# WRITING A LITERATURE REVIEW
By Susan Imel

A literature review can either be part of a larger study or free standing as a research effort in its own right.  Novice scholars may be most familiar with the literature review that is part of a larger study and may not realize that stand alone reviews are also considered a form of research (Torraco 2005).  Both types of reviews are developed using similar processes but have different emphases.  A widely held assumption seems to exist that preparing a literature review is a transparent process and thus little or no attention is given to this aspect of preparing researchers and scholars.

As a part of a larger study, the literature review provides the foundation for the study.  Unfortunately, the neglect of the literature review has led to many reviews, which are part of a larger study, being "only thinly disguised annotated bibliographies" (Hart, 1998, p. 1), rather than demonstrating an understanding of the research that has preceded and led to the study (Boote & Penny, 2005). Michael Moore (2004), editor of the American Journal of Distance Education, echoes this sentiment when he attributes low acceptance rates for the journal to "the propensity of many authors…to underestimate the importance of the literature review that *must* precede any presentation of data" (p. 127).

As a type of scholarly publication, free-standing literature reviews have been largely overlooked, but they are "no less rigorous or easier to write than other types of research articles" (Torraco, 2005, p. 356). Free-standing literature reviews can indicate a direction for future research in an area by pointing out

gaps, highlighting central or unresolved issues, bridging related or disparate areas, or providing new perspectives on the topic (Cooper, 1985; Russell, 2005; Torraco, 2005). Novice scholars seeking publication opportunities might consider how the literature review for their dissertations could be developed as a free standing article. An article by Manglitz (2003) represents one example of how the literature base from a dissertation study was used as the basis for a scholarly publication.

The purpose of this chapter is to demystify the literature review process, whether the review is part of a larger study or a stand alone effort. It begins with a section that defines literature reviews. The majority of the second section is concerned with strategies for thinking about how to construct a review but also includes a discussion of finding, and selecting the literature for the review. A third major section deals with scholarly analysis of the literature in preparation for writing the review. The final section on writing makes suggestions for constructing a quality review and points out some common pitfalls that occur in writing reviews.

## DEFINING LITERATURE REVIEWS

A number of different terms have been used to describe literature reviews including literature review, research review, integrative review, and research synthesis (Cooper 1998; Torraco 2005). (Meta-analysis, another term used to describe literature reviews, is a specialized form of synthesis that uses quantitative procedures to "statistically combine the results of studies" [Cooper, 1998, p. 3]. Meta-analysis will not be covered in this chapter; readers seeking additional information on the meta-analysis process can consult Cooper, 1998.)

Definitions for these terms may differ in emphasis but generally include two common elements: (1) coverage or review of a body of literature and (2) integration and synthesis of what has already been done in the literature. A good starting point in defining literature reviews is the following by Cooper (1988):

> First a literature review uses as its database of reports of primary or original scholarship and does not report new primary scholarship itself. The primary reports used in the literature may be verbal, but in the vast majority of cases reports are written documents. The types of scholarship may be empirical, theoretical, critical/analytic, or methodological in nature. Second, a literature review seeks to describe, summarize, evaluate, clarify and/or integrate the content of primary reports (p 107).

This definition introduces the idea that a variety of different types of materials can be included in a literature review and it also suggests that something is done to that material. In a quality literature review, the "something" that is done to the literature should include synthesis or integrative work that provides a new perspective on the topic (Boote & Penny 2005; Torraco 2005), resulting in a review that is more than the sum of the parts. A quality literature review should not just reflect or replicate previous research and writing on the topic under review but it should lead to new productive work (Lather 1999) and represent knowledge construction on the part of the writer. Ward (1983) points out that as a process synthesis shares similarities with other research processes such as the development of the problem statement and research hypotheses but that the "synthesis process is focused on creating new forms of knowledge" while the other processes are focused on design (p. 26).

Unfortunately, many literature reviews may admirably cover the literature, but they fail in terms of providing any insights about the literature. These

reviews are mostly "a simple enumeration of 'who said what,' a regurgitation of names and ideas" (Montuori, 2005, p. 374.) <span style="color:red">A literature review that is part of a larger project should provide the foundation for the research based on what has been done previously.  Free standing reviews should integrate the literature in such as way as to produce "new frameworks and perspectives on the topic" (Torraco 2005, p. 356).</span>

Developing a literature review involves much more than understanding what one is.  Quality literature reviews have structure and form.  An understanding of that structure can help in the development process.

## PRELIMINARY WORK:  BUILDING THE FOUNDATION

Some preliminary work prior to starting the review can provide a foundation for what is to follow.  This stage of the literature review process can be thought of as similar to planning the methodology section for a research study; a literature review that is part of a larger study can be thought of as a mini-research project.  Questions at this stage might include: "What is the review designed to accomplish?"; "What type of sources will be included?"; "How will the review be structured?"; and "What are effective ways of locating and selecting sources to be included in the review?"  Writers of free-standing reviews might also ask the question "Do I have a perspective I wish to share and, if so, how will that perspective be supported?"  Some tools for structuring a review and suggestions for locating and selecting materials follow.

### Tools for Structuring Reviews

Novices may find the process of writing a literature review overwhelming because they do not understand that reviews have structure.  Cooper's taxonomy

(1985; 1988; 2003), based on an extensive analysis of free-standing literature reviews in the fields of psychology and education, is a helpful tool for planning for the structure of a review.  It addresses many of the questions that are part of the review's methodology.  The taxonomy contains six identifying characteristics, each divided into categories that further define the characteristic.  It not only provides a method of analyzing how a review is structured or organized but it can also be used as a tool to guide the development of a review, whether part of a larger study or free standing.

The six characteristics included in the typology are focus, goal, perspective, coverage, organization, and audience.  For novices, the characteristics of focus, coverage, and organization may be most useful in the planning that precedes the development of a review.  The characteristic of goal plays a secondary role, because for most reviews the goal is integration or synthesis.  Below the characteristics are discussed separately but important relationships exist among them and the completed review should have internal consistency (Cooper, 1985; 1988).

The characteristic *focus* refers to the type of literature that is included in the review:  reports of research outcomes, research methods, theoretical literature, or practical or applied literature. Most scholarly reviews focus on research outcomes or theoretical literature or a combination of the two.  This characteristic helps novices think about what types of literature will be central to their review.   For some reviews, the focus will always be reports of previous research studies but for others the choice about what to include may be tied to other aspects of the review, such as overall goal or purpose.  A review by Smith

(2008) included only very specific types of literature related to competency studies due to the review's purpose.

How much literature to actually include—coverage—is another aspect to consider during the planning stage. The taxonomy suggests four possible categories: comprehensive or exhaustive; comprehensive with selective citation; representative; and central or pivotal. Although a decision about the exact nature of the coverage will probably not be made during planning, it is important to consider the choices. Coverage for a review that is part of a larger study will probably fall into the category of "comprehensive with selective citation;" that is, the reviewer will consider all the possible sources but not include everything in the review. A reviewer might say, for example, that all the relevant literature was retrieved and examined in some way but only those pieces that met certain stated criteria were included. In free-standing reviews, however, certain parameters may be established that will enable the coverage to be comprehensive. Decisions about coverage should be made with the understanding that "each decision alters the character of the set [of literature] as a whole and could also therefore alter the net conclusions drawn from the set" (Kennedy 2007, p. 139). How and why decisions about coverage were made should be shared as a part of the discussion of methods.

Thinking about how the review will be organized is another important part of the preplanning. Again, as with coverage, it is too early to make a definitive decision but knowledge that a review should have an organizational structure can guide the process as it unfolds and also help in the organization of the sources prior to any analysis. The taxonomy suggests three categories for structure:

historical or chronological; conceptual or thematic; and methodological. Nearly all literature reviews are structured around major themes or concepts that emerge as the literature is examined and reviewed. Some reviews then use a chronological organization to discuss the literature within the major themes that have been identified and used to structure the review. During the review process, Bruce (1994) suggests identifying major categories and subcategories as early as possible knowing they can always be revised. She also advocates the use of concept maps as a way of identifying these themes or categories. The initial examination of the literature under consideration for the review may begin to reveal major concepts or themes.

As discussed above, the characteristic of goal is probably of secondary importance at this stage of planning because the goal for most reviews will be synthesis or integration, a defining characteristic of literature reviews. It is the work of integration or synthesis that results in new perspectives on the topic through knowledge construction by the reviewer (Montuori, 2005; Torraco, 2005). The taxonomy includes three major categories for goal: integration, including generalization, conflict resolution, and bridging disparate bodies of literature; criticism in which each piece reviewed is examined using a rubric or predetermined set of criteria; and identification of central issues. The categories and subcategories for goal described in the taxonomy are certainly not exhaustive. Although the major goal of most reviews falls within the integration category, as a part of integration they may achieve other aims such as the identification of central issues, pointing out gaps in the literature, and so forth.

Perspective and audience, the other taxonomy characteristics, are important for free-standing reviews and should be considered in conjunction with potential publication outlets. Writers of review articles should take the time to familiarize themselves with potential journals prior to writing the review article to determine the major audience and the type of articles accepted. The audience is generally the readership of the journal to which a review is being submitted. Does the journal seem to appeal to a scholarly audience or does it serve practitioners? Perspective or point of view about the material reviewed can range from neutral to advocacy of a position. Before writing an espousal review, reviewers should become familiar with what is accepted practice for that journal and its audience. Some journals have sections that encourage submissions of pieces of this nature.

Using the taxonomy to examine freestanding published reviews has been a helpful exercise for novices struggling to develop their own reviews. Despite its age, "Mentors and Protégés: A Critical Review of the Literature," an article by Sharan Merriam (1983), has proven to be an excellent tool for this exercise. Merriam clearly describes her focus by telling readers that two types of literature were selected: that which "seriously analyzed or conceptualized the phenomenon of mentoring" (which would be theoretical using the taxonomy categories) and that which "presented the results of data-based research studies" (pp. 161-162). In addition, the article delineates how the literature for the review was retrieved and selected enabling readers to understand that the coverage was probably comprehensive with selective citation since criteria were established for the type of literature that would be included. Furthermore, a quick scan of the article

reveals that it is organized by themes found in the literature on mentoring. Finally, at the end of each thematic section, Merriam includes a summary or synthesis of the material covered and concludes the article with four overall criticisms of the mentoring literature, which further extend the synthesis work and highlight central issues. Another published review that has been useful for the exercise of applying the taxonomy is "Practical Training in Evaluation" by Michael Trevisan (2004). Trevisan focuses on practice-based literature related to teaching or training in evaluation. Because of how he frames the criteria for inclusion of articles, his coverage is exhaustive. Like Merriam, he very clearly describes what he is doing and how he located his sources.

In many free-standing reviews, the discussion of goals, focus, and coverage are included in a method section. Rocco, Stein, and Lee (2003) is a particularly good example of how this can be handled. In an article about writing integrative reviews, Torraco (2005) provides helpful suggestions about developing the methodology section of a review. By applying the taxonomy to published reviews, novices can see how they can adapt it to construct a methodology for their own review.

**Strategies for Identifying and Selecting Resources**

Whether the topic under development is new or one that is being continued or enlarged from previous work, some basic principles apply to the process of identifying and selecting resources for the review. One of the common pitfalls in finding information is overdependence on a single strategy. The Internet and Google have changed how information is located and accessed but relying solely on these sources is shortsighted. Multiple strategies including

database searching, personal contact, web searching, and even manually scanning contents of relevant journals should be used to locate materials for a review.  Any parameters established for the review in the categories of focus and coverage may also determine what strategies are used.   It may be helpful to think of categories of strategies:  (a) formal, such as those used to retrieve the published literature; (b) informal, involving personal contact with colleagues and other scholars working in the area of the review; and (c) secondary, using citation indexes, bibliographies, and bibliographic databases (Cooper 1998).

Materials in electronic research databases such as Academic Search Premier, PsycINFO, and Business Source Complete can be retrieved using a number of search strategies including key word, subject terms, author, title, date, and so forth.  Most research databases use what is known as a controlled vocabulary (subject terms) to index items.  For novices, the controlled vocabulary may be "indistinguishable" from the database itself; in other words, they do not recognize its existence and do not use it in retrieving materials, relying instead on searching using keywords. (Klaus 2000, p. 214). Subject terms used to index materials are a much more effective and efficient way to locate items than key words.  Information professionals such as reference librarians can help identify the relevant subject terms.  They are familiar with a number of research databases and the controlled vocabulary used to index items, understand how materials can best be retrieved, and can assist with developing effective search strategies. Most large libraries have virtual reference services that allow questions to be submitted electronically.

Pursuing a large number of contacts and actively gathering and receiving information from diverse sources will result in the most satisfactory search process (Palmer, 1991). The completed review should also include information about how the material was located. If sources other than electronic databases were used, that should be noted. Wanstreet (2006), for example, says that she consulted with two reference librarians as a part of the process for selecting potential journal sources for use in her review.

After locating potential sources for the review, the task of selecting the best sources begins. Again, the preliminary parameters established in the initial planning stages are helpful in this step. For example, if the focus of the review is to be on research studies, then only sources that report research will be selected for further consideration. Furthermore if the coverage is not going to be exhaustive, then some further winnowing can take place by scanning abstracts using criteria such as author, authority of the source, publication date or other knowledge about the topic. In some cases, the goal of the review will determine the selection criteria as in Smith (2008), mentioned earlier. Care should be taken not to eliminate foundational studies that are considered pivotal in the development of the topic. Such studies, sometimes referred to as seminal, may not appear in search results of electronic sources and may also need to be retrieved manually. Once a preliminary selection of materials is made, the scholarly analysis phase of the review process begins.

### SCHOLARLY ANALYSIS OF SELECTED SOURCES

Scholarly or critical analysis of the sources selected is the part of the review process that provides synthesis and constructs new knowledge. It results in a review

that is more than "mirroring" of what has been done previously (Lather 1999, p. 3). Failure of the reviewer to engage critically and systematically with the sources will likely result in a review that is little more than an annotated bibliography or listing of sources. Although analysis of sources can be a time consuming process, it results in high quality reviews that make significant contributions to the field's understanding of topic. Some suggestions on how to manage this process follow.

For novices, critical analysis may seem like a daunting task. They may feel that they cannot critique so called "expert" knowledge (Brookfield, 1993, p. 68 ) but with some practice and experience scholarly analysis can be achieved. To assist in the task of critical analysis, Brookfield (1993) poses a series of questions that may be helpful. The questions, which are designed for practitioners, give suggestions about critical analysis in areas such as methodology, communication, and experiential.

Before the material selected for review is read in detail and critically analyzed, sources should be scanned and sorted. At this stage, the work with the sources should serve to further familiarize the reviewer with the "data" selected. Then a method of tracking each piece of literature to be included should be developed. Bibliographic software programs such as EndNote or Biblioscape can be helpful for this purpose and many university libraries now provide access to RefWorks, a web-based program designed to help manage research projects. Word processing software can also be used for this purpose.

Once a system for tracking sources is in place, the next task is developing a systematic means of analyzing each source. One method that has proven effective is the chart method where each individual source is "charted" according to predetermined categories. Figures 1 and 2 provide examples of charts that can be used in analyzing

research studies (Figure 1) and theoretical literature (Figure 2). A completed chart is shown in Figure 3. The developer of this chart used a hybrid version of the research and theoretical charts to enable her to track both types of literature on the same chart.

Charts are only one method of analyzing sources. Another method suggested by the University of Toronto (http://www.utoronto.ca/writing/litrev.html) is a series of questions that the reviewer can ask about each source; the questions cover research, theoretical, and popular literature. The list expands the categories on the charts shown in Figures 1 and 2 to include questions about the relationship between the theoretical and research perspectives, structure of the argument, contribution to the understanding of the problem, author's research orientation, and so forth. The list is lengthy but using it can provide a thorough analysis of each source and the questions could be converted into a chart. Regardless of method selected for the analysis, the most important thing is to view each piece reviewed through the same lens.

| Citation Information | | | | | |
|---|---|---|---|---|---|
| Purpose (Has author formulated a problem or issue?) | | | | | |
| Subjects | | | | | |
| Methodology | | | | | |
| Design and Analysis | | | | | |
| Conclusions/Results | | | | | |
| Implications | | | | | |
| Weaknesses (could use Brookfield questions to assess) | | | | | |
| Strengths (could use Brookfield questions to assess) | | | | | |
| Other (e.g., has relevant literature been evaluated? Contribution?) | | | | | |

Figure 1.  Literature "Analysis" Chart for Research Articles

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|---|---|---|---|---|---|
| Citation Information | | | | | |
| Purpose (Has author formulated a problem or issue?) | | | | | |
| Theoretical framework (theorists cited) | | | | | |
| Conclusions | | | | | |
| Implications | | | | | |
| Weaknsses* (could use Brookfield questions to assess) | | | | | |
| Strengths* (could use Brookfield questions to assess) | | | | | |
| Other notes such as contribution to development of literature base | | | | | |

* Consider how author has formulated the problem or issue

Figure 2.  Literature "Analysis "Chart for Theoretical Articles

| Citation | Shapiro, J., Hollingshead, J. & Morrison, H. (2002). Primary Care resident, faculty, and patient views of barriers to cultural competence, and the skills needed to overcome them. *Medical Education*, 36, pp. 749-759. | Kripalani, S., Bussey-Jones, J., Katz, M.G. & Genao, I. (2006). A prescription for cultural competence in medical education. *Journal of General Internal Medicine*, 21, pp. 1116-1120. | Rosen, J., Spatz, E., Gaaserud, A., Abramovitch, H., Weinreb, B., Wenger, N., et al. (2004). A new approach to developing cross-cultural communication skills. *Medical Teacher*, 26(2) pp.126-132. | Derosa, N. & Kochurka, K. (2006). Implement culturally competent healthcare in your workplace. *Nursing Management*, 37(10), pp. 18-26 |
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| Purpose | Literature has very little info on perception of barriers to achieve culturally competent communication for residents, faculty and patients. Study aims to address this issue. | Not all cultural competence education is effective in improving attitudes and skills of health professions; authors propose elements to improve education | Most cross cultural training for medical students consists of lectures on topic during pre-clinical years rather than training in clinical years; purpose to give students awareness, attitude & knowledge + communication skills | To outline a 6-step approach to delivering culturally competent care to an increasingly diverse patient population |
| Subjects | Faculty & residents who come from socioeconomic & diverse backgrounds; patients who fall below federal poverty line | | 32 third year medical students from Ben Gurion University | |
| Methodology | Focus groups included: 5 faculty groups 3 resident groups, 2 patient groups
Questions revolved around perceptions of effective cross-cultural communication and what are the barriers to it. | | 1.5 day workshop included: intro to cross cultural medicine issues, video on using interpreters, intro of CHAT (Cultural and health-belief assessment tool), actors used- students do mock interviews with patients-4 each, students devise treatment & | |

|  |  |  | prevention plans for each patient |  |
| --- | --- | --- | --- | --- |
| Design/ Analysis | Initial debriefing session with facilitators to look for emerging themes; verbatim transcripts made, content analysis initially descriptive & then interpretive. |  | Students did self-evaluations at end of workshop; students surveyed before workshop & 6 wks following workshop to assess attitudes in cross cultural communication in 7 content areas, computed means for each pre/post survey |  |
| Theoretical framework |  | Gives general overview of 3 approaches to teaching cultural competency: knowledge-based, attitude-based, skills-based Mentions Berlin & Fowkes LEARN guidelines, Kleinman's questions, RISK framework, and diffusion of innovations theory | The author's evaluation survey was based on work of Kleinman and the revised Developmental Model of Ethnosensitivity by Borkan & Neher. | Includes Fowkes' LEARN guidelines; mentions Kleinman's questions; includes Narayan's elements of a cultural assessment; refers to preserve-accommodate-restructure framework-not clear which author this is |
| Conclusions/ Results | Residents more language-focused than faculty, patients defined competence in more generic terms than culture-specific; residents & patients more likely to use person-blame models when talking of barriers; all 3 groups focused on providers for solutions | Authors conclude by calling for a more active approach to cultural competence that is integrated across all levels of medical education. | Students showed a significant improvement in 5 of 8 areas measured. Authors deem workshops can be effective, feasible, interesting and entertaining way to hone cross cultural skills, though note mastering cross-cultural skills cannot be achieved in a single workshop | Respect for patients must include respect for their cultural beliefs, values, and practices |
| Implications | Need to realize many residents skeptic of cross cultural training, | An integrated approach to cultural competence | With increasing diversity of the population, medical schools | If you acknowledge the patient and family are the experts about their |

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| | suggests courses taught by physicians who are respected by residents and focus on generic skills of patient-centered communication | training is more likely to yield long term outcomes rather than isolated workshops. | must equip students with skills needed to practice in multi ethnic environment~the current depth of cross-cultural courses is insufficient and timing of courses (pre-clinical) sub-optimal~acquisition of cross-cultural skills is continuous process | cultural norms and see yourself as becoming, rather than being, culturally competent, you'll achieve the most effective outcomes possible in working w/ patients |
| Weaknesses | Excluded patients who couldn't speak English because no interpreters (authors do list this as limitation); only had 2 patient groups out of 10 total groups; had patient focus groups in clinic~ wonder about their comfort in this setting | Article describes current state of cultural competence education & its problems (lack of consensus on how to teach, limited outcome measures), but don't give information about their teaching experiences in the area; article would have been better if they included more examples of successful practices/programs | No background given on students (including ethnicity); did not discuss how many students attended until Results section; got poor survey response rate at end of workshop, should have been able to get >75% in my opinion | Authors could use more examples of best practices~to illustrate suggestions~very few are given; Authors state, "Six steps have been named that meet the cultural needs and expectations of patients.." It's not clear if they are the authors of these steps. Very few people are cited in the article. |
| Strengths | Gave good background details of participants; tried to get high percentage of residents/faculties from each site; questions used included; key points illustrated well; good details & analysis of focus group sessions given | Encourages use of educational methods that correspond to principles of adult learning; 69 references listed so obviously did a fairly good search of the literature; article easy to read~ gives clear ideas of how to improve culturally competent training | Points out that students attending workshops were doing rotations at hospital at same time~could have impacted survey results not related to workshop; authors speculate about areas that did not improve | Easy to read for layperson; key ideas/examples pulled out into boxes for quick referral; good examples given of differences in non-verbal communication and questions to ask in a cultural assessment |
| Other | Adversarial undercurrents in groups noted~ | Authors emphasize need for outcomes based research to | Authors note there is currently no standardized rating | |

| | suggest importance of compassion & humility in field | determine value of their strategies and others used in cc training | scale for defining essential components of an effective medical interview | |
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Figure 3.  Completed Literature Analysis "Hybrid" Chart (Troyer, 2007, used by permission.)

Charts developed in the analysis stage can be incorporated into the finished product.  Examples of published literature reviews that include analysis charts are Trevison (2004); Gould, Kelly, White, and Chidgey (2004); Smith (2008); and Wanstreet (2006).  Examining charts in published literature reviews can provide additional understanding about effective literature analysis.  Systematic analysis of literature sources does not replace careful reading, critique of methods used, an understanding of the theoretical underpinnings of the topic, and other factors that go into critical analysis but, without it, novices may find it difficult to achieve synthesis in the review.

## WRITING THE REVIEW

Once the literature is systematically analyzed, the review itself can be drafted. Following some suggestions for moving from the literature analysis stage to the writing itself, the section concludes with some elements of a quality review.

### From Analysis to Writing

How to turn the material from the analysis into a seamless review may seem like an overwhelming task.  The challenge is to turn notes on individual sources into a review organized in a way that provides insights into the topic under review.  The following adapted from Merriam and Simpson (1995, p. 43) and Hart (1998, p. 14) can be helpful

in converting the information from the analysis into a narrative review and can be used in reviewing and organizing the analysis material.

- What are the major theories related to the topic?
- Who are the major contributors to the development of the topic and what is significant about their work?
- Are there identifiable periods in which significant work was done?
- Have there been major points of departure from the conventional wisdom on the topic and if so, when did these occur?
- Has the topic been politicized in the literature and if so, how?
- Does a structure and organization for the topic emerge from the literature reviewed?
- Can differing points of view about the topic be identified?
- What current research is being conducted on the topic?
- What is unique or significant about the literature being reviewed?

Once the drafting of the review begins, the focus should be on the literature, not on the topic. After the introduction and discussion of methods or strategies used in developing the review, the focus needs to shift to the literature and how the topic is treated in the literature under review. It is not uncommon for novices to forget this and veer off into discussing the topic rather than the literature. Phrases such as "according to the literature...," "the literature under review...," "the literature selected for analysis..." help cue the reader that the focus is on the literature and how the topic is treated in the literature as well as help focus novice reviewers on the literature.

The following lead sentence from a review paper is a good example of keeping the major focus on the literature while also including information about the topic: "In the literature selected for this analysis, the topic of beginning teacher needs is treated such that teacher retention and effectiveness are tied to opportunities for professional collaboration and accountability. While these are common characteristics of the articles evaluated, the authors approach the topic in various ways" (Narishkin, 2005, p. 1). The review article by Merriam (1983) mentioned earlier also contains many good examples of how this focus can be maintained.

Again, in the summary or concluding section of the review, any observations made should be derived from the analysis of the literature, not the topic. Here comments can address questions such as "What is missing?"; "Where are any strengths and weaknesses?"; "What gaps are there in research?" and "What comments or critique can be made about the body of literature reviewed?" If the review is being conducted as part of a larger study, this section should include comments about how the literature reviewed supports the need for the proposed study.

**Assessing the Quality of a Review**

What constitutes a quality literature review? Discussions of criteria for judging reviews are included in Boote and Penny (2005), Hart (1999) and Cooper (1984). How the review is organized is an important quality criterion. Well organized reviews provide reader cues (e.g., "the limited empirical literature being reviewed revealed...") and give an indication of what literature is covered (e.g., research outcomes, theoretical, date parameters, etc.). The organization stems from the literature under review and a rationale is provided for coverage, organizational scheme, and other elements of the

methodology. The review contains strong lead sentences or organizing paragraphs and summaries of the literature

Also important is writing style. The review should be written in a clear and coherent style that avoids the use of jargon and it should follow the scholarly conventions of its intended audience. If appropriate, the review should reflect the writer's voice. Citations should be used appropriately. Any claims made should be substantiated by the literature and any conclusions drawn should be based on evidence from the literature reviewed.

Finally, a review should have internal consistency in terms of what it intends to do. Do the elements such as goal, type of literature included, and coverage of that literature form a logical whole? And, does the review address the criteria established in the methodology section or introduction? That is, does the reviewer do what he/she set out to do? (Cooper, 1984).

## CONCLUSION

This chapter has focused on the process for writing a literature review. The stages presented here are meant to demonstrate that some order or logic can be brought to the literature review process but developing a literature review is not a linear process. The process itself moves back and forth among the various stages and should include reflection at each stage, always asking questions about the selected approach. Finally, developing a literature review is both an art and a science. The chapter has focused primarily on the science or instrumental side by presenting a systematic way of thinking about how a review is constructed and suggesting strategies that can be used in its development. Developing a quality literature review, however, demands artistry at all stages, including how decisions are made about the overall goals, focus, and coverage for

the review; how search strategies are developed and sources located and selected;  how the material is analyzed; and finally how the review itself is presented.  Creativity at each of these stages will result in a higher quality review.

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