

# How can methodologists make multilevel modeling more accessible for applied researchers who use single-case experimental designs?

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## **Briefly Explain Your Question (max. 100 words)**

Due to their flexibility and feasibility, single-case experimental designs (SCED) have become increasingly popular. The growing body of evidence from single-case studies (which are typically based on small samples) on similar topics raises the question of how to generalize and statistically analyze data from multiple SCED studies. This can be done by using multilevel modeling, but despite much methodological research, still only a minority applied researchers use these methods. We are currently developing a free and easy-to-use R-based software tool to make this approach more accessible.

## **Scientific field(s) of the author(s)**

Multilevel modeling for meta-analysis of single-case experimental designs

## **Relevance to conference theme (max. 50 words)**

Single-case experimental designs typically have small samples, but by combining them in a meta-analysis this and other constraints in the primary studies can be overcome. Multilevel modeling is a flexible method that can also account for other common issues in single-case designs, like autocorrelation and trends.

## **Keywords (max. 3)**

Multilevel modeling, single-case design, meta-analysis