Writing Integrative Literature Reviews: Guidelines and Examples

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The integrative literature review is a distinctive form of research that generates new knowledge about the topic reviewed. Little guidance is available on how to write an integrative literature review. This article discusses how to organize and write an integrative literature review and cites examples of published integrative literature reviews that illustrate how this type of research has made substantive contributions to the knowledge base of human resource development.

Keywords: *literature review; integrative literature review; integrative research review: synthesis*

The *integrative literature review* is a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the topic are generated. Several integrative literature reviews have made seminal contributions to our knowledge of human resource development (HRD) and related fields; some are cited in this article. Recognizing the value of work that reviews, critiques, and synthesizes knowledge from the literature on topics of interest to the field, *Human Resource Development Review* (*HRDR*) has published at least one integrative literature review in every issue since the journal began almost 4 years ago. The editors of *HRDR* continue to seek well-written review articles that yield provocative, new perspectives on key issues in the field.

This article discusses the distinctive characteristics of this form of research. In addition, we hope to counter the misconception that integrative literature reviews are less rigorous or easier to write than other types of research articles. On the contrary, the integrative literature review is a sophisticated form of research that requires a great deal of research skill and insight. Authors of review articles are expected to identify an appropriate topic or issue for the review, justify why a literature review is the appropriate means of addressing the topic or problem, search and retrieve the appro-

priate literature(s), analyze and critique the literature, and create new understandings of the topic through one or more forms of synthesis. This article offers guidelines for writing integrative literature reviews and cites examples of exemplary review articles. After reviewing the purposes best served by literature reviews, the article discusses how to organize and write an integrative literature review that offers valuable new perspectives on an issue. Examples of published integrative literature reviews are provided that illustrate how this type of research has made substantive contributions to the knowledge base of HRD.

Before Writing—Why Write a Review Article?

Most integrative literature reviews are intended to address two general kinds of topics—mature topics or new, emerging topics. Because HRD deals with topics and issues that vary along an age continuum from old to new, all integrative literature reviews do not fit neatly into "old" or "new" categories. Nonetheless, we discuss both kinds of literature reviews, because features of a review article differ depending on the maturity of the topic it addresses.

As a topic matures and the size of its literature grows, there is a corresponding growth and development in the knowledge base of the topic. An integrative literature review of a mature topic addresses the need for a review, critique, and the potential reconceptualization of the expanding and more diversified knowledge base of the topic as it continues to develop. Several examples of this kind of literature review exist. Ford and Weissbein (1997) conducted a review of the literature on training transfer that synthesized existing research, including a previous review of this topic. Other integrative literature reviews of well-developed topics include reviews of organization development (Porras & Robertson, 1987; Weick & Quinn, 1999), mentoring (D'Abate, Eddy, & Tannenbaum, 2003), work design (Torraco, 2005), teams (Guzzo & Dickson, 1996), and cross-cultural research on HRD (Hansen & Brooks, 1994). Each of these literature reviews resulted in fresh, new understandings and, in most cases, significant reconceptualizations of the mature topics reviewed.

A second kind of integrative literature review addresses new or emerging topics that would benefit from a holistic conceptualization and synthesis of the literature to date. Because these topics are relatively new and have not yet undergone a comprehensive review of the literature, the review is more likely to lead to an initial or preliminary conceptualization of the topic (i.e., a new model or framework) rather than a reconceptualization of previous models. Bailey and Kurland's (2002) review of research on telework, an increasingly prevalent form of work, provides a timely contribution to our knowledge of this recent phenomenon. The authors examined who partici-

pates in telework, why they do, the implications of the spread of telework, and a research agenda for generating new knowledge about telework and its consequences. Other integrative literature reviews of new or emerging topics include reviews of contingent work and new employment relationships (Kalleberg, 2000), knowledge work (Brown & Duguid, 2000; Cook, Scott, & Brown, 1999; Spender & Grant, 1996), work-family balance (Edwards & Rothbard, 2000), and new forms of organizations (Liker, Haddad & Karlin, 1999; Smith, 1997). Whether the literature review addresses a mature or emerging topic, readers expect to see the knowledge from the literature synthesized into a model or conceptual framework that offers a new perspective on the topic. This expectation that literature reviews provide new frameworks or ways of thinking about an issue is consistent with Whetten's (1989) observation that "the mission of a theory-development journal is to challenge and extend existing knowledge, not simply to rewrite it" (p. 491).

Why Write a Literature Review?

Early in the article, the author should explain why a literature review is the research method of choice to address the problem or issue. The need for the review article should be supported by discussing the importance of the problem or topic to be examined and by justifying why an integrative literature review is an appropriate way to address the problem. The notion of a *need* for a literature review of a topic derives from a condition or situation in which something is required or wanted. On the other hand, the author may be *interested* in learning more about phenomenon *x*, and thus, undertake a review of the literature on this phenomenon. Yet, does the literature review make a significant, value-added contribution to new thinking in the field? This conception of *need* arises from the value that the literature review contributes to the discipline and its constituents (Torraco, 2004). Included in eight criteria for evaluating a theoretical contribution, Patterson (1986) characterized *importance* as being "applicable to more than a limited, restricted situation" and "having relevance to life or to real behavior" (p. xx). This corresponds to journal editor Bem's (1995) warning that authors who wish to publish review articles in *Psychological Bulletin* should avoid narrowly conceived topics as the basis for writing review articles.

In some cases an omission or deficiency in existing literature on an issue is suggested by a discrepancy between the literature and observations about the issue that are not addressed in the literature. In this case, the omission or deficiency is confirmed in the literature review section of a larger empirical or theoretical study that addresses the issue. Thus, a new study that examines the problem specifically rather than a literature review alone may be the best approach. In addition to writing integrative literature reviews on mature topics or new topics for the reasons given above, literature reviews

are also appropriate when contradictory evidence appears, when there is change in a trend or direction of a phenomenon and how it is reported, and when research emerges in different fields. Try to hook your reader early and motivate them to read on by arguing for the importance or need for your literature review. Readers who may not share the intensity of your interest in the topic may be persuaded of its significance by a compelling argument that your review article addresses an important need for the HRD discipline and its constituents.

Organizing an Integrative Literature Review

Authors of review articles do not have the benefit of following a well-established format to organize their articles because there is no standardized format for review articles as there is for empirical work. Referring to the format of review articles, the *Publication Manual* (American Psychological Association, 2001) states only that "the components of review articles, unlike the sections of reports of empirical studies, are arranged by relationship rather than by chronology" (p. 5). Consequently, the author of a review article must begin with a topic in need of review and a broad conception of what is known about the topic and potential areas where new knowledge may be needed.

Conceptual Structuring of the Review

The organization of the review starts with a coherent conceptual structuring of the topic by the author. The author should begin conceptually structuring the topic early in his/her work because this is central to organizing the article. Beginning the article without a conceptual structuring of the topic creates difficulties later. As the review article takes shape, subsequent alteration of the conceptual structure of the topic requires repeated modifications to the rest of the article, which becomes increasingly difficult as more of the article is written. For most integrative literature reviews, conceptual structuring of the topic requires the author to adopt a guiding theory, a set of competing models, or a point of view about the topic. Wrzesniewski and Dutton's (2001) work on job crafting provides an example of their use of a guiding theory to organize their literature review and conceptual model on job crafting. The authors defined job crafting as the physical and psychological changes individuals make in the task or relational boundaries of their work. The guiding theory that organized Wrzesniewski and Dutton's work is based on social-information processing and assumes that employees can actively change their jobs. This theoretical orientation differs from existing theory on job design (Hackman & Oldham, 1980) and sociotechnical systems theory (Emery & Trist, 1969) by deemphasizing the technical and environment requirements of the job setting. The authors used their guiding the-

ory of employees as the primary shapers of their jobs to effectively structure the article by showing how the authors' assumptions, literature review, and critique of the literature supported their new conceptual model of job crafting.

Another approach for conceptually structuring the review is to use a set of competing models. Bem (1995) cited Nolen-Hoeksema and Girgus's (1994) review article on gender differences in depression during adolescence as a good illustration of the use of competing models to organize a review article. Bem (1995) described the authors' use of competing models to organize their literature review as follows:

> The relevant literature consists primarily of studies examining specific variables correlated with depression, a hodgepodge of findings that less creative authors might have been tempted to organize chronologically or alphabetically. The authors, however, organized the studies in terms of whether they supported one of three developmental models: (a) the causes of depression are the same for the two sexes, but these causes are more prevalent in girls than in boys in early adolescence; (b) the causes of depression are different for the two sexes, and the causes of girls' depression become more prevalent in early adolescence; or (c) girls are more likely than boys to carry risk factors for depression before early adolescence, but these lead to depression only in the face of challenges that increase in prevalence in early adolescence. With this guiding structure, the findings fell into a recognizable pattern supporting the last model. (p. 174)

Whether a guiding theory, a set of competing models, or another approach is used, authors should give serious attention to a coherent conceptual structuring of the topic to organize the review article.

Describing How the Review Was Conducted

Although an integrative literature review article can be organized in various ways, the author is still expected to follow accepted conventions for reporting how the study was conducted. This relates to the methodology of writing an integrative literature review—how the literature was identified, analyzed, synthesized, and reported by the author. First, the author's strategy for selecting the literature to be included in the study should be described. The literature is the data of an integrative literature review. Learning about the literature and how it was obtained, including the keywords and databases used, is of particular interest to readers, who may wonder if the literature they are familiar with was examined. Authors should ensure that recently published literature and older literature are both systematically searched. Authors can examine older literature by reviewing the citations from the articles obtained through the search of selected databases. Recently published literature is examined by using the Social Science Citation Index (SSCI) or the Web of Science.[1] The criteria used for retaining or discarding the literature yielded by the literature searches should also be

stated. Authors should consider using a table, endnote, or appendix to list the sources of literature reviewed in the study.

Various aspects of the literature can be reviewed with more or less scrutiny by the author depending on the purpose and topic of the review. Authors may do a complete reading of each piece of literature, analyze methods and findings only, or conduct a staged review (i.e., an initial review of abstracts, then an in-depth review) to analyze the literature. Webster and Watson (2002) illustrated the use of a concept matrix that lists the key concepts of a topic along one axis of the matrix and the articles in which they were addressed along the other axis. Entries in the cells of the matrix show more frequently used concepts and their sources in the literature. (Also see Salipante, Notz, and Bigelow [1982] for a discussion of the use of concept matrices in literature reviews.) The description of how the literature was reviewed by the author should be followed by a discussion of how the main ideas and themes from the literature were identified and categorized. Steps taken to verify the validity or authenticity of key ideas and themes that emerged from the analysis should be described, especially for literature reviews of new topics or phenomena for which accepted models and frameworks do not yet exist.

In general, the review article should be written so that if other researchers attempted to replicate the study, sufficient information would be available to do so. The research methods used to conduct the study should be made as transparent as possible to the reader. As with other types of research, readers of an integrative literature review expect to see how the review process was used to develop and present the synthesis and findings of the study.

Writing an Integrative Literature Review

The best literature reviews examine the literature with a particular lens defined by the article's objectives. Rarely do reviews examine all aspects of previous research. Rather, this lens points the author (and reader) to specific aspects of previous research that are critically examined and evaluated. As a result, the review "tells a story" by critically analyzing the literature and arriving at specific conclusions about it.

Critical Analysis

Critical analysis of literature involves carefully examining the main ideas and relationships of an issue and providing a critique of existing literature. The critique is the critical evaluation of how well the literature represents the issue. Critical analysis often requires the author first to deconstruct a topic into its basic elements. These may include the history and origins of the topic, its main concepts, the key relationships through which the concepts interact, research methods, applications of the topic, and so on. Care-

ful analysis often exposes knowledge that may be taken for granted or hidden by years of intervening research. It allows the author to reconstruct, conceptually, the topic for a clearer understanding of it and to assess how well the topic is represented in the literature.

This lays the foundation for *critique*, the product of critical analysis. Critique identifies the strengths and key contributions of the literature as well as any deficiencies, omissions, inaccuracies, and other problematic aspects of the literature. The critique should identify aspects of a phenomenon that are missing, incomplete, or poorly represented in the literature, as well as inconsistencies among published perspectives on the topic. It also identifies knowledge that should be created or improved in light of recent developments on the topic. Thus, by highlighting the strengths and identifying the deficiencies in the existing literature, critical analysis is a necessary step toward improving the knowledge base.

Synthesizing New Knowledge on the Topic

With the strengths and deficiencies of a body of literature exposed, authors can take advantage of the breadth and depth of their insights to create a better understanding of the topic through synthesis. Synthesis integrates existing ideas with new ideas to create a new formulation of the topic or issue. Synthesizing the literature means that the review weaves the streams of research together to focus on core issues rather than merely reporting previous literature. Synthesis is not a data dump. It is a creative activity that produces a new model, conceptual framework, or other unique conception informed by the author's intimate knowledge of the topic. The result of a comprehensive synthesis of literature is that new knowledge or perspective is created despite the fact that the review summarizes previous research.

New ideas from the literature review can be synthesized in several ways. The most common forms of synthesis include a research agenda, a taxonomy (Doty & Glick, 1994), an alternative model or conceptual framework, and metatheory (Ritzer, 1992). A metatheory explains or elaborates on a body of theory. Synthesis of a body of literature can provide the basis for developing metatheory across theoretical domains. For example, systems theory as a metatheory for HRD is examined in a monograph edited by Gradous (1989) and a metatheory of knowledge is presented by Wilson (1998). Two other forms of synthesis, a new conceptual model and a research agenda, are commonly used together to synthesize the literature in review articles. The review and critique of existing literature culminates in a new model or framework for the topic that because it posits new relationships and perspectives on the topic, yield new questions or an agenda for further research (see Table 1 for a summary of these four forms of synthesis).

TABLE 1:   Four Forms of Synthesis from Integrative Literature Reviews

Four Forms of Synthesis from Integrative Literature Reviews

A *research agenda* that flows logically from the critical analysis of the literature. The research agenda should pose provocative questions (or propositions) that give direction for future research.

A *taxonomy or other conceptual classification of constructs* is often developed as a means to classify previous research. They, in turn, lay the foundation for new theorizing (Doty & Glick, 1994).

Alternative models or conceptual frameworks—new ways of thinking about the topic addressed by the integrative review. Alternative models or conceptions proposed by the author should be derived directly from the critical analysis and synthesis provided.

Metatheory—The integration and synthesis of a literature review can provide the basis for developing metatheory across theoretical domains through future research.

In summary, critical analysis and synthesis work in tandem as the means through which literature (the data) is used to generate knowledge about a topic. New knowledge about previous research is created through critical analysis; synthesis builds on this to create new perspectives on the topic as a whole.

The Importance of Logic and Conceptual Reasoning

In theoretical research, data analysis is replaced by logic and clear conceptual reasoning as the basis for arguments and explanations (Whetten, 1989). Clear logic or conceptual reasoning is the most important feature of the explanation of a model, conceptual framework, or theory. Conceptual reasoning must always be part of any justification of a concept or model because it represents "the theoretical glue that welds the model together" (Whetten, 1989, p. 491). Regardless of the form of synthesis used, a description of how it was developed from the literature review (i.e., the author's conceptual reasoning) should be provided. Presenting a framework or model without a description of the origin of its constructs, their interrelationships, and the conceptual reasoning used to build it is akin to presenting the results and conclusions of an empirical study without discussing data collection and analysis. As with other types of research, readers of a literature review expect to see how the logic and conceptual reasoning of the research process was used to develop the proposed framework or model. The discussion should also show how the framework or model helps to overcome the omissions, deficiencies, or other problematic aspects identified in the literature. The author's logic and conceptual reasoning allow the reader to follow the connections among the research problem (e.g., deficiencies in

the literature), the critique of the literature, and the theoretical outcome (e.g., a new conceptual model).

The Review Article As a Catalyst for Further Research

The integrative literature review plays an important role in stimulating further research on the topic. The *provocativeness* or *fruitfulness* of an integrative literature review is its capacity to generate new ideas and directions for the field. This criterion asks, will the contribution likely stimulate further inquiry that leads to important, new knowledge in the field? A review article is expected to lay a foundation for future research or theory. When the literature review reconceptualizes an issue, the conceptual model inevitably presents new relationships and perspectives that have not been fully explored. In addition, other deficiencies or unresolved issues will have surfaced in the author's critique of the literature. These needs for additional research on the topic should be made explicit by formulating questions for further research or a research agenda. Presenting provocative research questions that stimulate interest among other researchers is an effective way to conclude the review article. A checklist for writing an integrative literature review that summarizes these guidelines is provided in Table 2.

Clear Writing Style

Finally, we offer a few observations about the clarity and tone of the author's writing. It is difficult to overstate how much clear, understandable writing adds to the quality of *any* article. Clarity of writing is at the same level of importance as accuracy in scientific writing. Like all other published research, integrative literature review articles should be written simply and directly. Lengthy discussions should be avoided. Authors of integrative literature reviews are encouraged to follow Strunk and White's (1979) famous dictum, "omit needless words." Because part of their research effort is devoted to the criticism of existing literature, authors should also be conscious of the tone of their writing. Avoid being overly critical of existing research and making personal aspersions. Deficiencies in a body of literature will be evident to the reader if they are clearly and accurately reported. Authors are encouraged to convey a constructive and developmental tone to readers, many of whom are authors themselves. We are reminded of the valuable lessons we all learn from our past efforts. Even the best review article is only a singular contribution along a journey for greater knowledge.

This article has presented guidelines and examples for writing integrative literature reviews. Integrative literature reviews are a sophisticated form of research that offers much potential for changing the way we think about our work. We hope these guidelines and examples are helpful and that they result in the publication of more bold, new perspectives on HRD.

TABLE 2:   A Checklist for Writing an Integrative Literature Review

Before Writing an Integrative Literature Review

(a) What type of review article will be written (i.e., review of a new topic or a mature topic?). Is an integrative literature review the most appropriate way to address the research problem?

(b) Is there a *need* for the integrative literature review? Will the review article make a significant, value-added contribution to new thinking in the field?

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(c) Is the review article organized around a coherent conceptual structuring of the topic (e.g., a guiding theory, a set of competing models)?

(d) Are the methods for conducting the literature review sufficiently described? How was literature selected? What keywords and procedures were used to search the literature? What databases were used? What criteria were used for retaining or discarding the literature? How was the literature reviewed (e.g., complete reading of each piece of literature, reading of abstracts only, a staged review)? How were the main ideas and themes from the literature identified and analyzed?

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(e) Does the article critically analyze existing literature on the topic (i.e., is a critique provided)?

(f) Does the article synthesize knowledge from the literature into a significant, value-added contribution to new knowledge on the topic?

(g) What forms of synthesis are used to stimulate further research on the topic? A research agenda (research questions or propositions), a taxonomy (or other conceptual classification of constructs), an alternative model or conceptual framework, or metatheory (theory that transcends the topic and bridges theoretical domains).

(h) Does the article describe the logic and conceptual reasoning used by the author to synthesize the model or framework from the review and critique of the literature?

(i) Are provocative questions for further research presented to capture the interest of scholars?

Note

1. The Web of Science is an electronic version of the Social Science Citation Index that can be accessed at http://isiknowledge.com/. The use of this service requires a subscription.

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