

### ***Introduction***

Childhood apraxia of speech (CAS) has traditionally been viewed as a disruption in the programming and

participants, (2) a combined speech-sound and language disorders group (SL) with 14 participants, and (3) a childhood apraxia of speech group (CAS), with 10 participants. All participants were recruited during preschool (ages 4-6), and were followed-up on from ages 8-10. The following statistical analysis were used to interpret the findings: Chi square tests and ANOVAs were used to examine group differences in age, gender, and socioeconomic status; ANOVA tests were used to compare groups across the domains of speech sound development, language, and oral motor skills during the preschool years, and the domains of speech sound development, language, oral motor skills, reading, and



was used to analyze the participants' change in performance from pre- to post-test on untrained speech and phonological awareness probes. Untrained speech results revealed that 3 participants had strong effect sizes ( $d = \text{greater than } 0.80$ ) for both speech error patterns, and a further three participants showed strong

displayed persistent expressive morpho-syntactic deficits.

Generally, this study suggests positive speech, phonological awareness, and early literacy gains from participation in an integrated phonological awareness intervention program at preschool age, and provides