International Conference on Current Trends in ELT

An Alternative Method of Literature Review: Systematic Review in English Language Teaching Research

Nasrin Sayfouri*

Iran University of Medical Sciences, School of Health Management and Information Sciences, Tehran, Iran

Abstract

Literature review in education in general, and in English language teaching (ELT) in particular, suffers from pitfalls such as, insufficient academic training, lack of explicit methodology, and lack of assessment of trustworthiness of the evidence. The present study has embarked on introducing the elements, advantages, and steps of systematic research synthesis as a more rigorous, more structured, and stricter methodology for reviewing the previous research. The method, having overwhelmed health and social sciences for several decades, has already penetrated ELT research initiated by the Evidence for Policy and Practice Information and Coordinating (EPPI) Center in England. ELT research synthesis, like the type of synthesis conducted in high quality health and social sciences research, is expected to be explicit, transparent, replicable, accountable, and potentially updatable.

© 2014 The Authors. Published by Elsevier Ltd. Open access under CC BY-NC-ND license. Selection and peer-review under responsibility of Urmia University, Iran.

Keywords: Literature Review, Systematic Review, Language Teaching Research

1. Introduction

A literature review is an account of the literature relevant to a particular topic which could be done for different purposes. It is often presented as the background of a research article or a postgraduate thesis or dissertation. A literature review, if done properly, serves a number of advantages. First, it can be a powerful learning device through which the writers can find the opportunity of being exposed to diverse ideas allowing them to learn from the

* Corresponding author. Tel.: +98-9123445585
E-mail address: nasrinsayfouri@gmail.com
successes, partial successes and failures of previous researchers. Secondly, a literature review is basically the first place in a research study where the writers can show their scholarly competence in their field by demonstrating the breadth of their reading and the depth of their understanding. Thirdly, it serves as the basis of the topic under study itself since, mostly, the overall research plan flows from an understanding of the gaps, inconsistencies, intellectual problems, and controversies emerging from the viable areas of the current literature (Murrey & Beglar, 2009).

Similar purposes can also be attributed to literature review in English language teaching (ELT) research, being a subdivision of educational research. As systematic reviews might not have been recognized adequately in ELT research, the present study aimed to shed light on the necessity of making modifications in literature review processes and procedures in ELT based on the universally-approved techniques of systematic review. This study could be beneficial for MA and PhD candidates as well as the researchers who wish to carry out more reliable research studies in different areas of applied linguistics.

To attain the aim mentioned above, firstly, some drawbacks observed in educational research are uncovered and illuminated which is followed by proposing ‘systematic research synthesis’, as an alternative to compensate for the pitfalls, together with its related elements and procedures.

2. Educational literature review: some drawbacks

2.1. Overall inadequacy in the quality of research evidence

Despite the consensus on the view about the necessity of research evidence in educational studies, there may be variation in the efficiency or credibility of such evidence. Shavelson et al (2003), while skeptical on the warranty of the evidence produced by current educational research due to inadequate quality, refer to National Research Council (NRS) committee (who were in charge of articulating the nature of scientific research in education and supporting high quality scientific educational research) that all the sciences, including scientific educational research, should share a set of epistemological and fundamental guiding principles in order to:

- pose significant questions that can be investigated empirically,
- link research to relevant theory,
- use methods that permit direct investigation of the question,
- provide a coherent and explicit chain of reasoning,
- attempt to yield findings that replicate and generalize across studies, and
- disclose research data and methods to enable scrutiny and critique
  (Shavelson et al, 2003, p.26)

It can, therefore, be concluded that neither literature review section of a study lacking quality itself nor the review section of a study gathering literature from the studies lacking quality can report reliable evidence.

2.2. Lack of academic training in conducting literature review

Embarking on a proper literature review might be a universal problem as Gough (2004a) argues that although conducting literature review properly is a difficult undertaking, until recently little guidance was given to the postgraduate students as how to carry out such reviews. “It was just assumed that people knew and maybe students were embarrassed to ask further. In practice, this properly meant that students gleaned what they could from reference lists and looking around the university library” (Gough, 2004a, pp.49-50).

2.3. Lack of explicit methodology

The methodology of synthesis of background research, if not adequately explicit, damages the integrity of the findings and the conclusions. As Gough (2004b) commented, non-explicit synthesis of research evidence reduces
the likelihood of being able to systematically build upon what already exists which may increase the chances of error. Another determining factor which underlines the value of explicitness in research studies is the fact that when knowledge is turned into evidence, it is basically affected by ideological or conceptual assumptions (Gough, 2004b) of all those involved which potentially leads to imposing bias to all the processes of the research (Figure 1). Observing the ever-present constraint of clarity on the part of the researchers produces consistent self-monitoring which, in turn, decreases the impact of ideological position and bias.

![Diagram of Evidence and Ideology](image)

**Fig. 1: Evidence and Ideology (Gough, 2004b, p.2)**

### 2.4. Lack of assessment of trustworthiness of the evidence

The researchers in education rarely assess the dependability of the methodology of the studies they are reporting in their literature review. Inappropriate methodologies produce defective findings which, if selected as the basis for another study, can damage the credibility of the new research generation which finally leads to a vicious cycle. If appropriate criteria are established in advance to measure the trustworthiness of the studies when detecting the related literature, the studies suffering from insufficient or faulty methodologies will be excluded from the review.

### 3. A historical overview of systematic reviews in education

It can be claimed that the movement of making a change in educational research, as termed ‘evidence informed’ education movement by Oakley (2002), was initiated in England during 50s, developed throughout the past years and, recently, acted as an important reference point for current debate about the application of the ‘evidence movement approach’ to educational research. The debate whether education is an art or a science together with an argument about the methods used to generate knowledge about effective and appropriate educational practices, on the one hand, and the systematically accumulated, replicable and generalizable evidence of the kind used to judge the therapeutic status of professional intervention in other fields, on the other, directed the movement forward (Oakley, 2002).

The movement led to the formation of Cochrane Collaboration, basically initiated from early 1980s, which is now an international network of researchers, academics, practitioners and users committed to produce quality assured, accessible, and cumulative knowledge, mostly in randomized experimental studies. The movement further evolved and Cochrane’s sister organization, the Campbell Collaboration, emerged which is adapting Cochrane methodology to prepare, maintain and disseminate systematic reviews of social interventions (Oakley, 2002; Gough, 2004a).

Recognizing the importance of managing (rather than generating) knowledge in the form of conducting systematic reviews in improving the evidence available to educational practitioners and policy-makers, the English Department for Education and Skills of the University of London Institute Of Education funded the Evidence for Policy and Practice Information and Coordinating (EPPI) Center. The main purposes of the funding are: to support groups of researchers, practitioners and users external to the EPPI Center to develop the tools, procedures and training needed to facilitate review group work; and create and sustain accessible web-based databases of systematically keyworded research literature, data from primary studies, and the results of systematic reviews (Oakley, 2002).
4. Elements of a systematic review

Any systematic research synthesis should include a published and peer-reviewed protocol that includes (Gasteen, 2010):

- a search strategy to find all the available studies, including journals, grey literature and unpublished studies,
- a relevant research question developed in consultation with users (if applicable),
- a set of inclusion and exclusion criteria to select the studies for review,
- a quality appraisal strategy that is relevant to the review question and the types of studies under review, and
- methods for synthesizing the studies, according to the type of data available.

5. Steps of a systematic review

The processes of conducting a systematic review include several phases that are parallel to those of primary research including problem formulation, sampling, data collection, data analysis, interpretation and presentation of results (Littell et al, 2008). However, systematic reviews specifically involve the following steps:

- Developing a set of clearly formulated objectives and specific, answerable research questions or hypotheses. This is best done in consultation with people who are likely to use results of the review (practitioners, policy makers, and consumers)
- Forming a review team that includes people with the diverse skills necessary (including substantive, methodological, and technical expertise)
- Creating explicit inclusion and exclusion criteria that specify the problems, conditions, populations, interventions, settings, comparisons, and study designs that will and will not be included in the review
- Developing a written protocol that details in advance the procedures and methods to be used
- In collaboration with information specialists, implementing a comprehensive and reproducible strategy to identify all relevant studies
- Screening titles and abstracts to identify potentially relevant studies
- Retrieving published and unpublished reports on potentially relevant studies
- Determining whether each study meets the review’s eligibility criteria. Two reviewers should judge each study, resolving disagreements (sometimes with a third reviewer), and documenting their decisions.
- Reliably extracting data from eligible studies onto standardized forms
- Assessing inter-rater reliability, resolving disagreements, and documenting decisions
- Systematically and critically appraising the qualities of included studies. As before, this should be done by two raters who resolve disagreements and document decisions
- Describing key features of included studies (through narrative, tables, and/or graphs)
- Presenting study results in ES metrics, with 95% confidence intervals
  (Littell et al, 2008, pp.20-23)

6. Systematic reviews and ELT

EPPI Center is probably the largest organization that conducts systematic reviews related to various areas of English language teaching and learning. In fact, during the first two years of the EPPI Center, ten review groups were selected to work in various areas of English language teaching, assessment, and learning, school leadership, gender and education, post-compulsory education, inclusive education, early years, thinking skills approached to effective learning and teaching, modern languages, and impact of continuing professional development on classroom teaching and learning (Okley, 2002). As it can be understood from the areas, they are directly or indirectly related to ELT.
To bring the discussion into a close, it can be said that EPPI Center’s activity on conducting trustworthy research synthesis on ELT is an inspiring example of how it can be performed. There are similar independent studies published in other journals which have attempted to follow the required rigor of systematic reviews in their works. For instance, Macaro et al (2012) has conducted a systematic review of CALL in English as a second language with a focus on primary and secondary education. Petersen (2011), on the other hand, has systematically reviewed narrative-based language intervention with children who have language impairment. These examples and a plenty of other rigorous reviews conducted by EPPI Center or elsewhere indicate that the time has already come to pay as much attention to thoroughness and fidelity in doing research in social sciences and humanities as it is now paid in health sciences.

References

Gasteen, M. (2010). Systematic reviews and evidence-informed policy: Overview, OFID Research and Evidence Division, Systematic Review Program. Retrieved online on July 3, 2013, from http://r4d.dfid.gov.uk/PDF/Articles/What_is_a_systematic_review_external.pdf

Gough, DA. (2004a). Systematic research synthesis to inform development of policy and practice in education. In G Thomas & R Pring (Eds), Evidence-based practice (pp. 44-62). Buckingham: Open University Press.

Gough, D. (2004b). Systematic Review: a way of synthesizing and making accessible research evidence to inform policy and practice in higher education. Discussion paper no. 6. Public discussion on the meaning of ‘evidence-based’ in higher education. The Higher Education Academy.

Littell, J., Corcoran, J., & Pillai, V. (2008). Systematic reviews and meta-analysis. Oxford: Oxford University Press.

Macaro, E., Handley, Z., & Walter, C. (2012). A systematic review of CALL in English as a second language: focus on primary and secondary education. Language Teaching, 45, (1), 1-43.

Murrey, N, & Beglar, D. (2009). Inside track: writing dissertations and theses. Dorset: Henry Ling Ltd. p.158.

Murray, A. (2002). Research evidence, knowledge management, and educational practice: lessons for all? Paper for high level forum on knowledge management in education and learning (pp. 1-6). Retrieved online on July 4, 2013, 4:29, from https://www1.oecd.org/edu/country-studies/2074395.pdf.

Petersen, D.B. (2011). A systematic review of narrative-based language intervention with children who have language impairment. Communication Disorder Quarterly, 32, 4, 207-220.

Shavelson, R., J., Phillips, D.C., Towne, L., & Feuer, M. J. (2003). On the science of education design studies, Educational Research, 32, 1, 25-28.