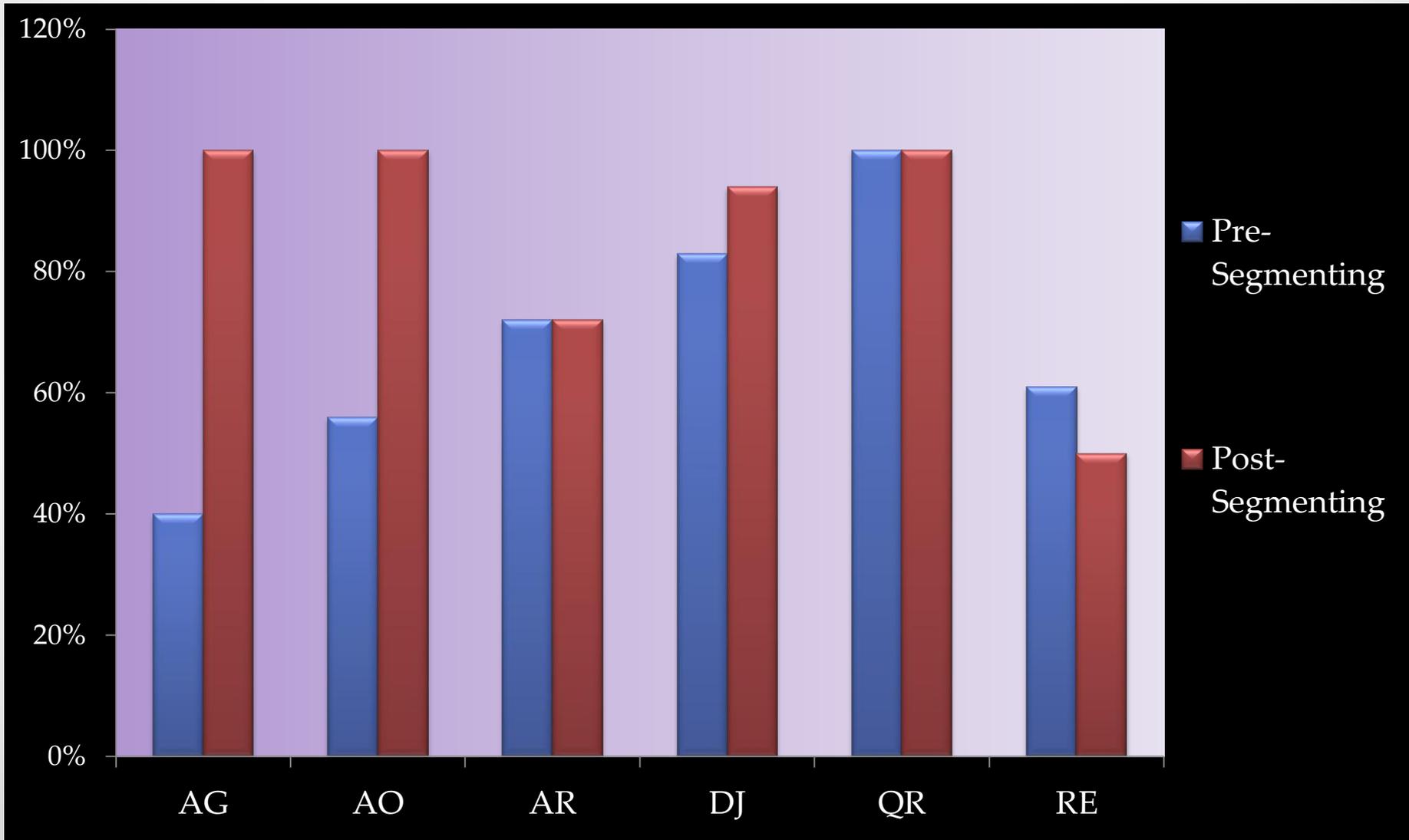
Pre- & Post- Rhyming Subtest



Pre- & Post- Blending Subtest



Pre- & Post- Segmenting Subtest



Limitations

- Schedule and practice time constraints
- Intervention time was cut short due to snow days, spring break and end of the year situation
- Conflicting schedules amongst participants and investigators affecting debriefing opportunities

Future Goals

- Conduct study at a larger scale
- Provide more time for planning and implementation of intervention



Contact Information

- Shameka Johnson, Ph.D., CCC-SLP
Howard University, Washington DC, USA
Email: sjohnsonslp@gmail.com
- Priti Haria, Ph.D.
The Richard Stockton College of New Jersey,
Galloway, NJ, USA.
Email: priti.haria@stockton.edu