# Supplemental material

Table S1

Methodological components

| Author | Design | Sample size | Probabilistic sampling | Grade | Age | Language | Random assignment | Assessment counterbalancing | Group balancing |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cazzell et al. (2017) | Single subject design | 2 | No | Not reported | 9 and 12 | English | - | Yes | - |
| Chai (2017) | Single subject design | 3 | No | Not reported | 4 - 5 | English | No | - | - |
| Comaskey et al. (2009) | Pretest-posttest design with multiple experimental groups | 53 | No | K | Not reported | English | Yes | Yes | - |
| Ecalle et al. (2009) | Randomized control trial with pretest-posttest | 28 | No | 1 | 6 | French | Yes | No | Yes |
| Ecalle et al. (2013)b | Pretest-posttest design with multiple experimental groups | 27 | No | 2 | 7 | French | Yes | No | No |
| Ecalle et al. (2013)b | Pretest-posttest design with multiple experimental groups | 18 | No | 1 - 2 | 6 | French | No | No | Yes |
| Fan et al. (2018) | Case study | 10 | No | Not reported | 8 | English | - | No | - |
| Gustafson et al. (2015) | Pretest-posttest design with multiple experimental groups | 130 | No | 2 | Not reported | Swedish | Yes | No | Yes |
| Karemaker et al. (2010) | Pretest-posttest design | 17 | No | Not reported | 5 - 6 | English | No | No | No |
| Kleinsz et al. (2017) | Pretest-posttest design with multiple experimental groups | 44 | No | 2 | 7 | French | No | No | No |
| Kyle et al. (2013) | Pretest-posttest design with multiple experimental groupsa | 31 | No | 2 | 6 - 7 | English | No | No | Yes |
| Messer et al. (2018) | Randomized control trial with pretest-posttest | 78 | No | Not reported | 7 | English | Yes | No | No |
| Moser et al. (2017) | Quasi-experimental design with pretest-posttest | 29 | Yes | 4 | Not reported | English | Yes | No | Yes |
| O’Callaghan et al. (2016) | Randomized control trial with pretest-posttest | 98 | No | Not reported | 4 - 6 | English | Yes | No | - |
| Pindiprolu et al. (2019) | Pretest-posttest design with multiple experimental groupsa | 25 | No | K - 2 | Not reported | English | No | No | No |
| Potocki et al. (2015) | pretest-posttest design with multiple comparison groupsa | 77 | No | 6 - 7 | 13 | French | Yes | No | No |
| Rosas et al. (2017) | Pretest-posttest design with comparison groupa | 87 | Yes | 1 | Not reported | Spanish | Yes | Yes | Yes |
| Saine et al. (2010) | Pretest-posttest design with comparison group | 166 | No | 1 - 3 | 7 | Finnish | Yes | - | Yes |
| Schmitt et al. (2018) | Randomized control trial with pretest-posttest | 136 | No | PreK - K | 4 - 6 | English | Yes | No | No |
| Solheim et al. (2018) | Pretest-posttest design with comparison group | 744 | No | 1 | 6 | Norwegian | Yes | No | No |
| Wood et al. (2013) | Single subject design | 4 | No | K | 5 - 6 | English | - | - | - |

Note: aDesign was inferred. bBoth are reported in the same article but as different studies.

Table S2

Implementation details

| Author | Session number | Session duration | Session frequency | Modality | Group Size | Supervision |
| --- | --- | --- | --- | --- | --- | --- |
| Cazzell et al. (2017) | 14 - 17 | 30 | 3 | Individual | - | Supervised |
| Chai (2017) | Not reported | 13 | 3 - 4 | Group | 3 | Supervised |
| Comaskey et al. (2009) | 40 | 15 | 3 | Group | 4 | Supervised |
| Ecalle et al. (2009) | 12 | 30 | 5 | Individual | - | Supervised |
| Ecalle et al. (2013)a | 6 | 30 | 4 | Group | Not reported | Supervised |
| Ecalle et al. (2013)a | 20 | 30 | 4 | Group | Not reported | Supervised |
| Fan et al. (2018) | 8 | 5 | 3 - 4 | Individual | - | Supervised |
| Gustafson et al. (2015) | 25 | 15 - 25 | Not reported | Individual | - | Supervised |
| Karemaker et al. (2010) | Not reported | 60 | 5 | Individual | - | Supervised |
| Kleinsz et al. (2017) | Not reported | 30 | 4 | Group | Not reported | Supervised |
| Kyle et al. (2013) | 60 | 10 - 15 | 5 | Group | Not reported | Supervised |
| Messer et al. (2018) | 110.2 | 10 - 15 | 2 - 3 | Group | 2 - 3 | Supervised |
| Moser et al. (2017) | Not reported | 10 - 15 | 5 | Group | Not reported | Supervised |
| O’Callaghan et al. (2016) | Not reported | 20 - 30 | 5 | Individual | - | Supervised |
| Pindiprolu et al. (2019) | 40 | 25 - 30 | Not reported | Individual | - | Not supervised |
| Potocki et al. (2015) | Not reported | 30 | 4 | Individual | - | Supervised |
| Rosas et al. (2017) | 27 | 30 | 3 | Individual | - | Supervised |
| Saine et al. (2010) | Not reported | 15 | 4 | Group | 2 - 3 | Supervised |
| Schmitt et al. (2018) | Not reported | Not reported | Not reported | Individual | - | Not supervised |
| Solheim et al. (2018) | 93.4 | 45 | 4 | Individual | 3 - 7 | Supervised |
| Wood et al. (2013) | 25 | 7 | 3 | Group | 2 | Supervised |

Note. aBoth are reported in the same article but as different studies.

Table S3

Statistical components

| Author | Descriptive statistics | Mean/Median | Standard deviation | Mean confidence interval | Inferential statistics | Covariate | Specific p-value | Effect size | Mean difference confidence interval |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Cazzell et al. (2017) | Yes | No | No | - | - | - | - | - | No |
| Chai (2017) | Yes | Yes | No | - | - | - | - | - | No |
| Comaskey et al. (2009) | Yes | Yes | Yes | No | ANCOVA | Pretest reading skills | Yes | Yes | Yes |
| Ecalle et al. (2009) | Yes | Yes | Yes | No | ANOVA | - | Yes | Yes | No |
| Ecalle et al. (2013)a | Yes | Yes | No | No | ANOVA | - | Yes | Yes | No |
| Ecalle et al. (2013)a | Yes | Yes | Yes | No | ANOVA | - | Yes | Yes | No |
| Fan et al. (2018) | No | No | No | No | T-test | - | Yes | Yes | No |
| Gustafson et al. (2015) | Yes | Yes | Yes | Yes | ANOVA | - | No | Yes | No |
| Karemaker et al. (2010) | Yes | Yes | Yes | No | ANOVA | - | Yes | Yes | No |
| Kleinsz et al. (2017) | Yes | Yes | Yes | No | Wilcoxon signed-rank test | - | Yes | Yes | No |
| Kyle et al. (2013) | Yes | Yes | Yes | No | ANCOVA | Pretest reading skills | Yes | No | No |
| Messer et al. (2018) | Yes | Yes | Yes | No | Regression analysis | General intellectual ability | No | Yes | No |
| Moser et al. (2017) | Yes | Yes | Yes | No | ANCOVA | Pretest reading skills | Yes | No | No |
| O’Callaghan et al. | Yes | Yes | Yes | No | ANCOVA, ANOVAS, and Regression | Pretest reading skills | Yes | Yes | Yes |
| Pindiprolu et al. (2019) | Yes | Yes | Yes | No | ANCOVA | Pretest reading skills | Yes | Yes | No |
| Potocki et al. (2015) | No | - | - | - | ANCOVA | Pretest reading skills | Yes | Yes | No |
| Rosas et al. (2017) | Yes | Yes | Yes | No | ANCOVA | Pretest reading skills | Yes | Yes | No |
| Saine et al. (2010) | Yes | Yes | Yes | No | ANOVA | - | No | Yes | No |
| Schmitt et al. (2018) | Yes | Yes | Yes | No | ANCOVA | Pre-test reading skills, age, income, mother's age, mother's education | No | Yes | No |
| Solheim et al. (2018) | Yes | Yes | Yes | Yes | Regression analysis | Ceiling effects | Yes | Yes | Yes |
| Wood et al. (2013) | Yes | Yes | No | - | - | - | - | - | No |

Note. aBoth are reported in the same article but as different studies.

Table S4

Study’s findings component

| Author | Improved reading skills | Reading skills not improved | Effect size for reading skills | Effect size classification |
| --- | --- | --- | --- | --- |
| Cazzell et al. (2017) | Word reading | - | - | - |
| Chai (2017) | - | - | - | - |
| Comaskey et al. (2009) | Phonological skills | Phonological skills, word reading, phonics | n 2 = .09 - .15 | Medium to large |
| Ecalle et al. (2009) | Word reading, spelling | - | d = .79 - 1.28 | Medium to large |
| Ecalle et al. (2013)a | Word reading | - | n2 =.33 | Large |
| Ecalle et al. (2013)a | Word reading, Reading comprehension | - | d = 1.09 - 6.96 | Large |
| Fan et al. (2018) | Reading skills (not specified), Spelling | - | d = 1.5 - 12.1 | Large |
| Gustafson et al. (2015) | Reading comprehension, phonological skills, word reading | - | d = .45 - 1.34 | Small to large |
| Karemaker et al. (2010) | Word reading, phonological skills | - | d = .40 - .68 | Small to medium |
| Kleinsz et al. (2017) | Word reading, reading comprehension | Reading comprehension, word recognition | Grapho-syllabic training: r = .80 - .84,  Comprehension training: r = .52 - .88 | Grapho-syllabic training: large,  Comprehension training: medium to large |
| Kyle et al. (2013) | - | Vocabulary, word reading, spelling, phonological skills | - |  |
| Messer et al. (2018) | Reading fluency, spelling | Reading comprehension, vocabulary, reading fluency | d = .27 - .97 | Small to large |
| Moser et al. (2017) | - | Reading comprehension, Vocabulary, reading fluency | - | - |
| O’Callaghan et al. (2016) | Phonological skills, word reading | Phonological skills | n 2 = .064 - .070  d = .35 - .36 | Small to medium |
| Pindiprolu et al. (2019) | Reading Fluency | Phonological skills, word reading, phonics | d = .94 | Large |
| Potocki et al. (2015) | Word reading, reading fluency, reading comprehension | - | n2 = .06 - .14 | Medium to large |
| Rosas et al. (2017) | Rapid automatized naming, phonics | Phonological skills, phonics, word reading | n2 = High SES: .26  low SES: .21 | Large |
| Saine et al. (2010) | Word reading | - | posttest: d = .22 - 1.01, follow-up: d = -.30 - 1.01 | Posttest: small to large, follow-up: small to large |
| Schmitt et al. (2018) | Phonics, phonological skills, vocabulary | Phonics, phonological skills | n 2 = .04 - .159 | Small to large |
| Solheim et al. (2018) | Word reading, spelling | - | Hedges’ g = .57 - .75 | Medium |
| Wood et al. (2013) | Phonological skills | - | - | - |

Note. aBoth are reported in the same article but as different studies.