

Assessing the Quality of Single-Case Design Research With Deaf Individuals

RS
Research
Summarized

Summary of Wendel et al., "Alignment of Single-Case Design (SCD) Research With Individuals Who are Deaf or Hard of Hearing With the What Works Clearinghouse Standards for SCD Research"¹

Why was this work done?

- To determine the effectiveness of interventions for low-incidence populations, including deaf individuals, through single-case design (SCD) studies
- To assess the quality and rigor of SCD research with deaf individuals
- To examine the benefits and challenges of applying standardized research quality criteria from What Works Clearinghouse (WWC) to research with deaf individuals and other diverse populations

"SCD research is often well-suited for topics in deaf studies and deaf education, including language development, literacy, and communication."

How was this work done?

- Using quality criteria from the WWC standards for SCD research, 12 published research articles within deaf studies research were assessed and their experimental quality was evaluated.
- Based on the quality analysis, the studies fell into three categories: (a) meets WWC standards without reservations, (b) meets WWC standards with reservations, and (c) does not meet WWC standards.
- For studies that (a) met standards or (b) met standards with reservations, visual analysis was conducted to determine the strength of evidence demonstrated.

What did researchers find?

- Only 4 out of 12 studies met the standards for WWC design quality due to weaknesses in research methodology, experimental validity, and the stringency of overall design.
- Of the four studies that were assessed with visual analysis, two were determined to have moderate to strong evidence.
- The number of studies that met the WWC standards for design quality was insufficient to identify an evidence-based intervention, program, or practice for the deaf population.

What do these results mean?

- Researchers are called on to produce more rigorous study designs that are sensitive to unique characteristics of the deaf population in order to identify effective interventions and practices.

¹Wendel, E., Cawthon, S. W., Ge, J. J., & Beretvas, N. (2015). Alignment of single-case design (SCD) research with individuals who are Deaf or hard of hearing with the What Works Clearinghouse standards for SCD research. *Journal of Deaf Studies and Deaf Education*, 20(2), 103–114. doi:10.1093/deafed/enu049



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- Researchers and scholars in deaf studies and deaf education may need to discuss the applicability of WWC standards to SCD research across different contexts.
- The continued use and refinement of WWC standards, coupled with strong theoretical foundation, should lead to a stronger evidence base of interventions and practices within deaf studies.



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