Using Tactile Biofeedback, In the Form of Speech Buddies, For Treatment of Therap Resistant Students Who Misarticulate /r/.

Abstract
Up to 7.5% of school-age children in the United States are affected by speech sound disorders with approximately 28% of these making no measurable progress in traditional treatment. For these children, alternative approaches are often needed. The current study tests a relatively novel approach to speech biofeedback using the Speech Buddies model.

Method
Participants
Participants included two treatment-resistant children, aged 9:5 and 10:11 respectively. Each received twice weekly services of thirty-minute, individual therapy sessions, from the same language pathologist with over twelve years of experience. The probes were administered at baseline and at the end of the study to assess participants’ progress.

Results
Table 1. Summary of Results for Participant R.J.

Table 2. Summary of Results for Participant S.L.

Discussion
Given that R.J. and S.L. were both older than age 9, their errors were at risk for becoming residual speech sound errors. Both participants in this study were older than age 9, generally the age at which persistent errors may become classed as “residual” errors. Preston and Edwards (2007) noted that such errors often coexist with incomplete phonological representations of the target speech sounds in these preadolescent and adolescents.

Given that R.J. and S.L. were both older than age 9, their errors were at risk for becoming residual errors. Also, prior to enrolling in this study, both participants had received at least one full year of speech therapy. Even with continuing therapy, progress during this one year of continued speech therapy did not result in progress. For these reasons, an alternative treatment approach was indicated.

Therapy Plan
Participants received twice weekly services of thirty-minute, individual therapy sessions, from the author, a licensed and ASHA-certified speech-language pathologist with over twelve years of clinical experience. The Speech Buddies® model was selected for this intervention because it was shown to be effective in previous studies. Speech Buddies were selected due to their comparatively low cost and easy to implement.

The Speech Buddy was used as the primary cueing mechanism for therapy sessions. These cues were supported by visual cues, particularly with regard to training the correct, rounded and slightly protruded lip configuration necessary for correct /r/, particularly consonantal and pre-vocalic /r/.

The study clinician was initially drawn to investigating the clinical effectiveness of Speech Buddies based on current research. As a result, the study clinicians and language pathologists involved in this study decided to measure participants’ progress using the GFTA-3.

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The study clinician was initially drawn to investigating the clinical effectiveness of Speech Buddies as a viable treatment approach for children in their later school-age years. To date, little research has been conducted on the effects of Speech Buddies on speech sound errors in the school-age population. The authors chose to investigate the clinical effectiveness of this treatment approach with school-age children who have long-standing speech sound errors.

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