

Office of Education Research, National Institute of Education  
Local Evidence Synthesis Methodology

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A Local Evidence Synthesis (LES) is a synthetic review of research from ERF studies on a specific topic, in a specific time period (usually prior 5 years). They are purposive, aggregative reviews - “concerned with using predefined concepts and then testing these using predefined (a priori) methods” (Gough, et al 2012, see also Cooper, 1998). Each synthesis is based on ERF studies which are relevant to the stated topic in order to generate implications, applications and recommendations.

Every LES is collaboratively created by a writing team of OER/NIE content experts and a Ministry of Education (MOE) ‘resource team’ as policy experts (cf. Alton-Lee, 2007).

Each LES goes through a methodological process involving topic selection, search term generation, topic viability check, report selection, data extraction & theme generation, example selection, generation of implications/recommendations and feedback cycles including the LES series editor and MOE experts following guidelines from Gunnell, et al (2022).

#### *Topic selection*

Topics are collaboratively generated by OER, NIE scholars and MOE to ensure they are of current interest to policymakers and educators in Singapore (thus ‘local evidence’). Methodologically, topics might be ‘top-down’ (i.e. based on evergreen areas of interest such as teacher development or on current MOE policies) or ‘bottom up’ (based on analyses of the corpus of ERF final reports to determine topic with high frequency or other patterns of interest (i.e. through topic modelling - see Pascual, 2019, for a simple explanation of topic modeling).

#### *Search term generation*

After topics are generated, search terms are generated through consultation with NIE and MOE experts and with reference to the ERIC thesaurus (<https://eric.ed.gov/>).

#### *Topic viability check*

Search terms are used initially to conduct electronic searches of potential reports and to determine topic viability. Iterative searches are undertaken, including both online search and manual (reading) to refine the search term list and topic statement while also considering the number of reports with sufficiently robust evidence to synthesise. If a topic is considered to be viable, additional searches are done to raise a complete list of relevant reports.

#### *Report selection*

All reports which are potentially relevant are read with a focus on the findings/results, discussion/conclusion. Initial themes are derived from the first cycle reading and discussed by the writing team. The writing team also considers the methodology of individual projects, as in the reports, to consider how robust the findings are and any methodological implications for the synthesis. Though criteria can be set a priori, report selection always includes some subjectivity (Lefebvre, et al, 2020).

#### *Data extraction & theme generation with example selection*

Findings are considered as the main data and thus are extracted from the selected reports (with additional searches as needed). Themes are determined through iterative reading and discussion by the NIE experts, typically using inductive thematic analysis (Braun & Clarke, 2013). Examples are derived from specific reports to illustrate and clarify. Themes and examples may be shared with MOE experts, and potentially with other experts, for feedback.

#### *Generation of implications/recommendations*

After themes are confirmed, implications/recommendations are drawn out. All recommendations must have a clear relationship to at least one theme to ensure they are evidence-based.

#### *Feedback cycle*

Themes, examples and recommendations are shared with MOE experts for feedback. Revisions are made as needed.

#### *Presentation and publication*

The LES is revised based on feedback, the final form is generated, shared with MOE via a presentation at T3AP or other MOE platform and published online.

### References

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