



Marchant, McAuliffe, and Huckabee (2008) used a single-subject design to assess the effectiveness of phonetic placement therapy (PPT) and sEMG-facilitated biofeedback relaxation treatment on improving intelligibility in single words and continuous speech in a child (13 yrs) with spastic hemiplegic cerebral palsy and spastic dysarthria. The child received two weeks of PPT, two weeks of treatment withdrawal, then two weeks of relaxation therapy. PPT targeted individual speech sounds and sEMG relaxation therapy targeted relaxation of facial muscles. Speech samples were collected and analyzed pretreatment (3 times) and immediately following each treatment type using standardized tests and reading passages commonly employed in this research area. Visual inspection of percent intelligibility measures in single words revealed an increase in intelligibility immediately following PPT as compared to baseline, and immediately following sEMG as compared to baseline. There was no change in intelligibility post-sEMG when compared to post-PPT.

This paper provided a clear description of the execution of the study, including the assessment protocol and the intervention procedure, allowing for accurate study replication. Blinding was achieved by randomly presenting the child's speech samples to two Speech-Language Pathol

significant results was a major drawback to this article and limits the article's clinical value. Also, the increases in intelligibility were found by comparing the average

### *Discussion*

Review of the literature suggests that speech intervention can be effective in improving speech intelligibility in children with cerebral palsy and dysarthria.

While most of these studies exhibited statistically significant changes in intelligibility following intervention, the functionality of these observed improvements should be considered, as the articles did not address the clinical significance of the improvements (Marchant et al., 2008; Pennington et al., 2009; Pennington et al., 2013; Puyuelo & Rondal, 2005). Therefore, it is unclear whether there was enough improvement in intelligibility to impact the children's ability to communicate with spoken language. Also, most of the increases in intelligibility were noted to be at the single-word level, while outcome measures in connected speech did not show significant improvement as often (Marchant et al., 2008; Pennington et al., 2009; Pennington et al., 2006). Imp

cerebral palsy.