

Research Summary

Van Herwegen, J., Masterman, T., Dockrell, J., Marshall, C., Gordon, R., & Thomas, M. S. (2026). Raising educational outcomes for students with special educational needs and disabilities: A systematic review and meta-analysis. *Review of Education*, 14(1).

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This article provides a review and meta-analysis of research on targeted interventions for students with disability. Targeted interventions are those that go beyond effective, evidence-based whole class instruction and are those that would be Tier 2 (small group) or Tier 3 (individual) interventions in multi-tiered systems of support. The review considered the populations included in the interventions, settings, program delivery and the quality of the studies. The meta-analysis considered effect sizes and the characteristics of students and contexts that might explain variations in effect sizes.

Studies were included if they reported on participants of school age with a confirmed diagnosis, or who had an individualised education plan, were placed in a dedicated program for students with disability and special education needs or were low performers in an academic area. Studies had to evaluate a targeted intervention that included specific instruction delivered in an educational context and report on academic outcomes (reading, writing, maths, science or general attainment). Studies had to be group designs that included a control or comparison group.

The authors provide both a narrative review of the 467 studies reported in 435 articles and a more complex meta-analysis of 349 studies. Only 6.31% of the outcomes were assessed as resulting from low-quality research. Overall, there was a positive effect on all educational outcomes, which the authors described as equivalent to 5 months of additional progress compared to those participants in the control condition. Overall, there were no differences across different disability groups or between primary and secondary settings. The authors also provide a finer and more detailed analysis which takes into account the number of study participants within each disability category and the number and domain of reported outcomes. Some of these results include:

- In reading, positive effects were reported for participants with reading difficulties/dyslexia, with groups with mixed diagnoses and with speech, language and communication difficulties.
- In maths, positive effects were reported for students with ADHD, maths difficulties and groups with mixed diagnoses.
- In writing, positive effects were reported for participants with dyslexia/reading difficulties, groups with mixed diagnoses and participants with social/emotional/mental health difficulties.
- There were no differences across educational settings for reading and writing, but there were more positive outcomes for maths in mainstream settings.
- Interventions in primary schools for maths had larger effects while secondary settings had larger effects for writing interventions. There were no differences for reading outcomes.
- There were no differences due to delivery methods (individual, group, classroom or multiple) for reading or maths, but method of delivery for writing provided equivocal results and the authors concluded that delivery method probably had little influence on outcomes.

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Although the overall results were positive, the authors note there was little or inconsistent evidence of improved outcomes for students with some disabilities including autism spectrum disorder and hearing and vision impairment. The authors note that their review accords with findings from other broad reviews on interventions for students with specific learning difficulties in reading and maths. There was no effect for intervention implementer, but intervention studies are likely to provide specific guidance to implementers such as manuals and feedback on implementation. The authors note the need for further research on delivery methods and implementers. Other areas for future research include longer-term follow up, details on implementation fidelity, and more reporting of individual student characteristics.

This review provides broad-brush evidence of the positive impact of Tier 2 and 3 interventions for students with disability and special education needs. The focus on diagnostic categories rather than assessed student need limits the value to practitioners, although the breakdown into groups with difficulties with reading, writing or maths is helpful. The authors note the need for investigation of how outcomes are affected by student needs rather than diagnostic labels.