

that when providing direct PA intervention for reading development with this population, it is not being done

content of the PA intervention in which the last two sessions incorporated production practice. The authors, however, stated that the children were not corrected on their production of sounds. It was also unclear who implemented the therapy and administered the pre/post testing. The level of blinding is therefore uncertain. The administrators of the pre and post tests may have been aware of group assignments and experimenter bias may have affected the scores. The results must also be interpreted with caution as there is a small sample size and the effect size and power calculations were not included. Due to these weaknesses, the positive outcomes from Adams et al.

addressed the fact that the test scores had large standard deviations, indicating considerable variation in the participants' performance. The authors indicated that this variation may be due to the heterogeneity of the population sampled or the fact that some children respond more rapidly to therapy than others. Considering both the strengths and weaknesses of this study, the findings need to be considered tentatively and further research is required.

Recommendations

The effect of PA intervention on the speech output of children with expressive PD has not been well-documented at this time. Some studies have shown the effects of PA intervention on enhancing the PA skills of children with expressive phonological disorders (Adams et al., 2000; Denne et al., 2005; Gillon, 2000). The above results section, on the other hand, summarizes the current research regarding the effect of PA intervention on the phonological output of children

phonological awareness. *Seminars in Speech and Language*, 22, (1), 27-42.

Sutherland, D. & Gillon, G. (2005). Assessment of phonological representations in children with