KEY ELEMENTS FOR A DOCTORAL ANNOTATED BIBLIOGRAPHY

John Bryan, Grand Canyon University
Donna Graham, Grand Canyon University

INTRODUCTION

The purpose of this article is to present an overview of why annotated bibliographies are needed in higher education, especially in doctoral education programs. The necessity for emerging scholars to build an annotated bibliography is paramount to the development of their research study. However, there are numerous types of annotated bibliographies. This article will discuss the different types of annotations and which format best facilitates the development of a dissertation.

An annotated bibliography is a list of references supplemented with an analysis of the content of the source to reflect the utility of that source for a specific purpose (Capella University Writing Center, 2008; Stacks, Karper, Bisignani, & Brizee, 2018). The analysis can be focused notes, facts, or a critique of the quality or efficacy of the source. The reference information should include enough information that the reader could locate the source.

Sources in an annotated bibliography should be listed alphabetically by author surname. Annotations are often 150 to 300 words, depending on the purpose, with the sources focused on a specific theme or topic (Engle, 2018; Nastachowski, 2016; University Writing Center, 2018). Similar to literature reviews in articles, theses, or dissertations, longer annotated bibliographies may benefit from grouping by category or sub-theme, which could include major headings for those categories.

The purpose of the annotations always remains the same. An annotated bibliography develops, supports, and provides argumentation for developing a thesis. However, the annotated bibliography at the doctoral level is often used to prepare for writing a literature review and developing a research design as part of a dissertation. In this article, we present the need for doctoral annotations to be analytical in design, in order to facilitate dissertation writing.

ANNOTATIONS IN HIGHER EDUCATION

A bachelor's degree provides foundational knowledge of broad and specific topical areas (U.S. Department of Education, 2008a). A bachelor's-level annotated bibliography may gather foundational information from reviewed articles, books, and other sources. In some respects, the bachelor's-level annotated bibliography is like a collection of brief book reports that describe what article, book, or other source contributed to a discussion of the theme. Annotation bibliographies at the undergraduate level should relate to a specific topic. The annotations should explain how the reviewed source relates to the topic. Karakey (2012) noted that, at a minimum, an annotated bibliography should identify the thesis and main claims or arguments of the source along with the relevance of the source to the topic of the annotated bibliography.

A master's degree provides knowledge of broad and specific topical areas, often for application, and may be classified as professional or research-based degrees (U.S. Department of Education, 2008b). The master's-level annotated bibliography typically gathers foundational information from reviewed articles, books, and other sources, including or adding relevant nuances for application. Master's-level annotations build on bachelor's-level annotations. They often include foundational theories, models, or concepts discussed in the source and relevant topical background to demonstrate scope of knowledge of the topic (Torpey & Terrell, 2015).

A doctoral dissertation adds to the academic body of knowledge, including empirical research and foundational theories, models, or concepts, reflecting broad and specific topical areas and, therefore, has its basis in research (U.S. Department of Education, 2008c). Rather than capturing what is already known about a subject, the doctoral focus is on becoming a researcher and learning how to contribute to the body of knowledge (Xifra & Castillo, 2006). A doctoral-level annotated bibliography differs from an undergraduate and graduate annotated bibliography in that the

annotation at this level includes elements of the research methodology, design, and foundational literature. Typically, a doctoral degree annotation should include sample size and strategy, assumptions and limitations, and opportunities for future research. Stacks et al. (2018) observed that annotated bibliographies should reflect critical reading to inform the scholar about a topic in preparation for a research study and should discuss the purpose of the study, the findings, the reliability, and any bias and should clarify how the source informs your study of the topic.

TYPES OF ANNOTATION

There are at least two major types of annotated bibliographies: descriptive and analytical (UMUCL, 2019). A descriptive annotation, sometimes referred to as a summative annotation, provides an overview or summary of the source. Descriptive annotations do not analyze the findings of the content. However, they should describe the methodology and design. These types of annotations may be stand-alone entries, or they may be comparative, referencing the other entries to give a total picture of how different articles on the topic are in conversation with each other.

An analytical annotation—also referred to as evaluative annotation—summarizes the content, as well as analyzes the findings of the research. The author should present a narrative that includes the quality of the source and the argumentative position of the researcher relative to others in the field. Length of annotations can also vary, from approximately 150-word paragraph to one- or two-page annotations, depending on the purpose. Doctoral level annotations typically are longer entries, given the depth of the annotation and analysis.

ANNOTATION FORMAT

Descriptive annotations often include three paragraphs, one for each summary element; analytical annotations are longer, depending on the purpose of the evaluation. Each annotation is for one source and should interpret the article within the theme or context. Longer bibliographies may benefit from a reference list to provide a concise index of the annotated sources, which may be useful for building a reading list in preparation for a thesis or dissertation.

In a descriptive annotated bibliography, the annotation for each source should begin with a summary of the context and the key points of that specific source. The summary may include the source's method and results, but not the argument or evidence. The topic, method, design, foundational theory, model, or concept, and the conclusions of the study are included in this section. The summary should resemble the abstract of a source, although briefer, and should be written in past tense.

CRITIQUE OF ANNOTATIONS

The critique of each source should identify the strengths and weaknesses of the study, including any deficiencies or areas that need improvement. The critique may include the significance of the research questions, how the study added to the body of knowledge, what remained unknown, and the limitations, assumptions, and sample size and strategy. The more details included in the annotation, the closer the descriptive annotation gets to an analytical annotation. The concluding paragraph of a descriptive annotation may provide a discussion of how the findings can and cannot be applicable to a proposed empirical study or the utility of the annotated source to future discussion or research.

Analytical annotated bibliographies may include more detail as appropriate to the evaluation's purpose. When the evaluation is to prepare for a dissertation or thesis, the detail might include elements of the design, including strengths and weaknesses thereof. The evaluation may also include more detail of the findings, recommendations, and limitations that could point to opportunities for future research. The evaluation should also include a list of key themes discussed with the source and instruments or sources of data used in the annotated research article.

DISCUSSION OF ANNOTATED BIBLIOGRAPHIES ON ACADEMIC WEBSITES

A Google search was conducted of university websites that indicated general instructions for annotated bibliographies in an academic context. Of 20 university website discussions on annotated bibliographies, all presented that there were three or four different types of annotations, and all sites called them by different names. Most discussions included a recommended length of 150 words. Word guidelines are useful for guarding against rambling, unguided annotations; however, the length of each annotation may properly depend on

the purpose of the bibliography. Interestingly, none of the reviewed discussions indicated that purpose matters and purposes vary.

The Kansas University Writing Center (Kansas University, 2017) noted that an annotated bibliography provides a list of selected scholarly sources with relevant notes on a chosen topic. Each discussed source in an annotated bibliography includes full bibliographical information, formatted as in a reference list, and commentary on each source ranging from 2-10 sentences to several paragraphs in length. In a descriptive annotation, the annotation summarizes the source and briefly explains how the author addressed the topic and what the findings were. An evaluative annotation adds to the descriptive information an evaluation of the quality of the information, including limitations to the study and an assessment of relevant detail regarding the design and foundation or background of the study. At the University of New England (n.d.), an annotated bibliography seems a hybrid of the two Kansas University formats, including the focus or purpose of the source, a summary of the foundational theory or conceptual framework, and the findings or argument. At the University of New England, the annotation includes the significance of the study, the research methods and designs, the findings, the limitations, and opportunities for future research.

LITERATURE SYNTHESIS FOR DISSERTATIONS

A doctoral dissertation is a unique form of research and writing. It includes not only the results and conclusions emerging from empirical research, but it also provides a reflection on how the study, proposed and completed, fits within the body of academic scholarship. Walsh and Downe (2005) discussed meta-synthesis as a qualitative research design. Piccoli and Ives (2005) performed a systematic review of the literature. Danna and Griffin (1999) presented a framework for reviewing the literature in which themes contribute to the body of knowledge related a topic, and the current state of the literature has consequences, both what is and is not known about that topic. What is and is not known about a topic or a theme changes over time, and each item of research has a specific context.

According to Boote and Beile (2005), synthesis of the literature requires a horizontal view across the literature, rather than a vertical, or sequential, examination of sources to discuss the literature, rather than its individual components (Boote & Belle, 2005). Thistlethwaite, Moran, and the World Health Organization (2010) alluded to a table used to capture relevant data for synthesizing 73 articles. The synthesis compared and contrasted definitions of terms, to theories, methods, and outcomes. A synthesis can also provide insight into the context for the reviewed study.

Synthesis of the literature is not simply for the literature review section of an empirical article or chapter of a dissertation. A scholar synthesizes the literature to determine a research-worthy topic, often based on an identified gap in the literature or explicitly-expressed need for a study. From the gap or need may come a problem statement. The problem statement implies a research methodology and design; the problem statement also leads to one or more research questions or pairs of hypotheses. The research questions and hypotheses imply the sources of data and the appropriate data analysis. Everything, however, aligns back to the problem statement and emerges directly or indirectly from the reviewed and synthesized literature.

ANNOTATED BIBLIOGRAPHIES – A PROPOSED APPLICATION FOR DISSERTATIONS

A dissertation has a specific purpose. A dissertation adds to the academic body of knowledge. Doing so requires demonstration of the current state of the body of knowledge and substantiation of the design for the current study. Demonstrating an understanding of the body of knowledge requires synthesis of the historical and recent literature around themes. Synthesis of the literature requires an ability to look across the literature for themes, similarities, and differences. A summative annotated bibliography does not facilitate such a broad view across relevant scholarly sources.

Only an evaluative annotated bibliography enables the appropriate synthesis of the literature. The nature of the dissertation requires certain content within the annotations. As Table 1 above shows, the majority of empirical articles and dissertations contain 11 elements. These empirical articles and dissertations were reviewed based on a convenience sample of dissertations in ProQuest from 13 traditional and online universities. It seems reasonable to mention, if not discuss evaluatively, those 11 elements in an annotated bibliography.

Table 1. Summary of content of selected 2016 and 2017 empirical articles and dissertations.

		Articles	Dissertations
	N	32	45
Average	References	54.6	154.3
	Cited by	8.8	0.18
% Containing	Methodology	100%	100%
	Design	100%	87%
	Foundational Theory, Concept, or Model	94%	96%
	Literature Review Themes	67%	89%
	Variables or Key Concepts	100%	89%
	Data Source	94%	96%
	Sample and Sampling Design	85%	76%
	Data Analysis	88%	84%
	What was made known?	91%	89%
	What emerged unknown?	70%	78%
	Limitations	52%	49%

A dissertation provides a review of the historical and current literature relevant to the topic. The dissertation provides justification for the proposed study as contributing to the body of knowledge. The dissertation also indicates context for the chosen methodology, design, and sources of data from the precedent studies.

The dissertation, then, requires a review across the literature, perhaps organized thematically. A vertically-organized annotated bibliography does not provide the necessary visibility across the examined body of knowledge. However, a tabular view of the literature provides visibility across the literature. By looking across the literature, the researcher can examine relevant literature thematically. The cross-literature view can examine, for example, similar or different methodologies or designs, samples, instrumentation or sources of data, or identify assumptions or limitations that may point to opportunities for future research. Comparing and contrasting, or synthesizing, the literature is not possible looking at one article at a time.

In a dissertation, the emerging scholar would likely want to discuss how precedent empirical research points to a need for the proposed study, often identified as a gap in the academic body of knowledge. A qualitative methodology, looking at questions of how, why, and what associated with a phenomenon, would not generally identify the extent of possible relationships between variables or factors, which is the domain of a quantitative methodology. So, while a qualitative study might identify potential variables or factors, such a study would point to a possible need for a quantitative study to examine the nature or extent of relationships between those variables or factors. Discussing not only what a study made known, but how it made that known, could provide appropriate substantiation for the proposed methodology.

Like the substantiation of the proposed methodology, precedent designs, foundational theories, concepts, or models, literature review themes, samples and sampling strategies, sources of data, and data analysis can point the emerging scholar to elements of the proposed study that could be appropriate. In addition, what precedent research made known and identified as unknown can be useful in substantiating the asserted gap.

Identifying the foundational theories, concepts, and models and the themes in the literature reviewed in the dissertations or empirical articles can be useful in identifying the same elements to be discussed in the proposed dissertation. Being able to organize the literature reviewed for the dissertation by foundational element or theme can help the emerging scholar synthesize the relevant literature and improve the flow of the review of the literature.

A PROPOSED FORMAT FOR DATA COLLECTION

Table 2. Example of columns that may be included in a data collection tool for an annotated bibliography

Column heading	Description
APA Reference	The reference information for each source to be reviewed.
Year Published	The year of publication for the source
Source Type	The type of source. Examples: dissertation, book, text book, article.
References	The number of references included in the source's reference list.
Cited by	The number of times the source has been cited.
Lit Review	Flag this column if used in the Review of the Literature section.
Rel	Flag this column if used anywhere in the manuscript.
Methodology	The methodology used in the source: Qualitative, Quantitative or Mixed
Design	The design used in the study.
Foundation	The foundational theory, model, or concept used for the study May be >1
Literature Review Themes	The themes discussed in the source's review of the literature.
Variables or Phenomenon	The variables (a quantitative study) or the phenomenon (a qualitative study).
Data Source	How the authors collected their data, i.e., specific instruments, interviews, focus groups, unnamed questionnaires, observations, or archival data or documents.
Sample	The sample for the study and the method used to select the sample.
Data Analysis	How the authors analyzed their data.
What was made known?	The results of the study.
What emerged unknown?	A topic for future research, for example.
Assumptions	Assumptions were made in the study.
Limitations	The limitations and delimitations of the study.
Key Authors Cited	On whose prior research did the study build?
Utility to Proposed Study	How might this source be useful for your potential study?
Gap	Flag if the source substantiates your asserted gap in the academic literature.
Background	Flag if the source is historical background for your potential study.
Foundation	Flag if the source is foundational for your potential study or provides relevant context for that foundation.
Method	Flag if the source supports your choice of method for your potential study.
Design	Flag if the source supports your choice of design for your potential study.
Data Source	Flag of the source supports your proposed data source.
Data Collection	Flag if the source supports your proposed data collection.
Data Analysis	Flag if the source supports your proposed data analysis.
Ethics	Flag if the source provides relevant ethical considerations for your potential study
Themes 1-10:	Flag if the source provides content relevant to the indicated theme for your potential study.

Table 2 may be useful as a guide for the types of data a researcher might collect prior to drafting an annotated bibliography or literature review for an article or dissertation. Not all data will pertain to all possible purposes for annotating the reviewed literature. In addition, other data may apply that the table does not include.

SUMMARY

Knowing the purpose of the annotation is essential to compiling data from articles, books, and other sources for use in an annotated bibliography or literature review. If the purpose is to provide a summary, in the style of a book report, then less detail may be sufficient. However, if the purpose is eventually to substantiate the need for a proposed empirical study or to craft a literature review for an article or dissertation, then more detail will be useful. Therefore, it is

important to keep the end in mind prior to starting to read an annotate.

REFLECTIVE CRITIQUE

This article came about after reviewing over a thousand annotated bibliographies during more than two decades of combined experience in higher education at the doctoral level. As dissertation chairs and residency faculty, it became apparent to us that doctoral learners consistently missed the connection between the common descriptive annotated bibliography and their potential research. We noticed that annotations rarely reflected doctoral scholarship or the ability to read empirical research critically; on the contrary, they read like a grade school-level book report except on a more sophisticated topic. This disconnection seemed to result from the lack of clear expectations, in the form of assignment instructions and faculty interaction, for the preparation of annotated bibliography assignments. Students rarely saw that their own annotations could be useful in preparing the dissertation or any of its precursors.

In crafting this article, we provided an empirical basis for including the key elements of empirical study, within the annotations, to help students compile structured or unstructured data needed for their research. We find that these key points, and potentially others, provide the students entrusted to us with a useful framework to begin to read scholarly sources critically, as a scholar, a learner, and a developer of new knowledge, rather than as a consumer of knowledge. Without a clear framework, students seem to continue to read as they have always read.

As doctoral faculty, we cannot expect students to think and write critically unless they first learn to read critically. Our experience in two years of encouraging this critical reading framework in our content courses, in our mentoring as dissertation chairs, and in our service as residency faculty has been that students seem to be better prepared to read critically, think critically, and ultimately write critically through annotations more relevant to their proposed research. We are finding that students thus prepared are crafting better reviews of the literature and providing improved substantiation for their assertions, perhaps, at least in part, because they begin to read their own writing critically as a result of reading scholarly publications in that way.

References

Boote, D. N., & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. Educational Researcher, 34(6), 3–15.

Capella University. (2008). Annotated Bibliographies. www.capella.edu/interactivemedia/onlineWritingCenter/downloads/annotatedBibliography.pdf

Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. Journal of Management, 25(3), 357–384.

Engle, M. (2018). How to prepare an annotated bibliography: The annotated bibliography. Cornell University Library. http://guides.library.cornell.edu/annotatedbibliography

Kansas University. (2017). Bibliographies. http://writing.ku.edu/bibliographies

Karakey, G. (2012). Annotated bibliography: Why you should prepare one. karakey.com/phdadvice/annotated-bibliography-why-you-should-prepare-one/

Nastachowski, B. (2016). Sample annotated bibliography. Walden U. https://academicguides.waldenu.edu/ld.php?content_id=16345933

Piccoli, G., & Ives, B. (2005). IT-dependent strategic initiatives and sustained competitive advantage: A review and synthesis of the literature. MIS Quarterly, 29(4), 747–776.

Stacks, G., Karper, E., Bisignani, D., & Brizee, A. (2018). Annotated bibliographies. Purdue University. https://owl.english.purdue.edu/owl/resource/614/01/

Torpey, E., & Terrell, D. (2015). Should I get a master's degree? U.S. Department of Labor, Bureau of Labor Statistics. https://www.bls.gov/careeroutlook/2015/article/should-i-get-a-masters-degree.htm

Thistlethwaite, J., Moran, M., & World Health Organization Study Group on Interprofessional Education and Collaborative Practice. (2010). Learning outcomes for interprofessional education (IPE): Literature review and synthesis. Journal of Interprofessional Care, 24(5), 503–513.

University of New England. (n.d.). Writing an annotated bibliography. https://aso-resources.une.edu.au/assignment-types/writing-an-annotated-bibliography/

U.S. Department of Education. (2008a). Structure of the U.S. education system: Bachelor's degrees. https://www2.ed.gov/about//offices/list/ous/international/usnei/bachelors.doc

U.S. Department of Education. (2008b). Structure of the U.S. education system: Master's degrees. https://www2.ed.gov/about//offices/list/ous/international/usnei/master.doc

U.S. Department of Education. (2008c). Structure of the U.S. education system: Research doctorate degrees. www2.ed.gov/about/offices/list/ous/international/usnei/us/doctorate.doc

University Writing Center. (2018). Annotated bibliographies. Texas A&M University. http://writingcenter.tamu.edu/Students/Writing-Speaking-Guides/Alphabetical-List-of-Guides/Academic-Writing/Annotated-Bibliographies

Walsh, D., & Downe, S. (2005). Meta⊔synthesis method for qualitative research: A literature review. Journal of Advanced Nursing, 50(2), 204–211.

Xifra, J., & Castillo, A. (2006). Forty years of doctoral public relations research in Spain: A quantitative study of dissertation contribution to theory development. Public Relations Review, 32(3), 302–308.