

The effectiveness of sound gestures in early literacy instruction for students with intellectual disabilities: A single case study

Freitag, 12. September 2025 17:25 (20 Minuten)

Abstract: Sound gestures are hand movements that represent individual phonemes and are primarily oriented towards sound production, such as mouth position, tongue movement or place of articulation. They are used in early literacy instruction, particularly to support the development of phonemic awareness and grapheme-phoneme correspondence in students with hearing impairments or those at risk for reading difficulties (Kart, 2022; Tucci et al., 2014). Although sound gestures are also recommended and widely used in early literacy instruction for German-speaking students with intellectual disabilities—based largely on positive teacher experiences (Tebbe, 2023)—empirical research on their effectiveness for this group of students remains limited. To address this gap, an adapted alternating treatments design was employed to investigate whether direct instruction with sound gestures is more effective than direct instruction without them among eight students with intellectual disabilities. The dependent variables were phonemic awareness and grapheme-phoneme correspondence. Multilevel modeling was used to estimate the extent to which the two interventions differ in their effectiveness. The results indicate that both interventions were effective, with the sound gesture condition producing slightly greater gains for most participants on each dependent variable.

Keywords: intellectual disability, sound gesture, phonics, adapted alternating treatments design

References

Kart, A. N. (2022). Systematic review of studies on visual phonics. *Communication Disorders Quarterly*, 43(4), 261-271. <https://doi.org/10.1177/15257401211024536>

Tebbe, M. (2023). Lautgebärden im Schriftspracherwerb: Beobachtungen und Einschätzungen von Lehrkräften zum Einsatz von Lautgebärden im sonderpädagogischen Schwerpunkt Geistige Entwicklung (SGE). *Sonderpädagogische Förderung heute*, 68(3), 306-320. <https://doi.org/10.3262/SZ2303306>

Tucci, S. L., Trussell, J. W., & Easterbrooks, S. R. (2014). A review of the evidence on strategies for teaching children who are DHH grapheme-phoneme correspondence. *Communication Disorders Quarterly*, 35(4), 191–203. <https://doi.org/10.1177/1525740114523776>

Hauptautoren: TEBBE, Marc (Bielefeld University); WILBERT, Jürgen; BARTH, Maximilian (University of Graz); Dr. ZURBRIGGEN, Carmen L. A. (University of Fribourg)

Vortragende: TEBBE, Marc (Bielefeld University); BARTH, Maximilian (University of Graz)

Sitzung Einordnung: Session 2