

Recommendation (new):

3.9 Specialized instructional techniques should be considered to improve academic performance, including writing skills, reading comprehension and maths, in children and adolescents with developmental learning disorders.

Strength of recommendation: Conditional

Certainty of evidence: Very low

Justification

- Evidence was extracted from two meta-analyses: Ciullo et al., 2020 (42 studies; 24 RCTs and 18 other group comparative designs) (71); and Jitendra et al., 2018 (19 experimental and quasi-experimental studies) (72).
- There was a large effect favouring specialized instructional techniques for functioning in academic performance for writing skills ($d = 0.63$; 95% CI: 0.00 to 1.26) and medium effects favouring treatment for functioning in academic performance for reading comprehension ($d = 0.33$; 95% CI: 0.23 to 0.86) and mathematics ($d = 0.37$; 95% CI: 0.18 to 0.56).
- Quality of evidence was downgraded due to inclusion of non-randomized studies in meta-analyses.

Remarks

- Participants in the primary studies included in the meta-analyses had a range of developmental learning disorders including impairment in reading, impairment in written expression and impairment in mathematics.
- Participants in the included studies were children and adolescents who were attending primary or secondary schools (i.e. 5- to 18-year-olds).

- In the studies included in the meta-analyses, specialized instruction included many supplemental instructional techniques including increased material structure and visual models, alternative or digital texts, peer-assisted learning strategies and other additional/supplemental materials.

Research gaps

- Limited evidence was available from LMICs.
- Evidence focused only on school settings and not on adolescents in occupational settings. Further research is needed on adolescents not in education.

Implementation considerations

- Intervention sessions occurred in non-specialist school settings. Research supports delivery of specialized instruction in school settings by specialists (special education teachers/researchers) and possibly non-specialists (teacher assistants) under the supervision of specialists.
- Instructional techniques can be used to modify the existing curriculum or provide an alternative curriculum where appropriate.
- These approaches should be implemented in the context of broader strategies focused on promoting inclusive and enabling environments for all, including children and young people with developmental learning disorders.