

“WHAT TYPE OF LITERATURE REVIEW SHOULD MY STUDENT DO?” — A CRITICAL REFLECTION FROM A SUPERVISOR

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We often expect our postgraduate students to have in-depth knowledge of the substantive area of interest of their dissertation research but we hardly ever give them clear guidance on what type of literature review will support this goal and how to conduct it. What is the difference between the different types of literature review? When is an integrative review, a systematic review, a critical review and a scoping review appropriate or expected? The type of literature review will be dictated by the type of research the students are planning to conduct or how far they have progressed with their dissertation research.

The purpose of a literature review on a particular topic is to review what other people have written about a topic. It is important to note that “[R]eviews of the literature are not summaries, they are arguments (that there is a gap that needs filling; that you have sound reasons for believing your hypotheses are likely to be true; that your methods have been well thought through in relation to your research goals ...) plus an exposition of the particular background knowledge needed to make progress with the research” (National Collaborating Centre for Methods and Tools n.d.).

Within a postgraduate project, there are several reasons for reviewing the literature. Typical for the purpose of a proposal development, I propose that a student conduct an integrative review. An integrative review includes a comprehensive research methodology that allows the review, critique, and synthesis of literature representative of a topic or issue (Soares et al. 2014, 329). It has the potential to inform research, practice and build new science, and, if well conducted, contribute to theory development (Whittemore and Knafl 2005, 546), which is an essential component of the developmental expectations of postgraduate students. An integrative review, additionally, includes the evaluation of scientific evidence, identifies gaps in the literature, recognises important issues in the

literature on the specific topic, helps to generate a research question, and categorises the theoretical or conceptual frameworks and methods used previously to investigate the research problem (Russell 2005, 1). The process of conducting an integrative literature review should be approached with the same intensity as rigor conducting a systematic review. An integrative review occurs in five steps, namely problem formulation, data collection or literature search, evaluation of data, data analysis, and interpretation and presentation of results (Soares et al. 2014, 330). Students should consider the following aspects when developing the integrative review question: (1) How do you define the concept under study (operationalise the concept)? (2) What theoretical perspectives are used to describe the concept under study? (3) What type of studies have been previously used to investigate the theme or concept and how can the scope be expanded? (4) What is the relationship between the phenomenon and other phenomena? and (5) What methodological approaches have been used previously to comprehend the concept? (Soares et al. 2014, 334).

A rigorous and well-defined strategy (the second step) should be followed during the literature search. A well-defined search of computerised databases is proposed supplemented with journal hand searches, and ancestry searching. The third stage is data evaluation. There is no gold standard how to conduct the data evaluation but it is recommended that the systematic review and extraction used for studies included in a systematic review be used. Quality scores should be included in the reporting (Whittemore and Knaf 2005, 546). The fourth is data analysis and interpretation. Data from the primary review “are ordered, coded, categorized and summarized into a unified and integrated conclusion about the research problem” (Whittemore and Knaf 2005, 550). A constant comparative method is followed during the data analysis that reflects on themes, variations, distinct patterns, and observed relationships. The final stage is data presentation. Three approaches to present the summary are suggested: a summary of the finding presenting themes as a description, a critical analysis of the methods and/or applicability in practice, and the creation of a new structure for the research problem and question (Soares et al. 2014, 336). Another format that is used in reporting the findings from an integrative review is similar to primary research, which includes an introduction, methods, results, and discussion sections.

Typically, it is not expected that postgraduate students conduct a systematic review as part of their dissertation. I, however, argue that it can be a standalone doctoral study. Siddaway (n.d.) agrees and argues that a systematic review is a piece of research in its own right. A systematic review is able to focus on much larger questions than single empirical studies ever can. It usually takes six to 12 months to conduct a systematic review. A huge quantity of research is conducted every year, often with contradictory results. “Systematic reviews aim to address problems by identifying, critically evaluating and integrating the findings of all relevant, high-quality individual studies addressing one or more research questions” (Siddaway n.d.). “A systematic review attempts to identify, appraise and synthesize all the empirical evidence that meets pre-specified eligibility criteria

to answer a given research question. Researchers conducting systematic reviews use explicit methods aimed at minimizing bias, in order to produce more reliable findings that can be used to inform decision making” (Cochrane Training 2017).

A systematic review is based on a clearly formulated question, identifies relevant studies, appraises their quality, and summarises the evidence by use of an explicit methodology. A clear protocol that includes an explicit description of the process to be followed for the systematic review needs to be developed before the review can start. It is the explicit and systematic approach that distinguishes systematic reviews from traditional reviews and commentaries (Khan et al. 2003, 118). Systematic reviews are regarded as being objective, systematic, transparent and replicable. The PICO-method is often used to define the research question and search term for a systematic review; P (population), I (intervention), C (comparison), and O (outcome). For example for a research question: “What types of preventive measure are effective in preventing falls in the older patient in a community hospital?”, the PICO will be as follows: P – elder patients in a community hospital, I – preventive measure, C – different forms of preventive measures, and O – decrease the incidence of falls. When reporting on the process of conducting a systematic review I suggest the use of a Prisma diagram that clearly indicates how the literature was identified, screened, how many were eligible and included in the final review. The analysis reflects on what is known, recommendations for practice, what remains unknown, uncertainty around findings, and recommendations for future research (Grant and Booth 2009, 95).

A critical literature review is often conducted later during the dissertation writing process. It should not be mistaken for the literature review for the proposal development. The critical literature review is part of a larger type of text, for example a chapter of a dissertation. Evaluation is the most important part of a critical literature review but typically does not include a formal quality assessment. A critical literature review is conducted to support findings. The synthesis is typical narrative and identifies conceptual contributions to existing or new theory (Grant and Booth 2009, 94). Rowland (n.d., 15) presents the following guide for the use of words in critical writing:

- Draw a conclusion, use words like therefore, consequently, thus, hence.
- Justify or explain, use words like because, since.
- Provide a contrasting or opposing view and/or critique, use words like although, however, while, in contrast.
- Provide illustrative or supporting evidence, use words like for example, such as.
- Make an additional supporting point or provide additional supporting evidence, use words like in addition, moreover, furthermore, similarly, equally, and likewise.

Lastly, a scoping review is done to determine the initial scope and assessment of the size of the available data. It aims at identifying the amount and nature of the evidence scope available. Students will typically conduct a scoping review at the start of their

proposal development. A scoping review does not include a formal quality assessment. The data are presented as quantity and quality and other key features, for example, the study design, population and methodology (Grant and Booth 2009, 95).

In conclusion, I will reflect on evaluating the quality of a literature review. When evaluating the quality of a literature review I propose that the following steps be visible: (a) a clear statement of the focus of the review, (b) an audit trail of the search and keywords used, (c) a trail of grey literature searched such as research reports, and non-research reports such as memos, newspaper articles, or meeting minutes, (d) classification of the documents represented, for example some documents might be classical pieces or policy statements about the issue in question, (e) a narrative synthesis of the information highlighting and demonstrating constructs and hypothesised causal linkages and identifying the essential themes of the documents to increase the understanding of the phenomena being investigated, and (f) a description of opposing findings and rival interpretations (Randolph 2009). Boote and Beile's Literature Review Scoring Rubric is an excellent tool to review the quality of a literature review (Boote and Beile 2005, 13).

Assessing the quality of the literature review of doctoral students provides insight into the students' future preparation as independent researchers. A well-conducted literature review is an indication of students' ability to critically analyse their own research and to make recommendations for future research. Practically, if doctoral students cannot identify what research has been conducted in their area of interest, I question their capacity to produce useful and timely research and to understand the most pressing issues within their field of study (Fitt, Walker, and Leary 2009).

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