Chapter 12
Writing Papers Using Nvivo8 and Coh-Metrix

Felicia Zhang
University of Canberra, Australia

ABSTRACT
With the release of Nvivo8 in 2008, this chapter first discusses the use of Nvivo8 to conduct a literature review using the writing of this paper as an example. Nvivo8 has overcome a major challenge to a research project of importing sources in pdf formats. It now is also capable of capturing video and audio as secondary data sources. Nvivo8 has been very useful for analyzing literature and theory generation. It is also a good management tool for organizing the sources in any research project.

In the second part of the paper, after writing the chapter with the help of Nvivo8, the use of Coh-Metrix (http://cohmetrix.memphis.edu/cohmetrixpr/index.html) will be used to benchmark the quality of the writing against the author’s previously published papers. Coh-Metrix is a web-based computer tool that analyzes texts on over 200 measures of cohesion, language, and readability. Its modules use lexicons, part-of-speech classifiers, syntactic parsers, templates, corpora, latent semantic analysis, and other components that are widely used in computational linguistics. Standard text readability formulas scale texts on difficulty by relying on word length and sentence length, whereas Coh-Metrix is sensitive to cohesion relations, world knowledge, and language and discourse characteristics. In this chapter, the author uses argument overlap, latent semantic analysis (LSA), and number of connectives as well as Flesch-Kincaid Grade Level (FKGL) to assess readability difficulty in a number of previously published papers in education and applied linguistics written by the author. This establishes a benchmark for her papers. Then the present paper will be compared against the benchmark for readability.

It is argued that the use of Nvivo8 and Coh-Metrix is capable of increasing the quality of submissions for publication and will be an excellent set of tools for postgraduate students to use for publication purposes.

DOI: 10.4018/978-1-61350-065-1.ch012
INTRODUCTION

In the field of education or applied linguistics, the writing of a paper for submission to conferences or a journal usually starts with a literature review. Nowadays, conducting a literature review is most likely to be done online through searching using various search engines and through library databases. The results of such exhaustive search online are endless pieces of published research and other sources. The researcher, then, has to piece these pieces of research together in order to tell an engaging and fascinating story. As Beekhuyzen (2008) pointed out ‘There is a lack of available practical information on how to conduct a literature review, and there is even less available that use qualitative research software to support the process.’ To address this gap, this paper discusses the journey of an applied linguist using Nvivo8 to write a paper for publication. In this chapter Nvivo8 is proposed as a tool to help any researcher accomplish the task of writing a literature review. A practical example consisting of five steps using Nvivo8 will be described in detail. It is envisaged that using well-known qualitative research software such as Nvivo8 gives researchers new opportunities to save time and energy while maintaining the quality of their work. This chapter is also aimed at postgraduate students and emerging researchers who might not know how to do a literature review and especially how a qualitative research software tool might help in this regard.

It is important to remember that Nvivo8 is a software tool, and it supports the way you work but it does not do the analysis for you. Traditionally Nvivo8 has been used mostly for data collected in the field but now it is being used more regularly for reviewing literature; see the recent paper by Bandara (2006) in which she presents “an illustrative demonstration of Nvivo2 for research management.” However Di Gregario (2000) started the discussion when she demonstrated the tools in Nvivo2’s toolkit which she believes “support the various processes and strategies involved in constructing arguments from the literature” (p. 2). More recently, some other papers on how to use the software for research have been published, and are useful in providing advice to researchers (see Dean and Sharp, 2006; Woods and Wickam, 2006 for further reading).

In the second part of the paper, the use of a web-based software Coh-Metrix is discussed as a tool for researchers or postgraduate students to check the readability of their work prior to paper submission.

PART 1: CONDUCTING A LITERATURE REVIEW

What is the Purpose of a Literature Review?

The purpose of a literature review is to highlight the discrepancy between what we know and what we need to know in order to situate a paper’s contribution in a specific domain. It will also aim to extend current theories in order to create directions for future research. However, as Webster and Watson (2002) pointed out, extending or developing theories, while a difficult task, it is, nonetheless, the most important part of a review and generally needs the most elaboration.

Di Gregario (2000) further argues that “Literature reviews are a common feature of all dissertations, regardless of discipline or subject matter. However, they are usually overlooked as a form of qualitative analysis, yet the processes involved in building an argument from a body of literature are similar to processes involved in analyzing qualitative data…… only Nvivo8(to date) has a particular set of tools that is ideal for analyzing literature.” (Di Gregario, 2000, p.2). In my projects, Nvivo8 was used here as a qualitative data analysis technique to synthesize and manage the volume of literature. It was also used to gain a holistic view of the current status of research in