

# SUPPLEMENTARY MATERIAL

## *Meta-Analysis of Social-Emotional Learning (SEL) Interventions in Primary Schools*

Edwin, Josiharu Edmund Franky, Albert Djohanes, Togap Parlindungan Simanjuntak, Sachiko Takahi

*Full data-extraction record, complete analytic results (including the two-rater risk-of-bias reliability and sensitivity analyses), and the supplementary diagnostic figures supporting the main text.*

---

### Contents

Text S1. Information sources and search strategy  
Text S2. Effect-size computation conventions  
Table S1. PRISMA 2020 checklist  
Table S2. Full data-extraction record  
Table S3. Individual effect sizes and consensus risk of bias  
Table S4. Pooled estimates under three heterogeneity estimators  
Table S5. Heterogeneity, inference, and prediction intervals  
Table S6. Outcome-domain subgroup composition  
Table S7. Publication-bias diagnostics  
Table S8. Leave-one-out sensitivity (credible controlled set)  
Table S9. Influence diagnostics  
Table S10. Random-effects meta-regression  
Table S11. Inter-rater reliability of the ROBINS-I appraisal (Cohen's  $\kappa$ )  
Table S12. Sensitivity to the imputed pre-post correlation  
Figures S1–S2. Baujat and trim-and-fill diagnostic plots

# Supplementary Methods

## Text S1. Information sources and search strategy

The corpus was retrieved from Scopus, restricted to documents published between 2016 and 2025 in English, searched on the title–abstract–keyword fields. The search returned 4,043 records; full texts were sought for 887 documents, of which 882 were screened. The Boolean string was:

```
("social-emotional learning" OR "SEL" OR "emotional intelligence" OR "social skills" ) AND ( "intervention" OR "program" OR "strategy" OR "approach" ) AND ( "primary school" OR "elementary school" OR "children" OR "youth" )
```

## Text S2. Effect-size computation conventions

All effects are Hedges'  $g$  (positive favours SEL), corrected with  $J = 1 - 3/(4 \cdot df - 1)$ ; a pre–post correlation of  $r = .60$  was imputed for change-score variances (Table S12 reports the sensitivity of the credible estimate to this value). Study-specific conversions are documented in Table S2.

**Table S1.** PRISMA 2020 checklist indicating where each reporting item is addressed.

| Item | Topic                   | Checklist item                           | Location                     |
|------|-------------------------|------------------------------------------|------------------------------|
| 1    | Title                   | Identifies the report as a meta-analysis | Title                        |
| 2    | Abstract                | Structured summary                       | Abstract                     |
| 3    | Rationale               | Rationale in context                     | Introduction                 |
| 4    | Objectives              | Explicit questions                       | Introduction                 |
| 5    | Eligibility criteria    | Inclusion/exclusion                      | Methods – Inclusion Criteria |
| 6    | Information sources     | Databases and dates                      | Methods; Text S1             |
| 7    | Search strategy         | Full Boolean string                      | Text S1                      |
| 8    | Selection process       | Screening procedure                      | Methods; Figure 1            |
| 9    | Data collection         | Extraction procedure                     | Methods; Table S2            |
| 10   | Data items              | Outcomes/variables                       | Methods; Tables S2–S3        |
| 11   | Risk of bias            | ROBINS-I, two raters                     | Methods; Table 2; Table S11  |
| 12   | Effect measures         | Hedges' $g$                              | Methods; Text S2             |
| 13   | Synthesis methods       | Random-effects, estimators, grouping     | Methods; Tables S4–S6        |
| 14   | Reporting bias          | Egger, trim-and-fill                     | Table S7; Figure S2          |
| 15   | Certainty               | Sensitivity/influence                    | Tables S8–S12                |
| 16   | Study selection         | Flow                                     | Figure 1                     |
| 17   | Study characteristics   | Per-study                                | Table 1                      |
| 18   | Risk of bias in studies | Per-study appraisal                      | Table 2; Table S11           |
| 19   | Results of studies      | Effect + CI per study                    | Table S3; Figure 2           |
| 20   | Results of syntheses    | Pooled + heterogeneity                   | Tables S4–S5                 |
| 21   | Reporting biases        | Assessment results                       | Table S7; Figure S2          |
| 22   | Certainty of evidence   | Sensitivity/subgroups                    | Tables S6, S8–S12            |
| 23   | Discussion              | Interpretation/limits                    | Discussion; Conclusion       |
| 24   | Registration & protocol | Registration status                      | Methods (not registered)     |
| 25   | Support                 | Funding                                  | Declarations                 |
| 26   | Competing interests     | Author interests                         | Declarations                 |
| 27   | Data availability       | Data/code availability                   | Supplementary Material       |

*Note. Condensed mapping to the PRISMA 2020 statement (Page et al., 2021).*

## Supplementary Data

**Table S2.** Full data-extraction record: input statistics taken from each report and the derivation applied to obtain Hedges' g.

| ID  | Study                           | Input statistics                                                                             | Derivation                                                                                |
|-----|---------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| S1  | Lin et al. (2025)               | Group cell means/SDs at pre & post (I 4 subgroups N=123; C 4 subgroups N=158)                | Morris (2008) d_ppc on combined cells; r=0.60                                             |
| S2  | Kolodziejczyk et al. (2025)     | Time×group F for 3 emotion competences: 20.044, 8.969, 16.094 (n=323/305)                    | F→t→d (change-score); 3 aggregated                                                        |
| S3  | Coelho et al. (2023)            | Child-version M/SD on 7 subscales, pre & post, I(143)/C(65)                                  | Morris d_ppc per subscale; 7 aggregated                                                   |
| S4  | Ishchenko et al. (2024)         | EI integral M/SD: I 148.33±7.685→178.30±4.815; C 147.03±7.000→148.27±6.119 (30/30)           | Morris d_ppc                                                                              |
| S5  | Green et al. (2021)             | CDP total ANCOVA F(1,87)=15.24 (47/47)                                                       | ANCOVA F→t→d                                                                              |
| S6  | Lechner et al. (2025)           | Reported ANCOVA d on 6 SSIS-RS subscales: 0.54,0.69,0.32,0.31,0.58,0.34 (109/115)            | 6 reported d aggregated; Hedges J                                                         |
| S7  | Mayer et al. (2025)             | Year-3 condition F(2,2735), partial $\eta^2$ =.004 (SEE+ 912 vs 1826)                        | $\eta^2 \rightarrow d = 2\sqrt{(\eta^2/(1-\eta^2))}$                                      |
| S8  | Kiviruusu et al. (2016)         | M/SD pre & post on 3 outcomes (cooperation, empathy, prosocial), I(1940)/C(1594)             | Morris d_ppc; 3 aggregated                                                                |
| S9  | Calhoun et al. (2020)           | Reported model-based d=2.20 total social competence (150/177)                                | Reported d → variance from n; Hedges J                                                    |
| S10 | Kourmoussi et al. (2018)        | Change means & pre-SDs on 6 SEL dimensions, I(1516)/C(923)                                   | $d = (\Delta \text{mean}_I - \Delta \text{mean}_C) / \text{pooled pre-SD}$ ; 6 aggregated |
| S11 | Resurreccion et al. (2021)      | Mann–Whitney U=4349.5, self-awareness (103/118)                                              | U→z→r→d (Rosenthal, 1991)                                                                 |
| S12 | Santamaria-Villar et al. (2021) | Time×group F: MESSY 143.62; EQ-i 129.56 (50/50)                                              | F→t→d; 2 aggregated                                                                       |
| S13 | Marin-Marin et al. (2023)       | BarOn EI M/SD: I 2.97±0.292→3.03±0.365; C 3.00±0.240→2.73±0.472 (128/203)                    | Morris d_ppc                                                                              |
| S14 | Hartanto et al. (2021)          | Social-element ANOVA F=27.296 (45/45)                                                        | ANCOVA/between F→t→d                                                                      |
| S15 | Filippou et al. (2019)          | M/SD pre & post on 3 factors (hostile, appropriate, inappropriately assertive), I(132)/C(74) | Morris d_ppc, sign-adjusted; 3 aggregated                                                 |
| S16 | Moreira et al. (2025)           | Prosocial behaviour pre 8.59±2.03→post 9.02 (N=207)                                          | SMC; r=0.60                                                                               |
| S17 | Candeias et al. (2025)          | Paired t on 5 SEL domains: 9.623,7.932,8.229,7.571,7.571 (N=89)                              | SMC from paired t; 5 aggregated                                                           |
| S18 | Nur et al. (2025)               | Pre/post M/SD 2 outcomes: 29.97±2.76→32.80; 21.52±2.37→22.79 (N=90)                          | SMC; 2 aggregated                                                                         |

Note.  $r = .60$  imputed for change-score variances.  $d_{ppc}$  = pre-post-control SMD (Morris, 2008); SMC = standardized mean change; aggregated = within-study composite ( $r = .60$ ).

**Table S3.** Individual effect sizes, sample sizes, precision, outlier flag, and consensus ROBINS-I overall rating (18 studies).

| ID  | Study (year)                    | Country       | Design | N (I/C)   | g           | 95% CI        | SE   | RoB      |
|-----|---------------------------------|---------------|--------|-----------|-------------|---------------|------|----------|
| S1  | Lin et al. (2025)               | Taiwan        | BG     | 123/158   | <b>0.24</b> | [0.03, 0.46]  | 0.11 | Low      |
| S2  | Kolodziejczyk et al. (2025)     | Poland        | BG     | 323/305   | <b>0.27</b> | [0.15, 0.39]  | 0.06 | Moderate |
| S3  | Coelho et al. (2023)            | Portugal      | BG     | 143/65    | <b>0.03</b> | [-0.18, 0.24] | 0.11 | Moderate |
| S4  | Ishchenko et al. (2024)         | Ukraine       | BG     | 30/30     | <b>3.86</b> | [3.04, 4.68]  | 0.42 | Serious  |
| S5  | Green et al. (2021)             | USA           | BG     | 47/47     | <b>0.80</b> | [0.38, 1.22]  | 0.21 | Low      |
| S6  | Lechner et al. (2025)           | Germany       | BG     | 109/115   | <b>0.46</b> | [0.25, 0.68]  | 0.11 | Serious  |
| S7  | Mayer et al. (2025)             | England       | BG     | 912/1826  | <b>0.13</b> | [0.05, 0.21]  | 0.04 | Low      |
| S8  | Kiviruusu et al. (2016)         | Finland       | BG     | 1940/1594 | <b>0.03</b> | [-0.02, 0.08] | 0.03 | Low      |
| S9  | Calhoun et al. (2020)           | USA           | BG     | 150/177   | <b>2.19</b> | [1.92, 2.47]  | 0.14 | Serious  |
| S10 | Kourmoussi et al. (2018)        | Greece        | BG     | 1516/923  | <b>0.37</b> | [0.31, 0.43]  | 0.03 | Serious  |
| S11 | Resurreccion et al. (2021)      | Spain         | BG     | 103/118   | <b>0.50</b> | [0.24, 0.77]  | 0.14 | Serious  |
| S12 | Santamaria-Villar et al. (2021) | Spain         | BG     | 50/50     | <b>2.07</b> | [1.67, 2.48]  | 0.21 | Serious  |
| S13 | Marin-Marin et al. (2023)       | Spain         | BG     | 128/203   | <b>1.26</b> | [1.04, 1.48]  | 0.11 | Serious  |
| S14 | Hartanto et al. (2021)          | Indonesia     | BG     | 45/45     | <b>1.09</b> | [0.65, 1.53]  | 0.22 | Serious  |
| S15 | Filippou et al. (2019)          | Greece        | BG     | 132/74    | <b>1.60</b> | [1.34, 1.85]  | 0.13 | Serious  |
| S16 | Moreira et al. (2025)           | Portugal      | WG     | 207       | <b>0.21</b> | [0.09, 0.33]  | 0.06 | Serious  |
| S17 | Candeias et al. (2025)          | Multi-country | WG     | 89        | <b>0.77</b> | [0.59, 0.95]  | 0.09 | Serious  |
| S18 | Nur et al. (2025)               | Indonesia     | WG     | 90        | <b>0.77</b> | [0.58, 0.97]  | 0.10 | Serious  |

Note. BG = between-group controlled; WG = single-group pre-post. Shaded rows (S4, S9, S12) were flagged as statistically influential outliers (lower 95% CI bound > 1.5) and excluded from the credible controlled set. RoB = consensus ROBINS-I overall rating (Table 2).

## Supplementary Results

**Table S4.** Pooled Hedges'  $g$  under three between-study variance estimators, with Hartung–Knapp (HK) confidence intervals.

| Analysis                              | k  | DL $g$ [95% CI]   | REML $g$ [95% CI] | PM $g$ [95% CI]   | HK 95% CI     |
|---------------------------------------|----|-------------------|-------------------|-------------------|---------------|
| Controlled – all (naïve)              | 15 | 0.89 [0.64, 1.13] | 0.96 [0.45, 1.47] | 0.96 [0.44, 1.49] | [0.36, 1.42]  |
| <b>Controlled – outliers excluded</b> | 12 | 0.53 [0.34, 0.73] | 0.55 [0.27, 0.83] | 0.55 [0.26, 0.84] | [0.21, 0.86]  |
| <b>Low-to-moderate risk of bias</b>   | 6  | 0.18 [0.06, 0.30] | 0.18 [0.06, 0.30] | 0.21 [0.01, 0.40] | [-0.04, 0.39] |
| Emotional-competence subgroup         | 8  | 0.38 [0.17, 0.59] | 0.39 [0.11, 0.67] | 0.39 [0.10, 0.69] | [0.02, 0.74]  |
| Social-skills subgroup                | 4  | 0.87 [0.31, 1.42] | 0.86 [0.35, 1.38] | 0.87 [0.30, 1.44] | [-0.06, 1.79] |
| Single-group pre–post (secondary)     | 3  | 0.58 [0.17, 0.99] | 0.58 [0.27, 0.89] | 0.58 [0.21, 0.95] | [-0.23, 1.39] |
| All effects (design-mixed)            | 18 | 0.83 [0.61, 1.04] | 0.89 [0.47, 1.31] | 0.89 [0.46, 1.33] | [0.39, 1.26]  |

Note. DL = DerSimonian–Laird; REML = restricted maximum likelihood; PM = Paule–Mandel. Shaded rows are the two best-supported estimates: the outlier-excluded credible set and the low-to-moderate risk-of-bias subset. In the low-risk subset the HK interval includes zero.

**Table S5.** Inference, heterogeneity, and 95% prediction intervals (DerSimonian–Laird model).

| Analysis                              | k  | $g$ [95% CI]      | z    | p     | Q (df)     | I <sup>2</sup> | 95% PI        |
|---------------------------------------|----|-------------------|------|-------|------------|----------------|---------------|
| Controlled – all (naïve)              | 15 | 0.89 [0.64, 1.13] | 7.08 | <.001 | 657.9 (14) | 97.9%          | [-0.14, 1.92] |
| <b>Controlled – outliers excluded</b> | 12 | 0.53 [0.34, 0.73] | 5.40 | <.001 | 313.2 (11) | 96.5%          | [-0.22, 1.28] |
| <b>Low-to-moderate risk of bias</b>   | 6  | 0.18 [0.06, 0.30] | 2.87 | .004  | 28.6 (5)   | 82.5%          | [-0.21, 0.57] |
| Emotional-competence subgroup         | 8  | 0.38 [0.17, 0.59] | 3.57 | <.001 | 141.6 (7)  | 95.1%          | [-0.36, 1.12] |
| Social-skills subgroup                | 4  | 0.87 [0.31, 1.42] | 3.04 | .002  | 91.3 (3)   | 96.7%          | [-1.81, 3.54] |
| Single-group pre–post (secondary)     | 3  | 0.58 [0.17, 0.99] | 2.79 | .005  | 37.2 (2)   | 94.6%          | [-4.58, 5.74] |
| All effects (design-mixed)            | 18 | 0.83 [0.61, 1.04] | 7.59 | <.001 | 712.2 (17) | 97.6%          | [-0.13, 1.79] |

Note.  $\tau^2$  (DL): credible set = 0.103; low-risk subset = 0.016. Every prediction interval crosses zero.

**Table S6.** Composition of the outcome-domain subgroups within the credible controlled set.

| Subgroup                    | k | $g$ [95% CI]      | Included studies                 |
|-----------------------------|---|-------------------|----------------------------------|
| <b>Emotional competence</b> | 8 | 0.38 [0.17, 0.59] | S1, S2, S3, S5, S7, S8, S11, S13 |
| <b>Social skills</b>        | 4 | 0.87 [0.31, 1.42] | S6, S10, S14, S15                |

Note. Restricted to the credible controlled set; single-group designs and outliers are excluded (hence eight and four studies rather than the full construct-based counts in Table 1).

**Table S7.** Publication-bias diagnostics: Egger's regression intercept and Duval–Tweedie trim-and-fill.

| Set                                       | Egger intercept | t (p)        | Trim-and-fill                                |
|-------------------------------------------|-----------------|--------------|----------------------------------------------|
| <b>Controlled – all (k = 15)</b>          | 7.57            | 3.93 (.002)  | —                                            |
| <b>Controlled – credible (k = 12)</b>     | 5.31            | 2.55 (.029)  | $k_0 = 0$ ; adjusted $g = 0.53$ [0.34, 0.73] |
| <b>All effects, design-mixed (k = 18)</b> | 7.68            | 4.51 (<.001) | —                                            |

Note. Asymmetry remained significant after outlier removal ( $p = .029$ ); trim-and-fill imputed no studies ( $k_0 = 0$ ), so the credible estimate is unchanged.

**Table S8.** Leave-one-out sensitivity for the credible controlled set (pooled DL Hedges'  $g$  of the remaining 11 studies).

| ID        | Study omitted               | Pooled $g$ | ID         | Study omitted              | Pooled $g$ |
|-----------|-----------------------------|------------|------------|----------------------------|------------|
| <b>S1</b> | Lin et al. (2025)           | 0.56       | <b>S8</b>  | Kiviruusu et al. (2016)    | 0.59       |
| <b>S2</b> | Kolodziejczyk et al. (2025) | 0.56       | <b>S10</b> | Kourmoussi et al. (2018)   | 0.56       |
| <b>S3</b> | Coelho et al. (2023)        | 0.58       | <b>S11</b> | Resurreccion et al. (2021) | 0.54       |
| <b>S5</b> | Green et al. (2021)         | 0.51       | <b>S13</b> | Marin-Marin et al. (2023)  | 0.46       |
| <b>S6</b> | Lechner et al. (2025)       | 0.54       | <b>S14</b> | Hartanto et al. (2021)     | 0.49       |
| <b>S7</b> | Mayer et al. (2025)         | 0.58       | <b>S15</b> | Filippou et al. (2019)     | 0.43       |

Note. Pooled estimate ranges from 0.43 to 0.59; no single study drives the credible estimate ( $g = 0.53$ ).

**Table S9.** Influence diagnostics for the 15 controlled studies: studentized deleted residuals and Cook's distances.

| ID | Study                       | $r_{SD}$ | Cook's D | ID  | Study                           | $r_{SD}$ | Cook's D |
|----|-----------------------------|----------|----------|-----|---------------------------------|----------|----------|
| S1 | Lin et al. (2025)           | -1.39    | 0.74     | S9  | Calhoun et al. (2020)           | 3.32     | 4.00     |
| S2 | Kolodziejczyk et al. (2025) | -1.31    | 0.92     | S10 | Kourmoussi et al. (2018)        | -1.01    | 1.35     |
| S3 | Coelho et al. (2023)        | -1.86    | 1.26     | S11 | Resurreccion et al. (2021)      | -0.82    | 0.24     |
| S4 | Ishchenko et al. (2024)     | 5.03     | 2.69     | S12 | Santamaria-Villar et al. (2021) | 2.56     | 1.84     |
| S5 | Green et al. (2021)         | -0.18    | 0.01     | S13 | Marin-Marín et al. (2023)       | 0.87     | 0.36     |
| S6 | Lechner et al. (2025)       | -0.92    | 0.33     | S14 | Hartanto et al. (2021)          | 0.41     | 0.05     |
| S7 | Mayer et al. (2025)         | -1.55    | 1.70     | S15 | Filippou et al. (2019)          | 1.66     | 1.12     |
| S8 | Kiviruusu et al. (2016)     | -1.74    | 2.13     |     |                                 |          |          |

*Note. Shaded studies (S4, S9, S12) are the only markedly influential effects, corroborating the funnel-plot and outlier-rule findings.*

**Table S10.** Univariate random-effects meta-regression (moderator slope, standard error, p-value).

| Moderator (set)                           | Slope b | SE    | p     |
|-------------------------------------------|---------|-------|-------|
| Publication year (all controlled, k = 15) | -0.021  | 0.045 | .640  |
| Publication year (credible, k = 12)       | -0.024  | 0.033 | .460  |
| log total N (all controlled, k = 15)      | -0.424  | 0.102 | <.001 |
| log total N (credible, k = 12)            | -0.212  | 0.080 | .008  |

*Note. Publication year did not predict effect size; larger studies reported systematically smaller effects (log-N slope negative and significant in both sets).*

**Table S11.** Inter-rater reliability of the ROBINS-I overall rating (two independent raters, before reconciliation).

| ID  | Study (year)                    | Rater 1  | Rater 2  | Consensus |
|-----|---------------------------------|----------|----------|-----------|
| S1  | Lin et al. (2025)               | Moderate | Low      | Low       |
| S2  | Kolodziejczyk et al. (2025)     | Moderate | Moderate | Moderate  |
| S3  | Coelho et al. (2023)            | Moderate | Moderate | Moderate  |
| S4  | Ishchenko et al. (2024)         | Serious  | Serious  | Serious   |
| S5  | Green et al. (2021)             | Low      | Low      | Low       |
| S6  | Lechner et al. (2025)           | Moderate | Serious  | Serious   |
| S7  | Mayer et al. (2025)             | Low      | Low      | Low       |
| S8  | Kiviruusu et al. (2016)         | Low      | Low      | Low       |
| S9  | Calhoun et al. (2020)           | Serious  | Serious  | Serious   |
| S10 | Kourmoussi et al. (2018)        | Moderate | Serious  | Serious   |
| S11 | Resurreccion et al. (2021)      | Serious  | Serious  | Serious   |
| S12 | Santamaria-Villar et al. (2021) | Serious  | Serious  | Serious   |
| S13 | Marin-Marín et al. (2023)       | Moderate | Serious  | Serious   |
| S14 | Hartanto et al. (2021)          | Serious  | Serious  | Serious   |
| S15 | Filippou et al. (2019)          | Serious  | Serious  | Serious   |
| S16 | Moreira et al. (2025)           | Serious  | Serious  | Serious   |
| S17 | Candeias et al. (2025)          | Serious  | Serious  | Serious   |
| S18 | Nur et al. (2025)               | Serious  | Serious  | Serious   |

Note. Two authors independently rated all 18 studies. Observed agreement = 77.8%; Cohen's  $\kappa = 0.63$  (95% CI [0.30, 0.95]), indicating substantial agreement (Landis & Koch, 1977). Shaded rows (S1, S6, S10, S13) were the four disagreements, resolved by discussion to the consensus shown.

**Table S11a.** Cross-classification of the two raters' overall ratings (before reconciliation).

| Rater 1 \ Rater 2 | Low | Moderate | Serious | Row total |
|-------------------|-----|----------|---------|-----------|
| Low               | 3   | 0        | 0       | 3         |
| Moderate          | 1   | 2        | 3       | 6         |
| Serious           | 0   | 0        | 9       | 9         |
| Column total      | 4   | 2        | 12      | 18        |

Note. Diagonal cells are agreements (14 of 18). The four off-diagonal cases are S1, S6, S10, and S13.

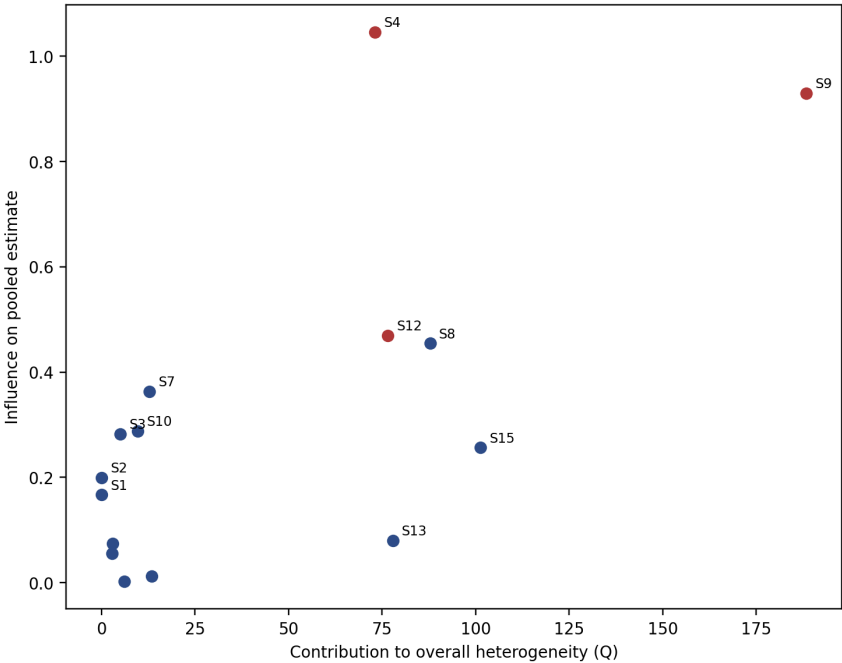
**Table S12.** Sensitivity of the credible controlled estimate to the imputed pre-post correlation (r).

| Imputed r | Credible k | Credible g [95% CI] | Flagged outliers |
|-----------|------------|---------------------|------------------|
| 0.50      | 12         | 0.53 [0.34, 0.73]   | S4, S9, S12      |
| 0.60      | 12         | 0.53 [0.34, 0.73]   | S4, S9, S12      |
| 0.70      | 13         | 0.62 [0.42, 0.82]   | S4, S9           |

Note. The credible estimate is essentially unchanged ( $g = 0.53$ ) at  $r = .50$  and  $.60$ . At  $r = .70$  one flagged study (S12) falls just below the outlier threshold and re-enters the credible set, nudging the estimate to 0.62; the substantive conclusion is unaffected.

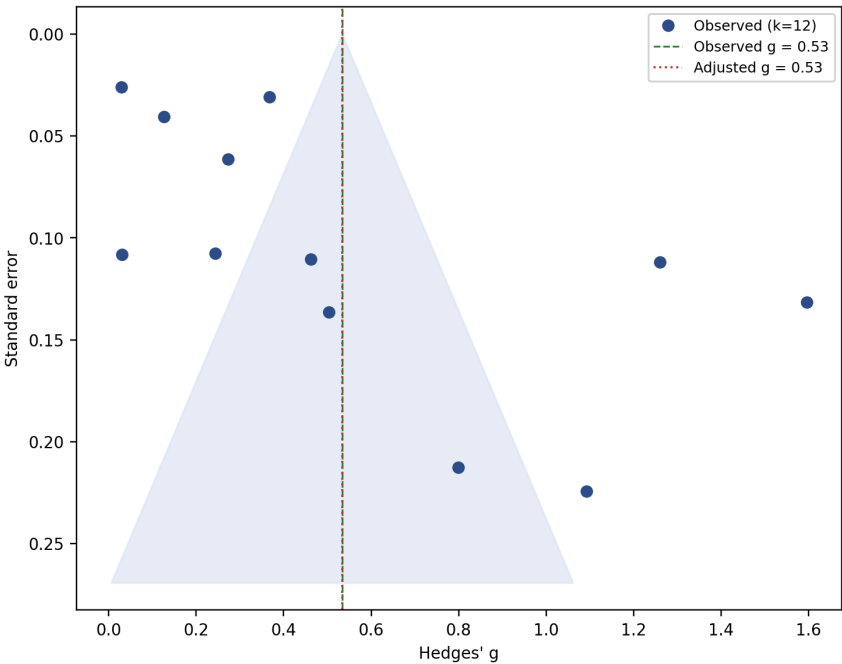
# Supplementary Figures

**Figure S1.** Baujat plot for the controlled studies.



*Note. Studies in the upper-right region (S4, S9, S12) contribute most to heterogeneity and most strongly influence the pooled estimate.*

**Figure S2.** Trim-and-fill funnel plot for the credible controlled set.



*Note. No studies were imputed ( $k_0 = 0$ ); the adjusted estimate equals the observed  $g = 0.53$ .*