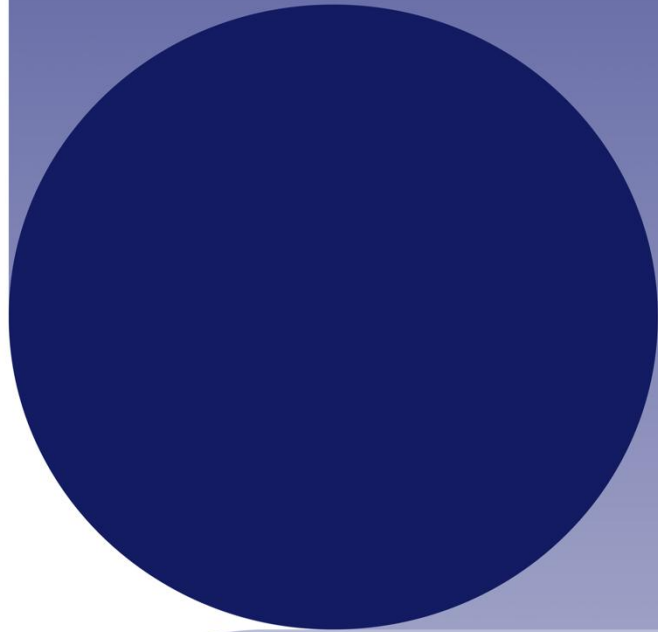




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## **Professional Collaboration in Education**

### **Protocol for a Rapid Evidence Assessment**



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The Education Endowment Foundation is an independent charity dedicated to breaking the link between family income and education achievement. We support schools, colleges, and early years settings to improve teaching and learning for 2 – 19-year-olds through better use of evidence.

We do this by:

- **Summarising evidence.** Reviewing the best available evidence on teaching and learning and presenting in an accessible way.
- **Finding new evidence.** Funding independent evaluations of programmes and approaches that aim to raise the attainment of children and young people from socio-economically disadvantaged backgrounds. Putting evidence to use.
- **Putting evidence to use.** Supporting education practitioners, as well as policymakers and other organisations, to use evidence in ways that improve teaching and learning.

We were set-up in 2011 by the Sutton Trust partnership with Impetus with a founding £125m grant from the Department for Education. In 2022, we were reendowed with an additional £137m from government, allowing us to continue our work until at least 2032.

For more information about the EEF or this report please contact:



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# Background and review rationale

The Education Endowment Foundation (EEF) publishes Guidance Reports that provide settings with practical, evidence-based recommendations that help promote pupil progress and drive school improvement. As part of our broader impact strategy, we are committed to regularly updating these reports to reflect an evolving evidence base and ensuring they continue to meet schools' and settings' needs.

Through this process, we have identified a gap in our guidance around **professional collaboration**, an activity we define as education professionals (leaders, teachers or school support staff) working together to achieve common goals related to teaching, learning and school improvement. Professional collaboration is considered a potentially important way to support teaching and learning, educators' professional learning, and promote educator motivation and retention, while also having possible benefits for pupil outcomes. Yet, the evidence base remains fragmented, likely because collaboration takes many forms – for example, professional learning communities, communities of practice, and inter-school networks or partnerships. It is unclear which forms are most effective and how leaders can implement these well to maximise their impact.

Initial scoping has revealed that several reviews on professional collaboration in education exist, yet there are limitations and gaps that this review will seek to address:

- Reviews are dispersed across multiple fields - such as leadership, school improvement, professional learning, organisational theory - often using different terminology and conceptual frames;
- Most leadership reviews are school-centric, with comparably less synthesis on collaboration beyond a single school, across settings and systems (i.e., both intra- *and* inter-school collaboration); and
- There is relatively little evidence emphasising the specific, observable leadership behaviours that can promote professional collaboration. Research tends to focus on professional collaboration in a more general sense.

To build a clearer understanding of how leaders can facilitate effective collaboration, the EEF is conducting this rapid evidence assessment. This will be an umbrella review (i.e., a review of reviews), given the existence of several relevant syntheses. To address the above limitations, the REA will focus on specific, observable collaboration activities, as well as leadership practices that support collaboration, both within and between settings. It will bring together insights from across different fields to provide a coherent overview of 'what works' for professional collaboration in education and the factors that can enable or hinder implementation. We will also use the findings to develop a set of key principles that leaders can reflect on and apply in practice.

## Objectives

The aim of this review is to summarise the effects of professional collaboration on pupil, teacher and setting outcomes. We aim to identify particular approaches to professional collaboration that have a positive effect, as well as the specific leadership behaviours and conditions that enable them.

## Research questions

We propose the following primary research question:

1. Does professional collaboration improve pupil, teacher or setting-level outcomes?

In addition, we propose the following supplementary questions:

2. Which types of professional collaboration activity seem most promising? Does this vary by educational phase?
3. What are the leadership approaches or behaviours that support effective professional collaboration?
4. What are the enablers/barriers to implementation?

5. Are there any approaches to professional collaboration that are especially effective for settings serving high proportions of disadvantaged pupils?

## Methodology

This REA will be an umbrella review (also known as a ‘review overview’ or ‘review of reviews’). Such reviews “use explicit and systematic methods to search for and identify multiple reviews on related research questions in the same topic area for the purpose of extracting and analysing their results across outcomes” (Pollock et al., 2023, p.1.). In many respects the principles largely mirror those of systematic reviews of primary research, except that the focus is on synthesising reviews rather than individual studies. We draw upon on Cochrane’s methodological guidance for Overviews of Reviews where applicable (Pollock et al., 2023), as well as the preliminary guidelines developed specifically for education research overviews provided by Polanin et al. (2016). Scoping work reveals that relatively few reviews in this area focus exclusively on quantitative studies. This REA will therefore consider reviews that draw on quantitative and/or qualitative studies, provided those reviews are conducted systematically.

## Inclusion and exclusion criteria for the review

The scope of this review has been informed by the research questions, resources, and the timeframe. The following criteria will be used to determine whether a review will be included in the umbrella review. Note that inclusion and exclusion criteria would normally include a ‘Comparison’ criterion. However, the inclusion of both qualitative and quantitative data means that studies will not be excluded solely on the basis of having no comparator. Studies with comparators will be used to answer effectiveness RQs (i.e. RQs 1-2), but studies without comparators will help provide evidence relating to leadership behaviours, enablers, barriers and potential to support disadvantaged pupils (i.e. RQs 3-4).

	Include	Exclude	Rationale
Study design	Systematic reviews, meta-analyses and mixed method syntheses	Single studies, narrative and non-systematic reviews	Several syntheses exist; an umbrella review is most appropriate
Population	Reviews where 50%+ of the studies in the review take place in mainstream Early Years settings, primary schools, secondary schools, or further education settings  Collaboration can be between any staff within or between settings (e.g. leaders, teachers, support staff)	Reviews where 50%+ of the studies in the review take place outside the field of education (e.g. healthcare), specialist education provision, or in Higher Education settings	To maximise the applicability of findings to education
Phenomena of interest	Studies that focus on at least one type of professional collaboration or the leadership behaviours that enable collaboration	Reviews that focus on family engagement, collaboration with external services, or topics outside of professional collaboration.  Reviews that focus on collaboration relating to formal qualifications or collaboration designed to meet statutory requirements (e.g. line management, exam moderation, NPQs or ECT mentoring)	Topic relevance
Outcomes measures	Reviews with studies that have: <ul style="list-style-type: none"> <li>• Outcomes for pupil attainment (real or perceived );</li> <li>• Outcomes for teaching practice or effectiveness;</li> <li>• Teacher-level outcomes related to job satisfaction, wellbeing, motivation or retention;</li> <li>• Setting-level outcomes related to school improvement, teaching and learning or culture/climate</li> </ul>	Reviews that do not summarise outcomes or perceived outcomes of professional collaboration	Leaders are interested in improving teacher-level as well as pupil-level outcomes. EEF’s work on teacher recruitment and retention suggests professional collaboration could be promising for improving teacher retention

Other criteria	Published since 2000 Published in English Journals or grey literature	Published before 2000 Published in languages other than English	
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## Search strategy for identification of studies

Searches will take place in Web of Science Core Collection and EBSCO (specifically, we will search APA PsycInfo; British Education Index; Education Abstracts (H.W. Wilson); Educational Administration Abstracts; and ERIC). We will also review the first 1000 returns for Google Scholar and hand search known sources of systematic reviews. Where possible, filters relating to the inclusion/exclusion criteria will be applied at the search stage (e.g. date ranges) or additional exclusion terms using NOT. References will then be managed in EPPI-Reviewer.

Search systems and databases to be searched:

- Web of Science Core Collection
- APA PsycInfo
- British Education Index
- Education Abstracts (H.W. Wilson)
- Educational Administration Abstracts
- ERIC
- Google Scholar
- Campbell Collaboration Library of Systematic Reviews
- Cochrane Library of Systematic Reviews
- EPPI Centre Library of Reviews
- Open Science Framework

## Search terms

The search strings below will be used to identify reviews. These have been developed through preliminary database searches to assess search term sensitivity and precision.

Category	Search terms
Professional collaboration AND	“professional collaboration” OR collaboration OR “collaborative practice” OR “collaborative planning” OR “collaborative lesson planning” OR “professional learning” OR PLC OR “communities of practice” OR network OR “inter-school” OR “critical friend*” OR partnership* OR “teacher learning” OR “informal learning” OR “implicit learning” OR “cross-school” OR “lesson study”
Education context AND	school OR primary OR secondary OR “early years” OR nurser* OR “further education” OR teach* OR “headteacher” OR “school leader*” OR principal
Study design	review* OR “meta-analysis” OR “evidence synthesis”

## Selection of studies

The results of the search will be imported into EPPI Reviewer and duplicates removed. Screening will take place in two stages. Search results will first be screened based on title and abstract, and then again on the full text. A minimum of two reviewers will be involved in the screening process. At the title and abstract stage, each reviewer will begin by screening the same 30 search results. The results of this calibration exercise will be used to ensure that the inclusion and exclusion

criteria are being interpreted and applied in the same way. In cases where reviewers disagree, they will meet to discuss, with any discrepancies identified and resolved. From this point, reviewers will screen independently but will have the option to mark the record for a second opinion. At the full text screening stage, reviewers will screen (the same) 20% of full texts and meet to discuss and resolve discrepancies. If agreement is high (~80%), reviewers will then continue to screen independently, again with the option to mark for a second opinion.

The process will be mapped using a PRISMA flow chart (Page et al., 2021).

## **Data extraction and management**

We will systematically extract data in EPPI Reviewer using a bespoke data extraction tool<sup>1</sup>. Two reviewers will be involved in the data extraction process. Included systematic reviews will be randomly divided into two sets. One reviewer will extract data from the first set while the second reviewer extracts data from the second set. Each reviewer will then independently check the data extracted by the other reviewer for accuracy, completeness and consistency, with particular attention to the outcome data. Discrepancies will be resolved through discussion, and if necessary, consultation with a third reviewer. In the review, extracted data will be presented in a table(s) of characteristics.

It is likely that some primary studies will appear in more than one included review. Following guidance on managing primary study overlap, a citation matrix will be created to map individual primary studies across the included reviews (Pollock et al., 2023). The extent and nature of any overlap will be clearly reported to ensure transparency.

A draft version of the data extraction tool is included as an appendix. The categories for codes 6, 7, 11 and 12 were informed by initial scoping and may be refined, combined or removed as the review progresses.

## **Appraisal of included studies**

Quality of included studies will be appraised using the AMSTAR2 tool (Shea et al., 2017), developed to assess the methodological quality of systematic reviews that include both randomised and non-randomised studies (Pollock et al., 2023). Two reviewers will conduct the quality appraisal.

AMSTAR2 focuses on several 'best practice' key areas, such as:

- Registering a protocol in advance;
- Conducting an adequate literature search;
- Justifying excluded studies;
- Assessing risk of bias in included studies;
- Considering bias when interpreting results; and
- Checking for publication bias.

Some minor adaptations will be used to ensure applicability to a broader range of reviews (e.g. mixed method). The tool uses several criteria to provide an overall confidence rating of the review's findings (high, moderate, low, critically low). The confidence rating will be reported for each review. Reviews will not be excluded on the basis of the quality appraisal exercise, but the overall confidence ratings of individual reviews will be used to support or caveat their findings as necessary.

A draft version of the appraisal tool is included as an appendix.

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<sup>1</sup> Due to this REA consisting of a review of reviews, it will not be possible to align the tool codes with the EEF Database Main Data Extraction Tool.

## Data synthesis

A narrative synthesis approach will be used throughout. Any converging and conflicting findings between reviews will be described and, where possible, reasons for discrepancies will be explored (e.g. differences in context, methods, or study quality). Studies will be grouped into relevant categories, with grouping choice depending on the level of detail available in the included reviews.

Given the mixed methods nature of the evidence base – with many reviews combining qualitative and quantitative studies – a triangulation approach will be used. Qualitative findings (e.g. descriptive themes generated by the authors) will be compared with quantitative findings (e.g. effect sizes) to identify areas of convergence or contradiction. Where relevant, the synthesis will integrate qualitative insights to explain or contextualise quantitative findings, and/or use thematic analysis for qualitative data to develop overarching themes (especially for leadership behaviours and implementation enablers/barriers). No meta-analysis is planned, but where reviews do provide effect size estimates, this information will be extracted and reported.

The bullets below indicate how the specific codes from the data extraction tool will be used to answer each of the research questions:

### **1. Does professional collaboration improve pupil, teacher or setting-level outcomes?**

Evidence of effectiveness will come from Code 9 (key findings summary) and Code 10 (effect sizes). Findings will be synthesised narratively, and, where possible, disaggregated by collaboration type (Codes 5 and 6). Outcome type will be captured via Code 8. Findings will be synthesised separately for pupil, teacher- or setting-level outcomes.

### **2. Which types of professional collaboration activities seem most promising? Do these vary by educational phase?**

Where subgroup data by phase/setting type is available (Code 3), findings will be synthesised narratively to highlight similarities and differences. This may not be possible if most reviews do not perform subgroup analyses or if one type of setting is overrepresented in the sample.

### **3. What are the leadership approaches or behaviours that support effective professional collaboration?**

4. Quantitative and qualitative data on leadership behaviours (Code 11) will be synthesised in order to organise findings into descriptive themes. The preliminary ‘Leadership behaviours’ category options in the draft data extraction tool are based on preliminary scoping; these may be iteratively renamed, merged or removed as appropriate.

### **5. What are the enablers/barriers to implementation?**

Quantitative and qualitative data on contextual enablers/barriers for implementation (Code 12) will be synthesised in order to organise findings into descriptive themes. The preliminary ‘Contextual enablers/barriers’ category options in the draft data extraction tool are based on preliminary scoping; these may be iteratively renamed, merged or removed as appropriate.

### **6. Are there approaches to professional collaboration that are especially effective for settings serving high proportions of disadvantaged pupils?**

Code 13 will capture any relevant findings around disadvantage. If direct evidence of effectiveness is not available, the synthesis will shift to focus on implementation challenges or enablers specific to disadvantaged contexts. Findings will be integrated with insights from other research questions, where appropriate.

## Reporting

The technical report will use the EEF review reporting template for evidence reviews, with the necessary adaptations made to suit an umbrella review. The review culminates in a set of key principles that leaders can reflect on and apply in practice. This may be used to develop a standalone school-facing publication or tool or used alongside other EEF reviews to generate broader guidance for leaders. The report will be peer reviewed by two independent peer reviewers.

## References

Page, M., Bossuyt, P. M., Boutron, I., Hoffman, T., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372. <https://doi.org/10.1136/bmj.n71>

Polanin, J., Maynard, B. R., & Dell, N. A (2016). Overviews in education research: A systematic review and analysis. *Review of Educational Research*, 87(1), 172-203. <https://doi-org.ezphost.dur.ac.uk/10.3102/003465431663111>

Pollock, M., Fernandes, R.M., Becker, L.A., Pieper, D., & Hartling, L. (2023). Chapter V: Overviews of Reviews. In Higgins, JPT, Thomas J (Eds). *Cochrane Handbook for Systematic Reviews of Interventions Version 6.5. Cochrane*. Available at: <https://www.cochrane.org/authors/handbooks-and-manuals/handbook/current/chapter-v>

Shea, B.J., Reeves, B.C., Wells, G., Thuku, M., Hamel, C., Moran, J., Moher, D., Tugwell, P., Welch, V., Kristjansson, E., & Henry, D.A. (2017). AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *BMJ*, 358, j4008.

## Appendix A – Draft data extraction tool

Field	Description	Options
1. Review type	Select the type of review.	<p>Systematic review</p> <p>Scoping review</p> <p>Meta-analysis</p> <p>Qualitative synthesis</p> <p>Mixed-methods synthesis</p> <p>Umbrella review</p>
2. Country(ies)	Identify the countries covered by the review.	[Open text]
3. Educational setting	Select all the educational phases covered by the review. Select all that apply.	<p>Early years</p> <p>Primary</p> <p>Secondary</p> <p>Post-16</p> <p>Not specified</p>
4. Who is collaborating?	Select the primary collaborators focussed on in the review. Select all that apply.	<p>Teacher-teacher</p> <p>Leader-teacher</p> <p>Leader-leader</p> <p>Teacher-support staff</p> <p>Leader-support staff</p> <p>Support staff-support staff</p> <p>Not specified</p>
5. Level of collaboration	Select the level of collaboration.	<p>Within-setting</p> <p>Between-setting</p> <p>Between schools within a distinct system (e.g. MAT)</p> <p>Not specified</p>
6. Collaboration activities	Select the collaboration activities covered in the review.	<p><b>Sharing and exchanging</b></p> <p>Sharing experiences or lessons learnt</p> <p>Sharing instructional strategies or good practice</p> <p>Sharing resources or materials</p> <p><b>Co-constructing</b></p> <p>Joint planning or problem-solving</p> <p>Collaborative resource or curriculum development</p> <p>Jointly carrying out projects or research</p> <p><b>Observation, feedback and reflection</b></p> <p>Peer observation and feedback</p> <p>Discussing pupil learning</p> <p>Discussing research (e.g. journal club, reading group)</p> <p>Learning walks</p>

		<b>Relational and informal support</b> Networking Coaching and mentoring Social support (e.g. buddy systems) Informal/unstructured interactions (e.g. social media) Other (please specify)
7. Collaboration purpose	Specify whether the collaboration was for a specific purpose. Select all that apply.	Not specified  Improving teaching practice (general)  Improving teaching practice (subject/domain specific)  Supporting pupil wider outcomes (e.g. pastoral)  Supporting specific pupil subgroup (e.g. disadvantaged, SEND, EAL)  Supporting transitions between educational phases  Reducing staff workload or improving wellbeing / job satisfaction  Improving organisational efficiency (e.g. aiming to share costs)  Other (please specify)
8. Outcomes reported	Which outcomes are reported in the review?	Pupil outcomes (actual)  Pupil outcomes (perceived)  Teacher-level outcomes  Teaching quality  Teaching practice behaviours  Setting-level outcomes  Other (please specify)
9. Key findings	Provide a brief summary of the key findings relevant to the effect of professional collaboration on the reported outcomes.	[Open text]
10. Effect size(s)	If applicable, please provide any effect sizes reported by the review.	Not applicable  Yes (please give details)
11. Leadership behaviours	List any leadership approaches that support or facilitate effective professional collaboration.	Not specified  Shared decision-making/Distributed leadership  Building a trusting, supportive culture  Clear shared vision and goals  Clear and open communication  Specific focus on pupil outcomes  Demonstrating commitment and motivation

		<p>Aligning structures and policies to enable collaboration (e.g. dedicated time)</p> <p>Providing practical facilitation</p> <p>Other (please specify)</p>
12. Contextual enablers/barriers of professional collaboration	List any other enablers/barriers to effective collaboration as identified in the review. These can be quantified (e.g. via moderator analysis) or deduced by the authors through thematic analysis.	<p>Not specified</p> <p>School culture</p> <p>Funding and resourcing</p> <p>Workload or time constraints</p> <p>Competition or accountability processes</p> <p>Power dynamics</p> <p>Perceived effects on autonomy</p> <p>Staff skills and confidence</p> <p>Geography</p> <p>Technology and infrastructure</p> <p>Existing relationships or connections between settings</p> <p>Other (please specify)</p>
13. Mentions of disadvantage	Does the review include mention of collaboration for settings serving high proportions of disadvantaged pupils?	<p>No</p> <p>Yes (please give details)</p>

## Appendix B – Draft study appraisal tool

This tool is based on AMSTAR2; Shea et al., 2017)

AMSTAR question	Adaptations
Did the research questions and inclusion criteria for the review include the components of PICO?	Were the inclusion and exclusion criteria clearly specified?
Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?	None
Did the review authors explain their selection of the study designs for inclusion in the review?	None
Did the review authors use a comprehensive literature search strategy?	None
Did the review authors perform study selection in duplicate?	None
Did the review authors perform data extraction in duplicate?	None
Did the review authors provide a list of excluded studies and justify the exclusions?	Did the review authors provide reasons for exclusion?
Did the review authors describe the included studies in adequate detail?	None
Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?	None
Did the review authors report on the sources of funding for the studies included in the review?	Remove – not typical for social science reviews
If meta-analysis was performed did the review authors use appropriate methods for statistical combination of results?	None
If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?	None
Did the review authors account for RoB in individual studies when interpreting/ discussing the results of the review?	None
Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?	None
If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?	None
Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?	None

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