

Literature Review

Introduction:

When we need data, where do we go? Nowadays, we probably turn to the Internet or visit a bookstore. We might watch a film, maybe something associated with our subject of investigation. This is all research of a kind. What is more, it is a 'literature review', a survey of various sources. Because it provides widely useful knowledge, literature review is a very important part of the research process. It is essential, not only at the beginning of the process, but throughout it. In research, particular bodies of literature are emphasized, while the results of secondary texts contribute laterally. Literature review contributes to every aspect of the research process. Additionally, the research result relates to the literature by expanding it (indeed, the success of the research depends upon whether the audience deems it worthy as an expansion of the literature). It is wrong to limit literature review only to the beginning of a research process; this is simply insufficient. The information it provides should have the following attributes:

- It should address a specific topic of inquiry (specific= no more than a paragraph or two).
- It should constitute a contribution to a larger body of information related to the topic.
- When completed, the information should be able to stand on its own for the use of others, independent of the original author.

'Literature' = a body of information, existing in a wide variety of stored formats, that has conceptual relevance for a particular topic of inquiry. It has fluid boundaries; its scope depends upon the topic of inquiry. Formulating the topic in such ways as to determine the initial scope of the literature is one of the first creative steps a researcher takes.

Annotated Bibliography versus Literature Review:

Literature reviews are produced from annotated bibliographies. In an annotated bibliography, by means of a listing of references, a researcher begins to amass a body of information that shapes the investigation (each reference cited includes a descriptive paragraph of the work's goals, its theoretical stance, and, most importantly, its relevance for the investigation). The literature review, on the other hand, is a narrative document, making use of the references in the annotated bibliography. It includes the following information:

- An introductory statement of the general intent of the literature exploration.
- A summary of the lines of existing research that provide background for the proposed research.
- The reviewer identifies specific areas that have not been covered, arguments that he/she wishes to challenge, or subjects of study that can be reconfigured.

Literature Review for Researchers and Designers:

Designers and researchers often have different needs. In design, the aim of research is usually an empirical object located in a particular place and time. On the other hand, pure research focuses on developing an explanatory conceptual system that exists beyond the confines of place and time. The use of literature review should reflect these differences. In design, literature review is used to garner facts for normative action. In 'research', on the other hand, literature is employed to ground the project in the proper theoretical/ philosophical/ epistemological starting points.

Uses of Literature Review:

- ◆ Identification of the research question: The literature can be 'mined' in active ways to identify topics of inquiry:
 - Topics of inquiry can emerge from analyzing, critiquing, and suggesting improvements to an extant work.
 - Also, research questions can emerge from a comparison of representative works in the literature.

- A topic of inquiry can emerge when an existing theory is used to assess a related theme.
- Existing theories can always be tested.
- A topic of inquiry can attempt expansions of an existing theory.
- There are many more possible ways for mining the literature to develop a research question. They all involve imagination and creativity (the ability to seek out new thematic connections). Research creativity is the ability to derive new implications from existing positions, critique past stances from an awareness of present positions, or even project future conditions based upon learned premises.
- ◆ Focusing the topic of inquiry: A topic of inquiry should not be too general. If there are too many possible answers for the topic, a study based on it will likely be amorphous. At the other extreme, a topic cannot be so restrictive that the answer will prove to have limited use. An indicator that a topic of inquiry may be either too broad or too restrictive is the inability to clearly and simply identify a relevant body of literature.
- ◆ Understanding the makeup of a research question: Subtle and pivotal distinctions in the makeup of a question can lead to an association with certain bodies of literature and not others. How is this accomplished? There is no easy answer. The creative back-and-forth between the literature and the topic is itself key.
- ◆ Understanding an idea's genetic roots: The literature is not only a conceptual domain of contemporary material; it is also a reservoir of historical information that contains the genetic links of an idea's background. It is always helpful to diagram the family tree of an idea during the literature review. One task is to 'grow the tree', by mapping additional connections as they are uncovered.
- ◆ Understanding the current conceptual landscape: It is also important to obtain knowledge of the literature in its contemporary context. First, consider points of view relating to the topic (any contemporary cross-section of a literature can reveal competing views for getting to one result, opposing agendas, nuanced vantage points, and so on). One should also look at the overarching intellectual agendas that tend to inform any investigations (poststructuralism, deconstruction, sustainability, etc.). Cross-disciplinary sampling of common themes goes towards situating the topic of inquiry in a contemporary arena.

Structure of Literature Review:

- ◆ Facts and Ideas: Literature can be organized in terms of facts and ideas. A fact is a clear and distinct relation held to be so by common agreement (eg President Garfield was shot by Charles Guiteau), while an idea is a statement of inference (eg Guiteau was a disappointed office-seeker). Facts are quantifiable and certifiable pieces of information, while ideas tend to have more of an illustrative or interpretive role. In generating a research report, the integration of facts and ideas is important (this is particularly true in qualitative studies).
- ◆ Primary and Secondary Sources: Primary sources are original sources. Secondary sources comment upon primary sources. Depending upon the research strategy chosen, there are nuances in what 'primary' can mean. 'Primary' and 'secondary' can easily blur in meaning, depending upon the exact intent of the research. Ultimately, however, an arrangement of the literature into primary and secondary (and even tertiary) sources is integral to framing the logic of a research project.
- ◆ Theory and Application: In the literature, there exist works that describe methodologies as well as works that simply apply them. The researcher would do well to identify both categories in the literature review.

Where to Go: Resources:

- ◆ Web: The Internet makes available an array of sources:
 - Internet search engines: Even without knowledge of any specific Web addresses, typing a key word into an Internet search engine can lead to innumerable Web sites containing that word.
 - Specialized search engines: Academic institutions usually subscribe to a variety of services offering specialized search engines in various disciplinary domains.
 - Full text services: Complete texts of journal articles or even books can be accessed via specialized search engines.
 - Library databases: Most library catalogues are now accessible via the Internet.
 - Specific Web sites: There are of course specific Web sites that researchers become acquainted with in various ways.
- ◆ Library: The library is still the place to conduct most research. Research libraries are usually attached to universities, and these reflect the research interests/ strengths of the particular institution. The holdings of public libraries reflect the town or city in which they are located. Specialized libraries are also attached to other institutions. A tendency among research libraries is to cross-list their holdings

in one centralized system, so that all materials are available via interlibrary loan.

- ◆ Archival materials: An archive is a limited-access repository of materials, usually connected to a particular entity, organized and maintained for long-term safekeeping and for selective review and use.
- ◆ Official documents: Documents from organizations and agencies are another source for literature review.
- ◆ Popular media: This is also a rich source for literature review. Materials from popular media often lend depth to a research report.

Organization and Retrieval:

Locating the resources is one thing, but organizing them and making some sort of conceptual sense out of the information is quite another. Pieces of information in the literature deemed relevant need to be noted in a systematic way. Notes need to record all of the bibliographic information of the source. In addition, the writing of a note is the first step toward framing an idea. The researcher must have a 'love of order'. He/she must have a system that allows for any piece of information to be retrieved. During the initial 'hunt' through the literature, the researcher simply keeps a notebook with jottings recorded chronologically. The facts should subsequently be organized in a more coherent way. As the research process advances, the initial notes can be further distilled or expanded into brief sentences or paragraphs, which are in turn organized either by literature area, by subtopic, or by chapter concentration of the research report, once that structure begins to emerge. Operational considerations aside, it is important to engage in concept formation. Even though imagination is hard to quantify, disciplined interactions with the literature can be good training.

Recommended Readings:

- Jacques Barzun, 'The Modern Researcher'
- Chris Hart, 'Doing a Literature Review': Particularly useful are the featured mapping diagrams, including 'feature maps', 'subject-relevance maps', 'taxonomic maps', and 'concept maps'.
- Paul Leedy, 'A Key to Better Reading' (1968): Great source on the sorting procedure.
- Paul Leedy, 'How to Read Research and Understand It' (1981)