Chapter 13

Designing Effective Online Educational Literature Searches: Procedures for Content Analysis and Validation

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Learning Objectives

1. Describe the problem addressed in the project.
2. Describe the project.
3. Summarize the steps in the project. Be sure to include the major categories and subcategories.

The chapter addresses the problem of searching for relevant original source research amidst the volume of non-relevant information available from online databases. The present project describes how an Internet content area database of terminology was set
up and used to locate pertinent journal articles from a major journal in a specific area. The way that these articles were coded in ERIC was then used as a source to gather a list of terms which could be used to search for specific topics across all of ERIC. A procedure for verifying the preciseness of these terms was described. The methodology used here can serve as a general guide to helping people develop efficient large database search strategies.

Abstract

Knowing the existing research literature has become important for anyone involved with education, informed research, policy, and practice rests on an understanding of unfiltered original source material. Although there has been a proliferation of research studies which are now easily accessible through online resources, being able to find information on specific topics is proving to be a challenge even for experienced researchers. This chapter describes a procedure which first identified field-specific terminology associated with original source material. The parallel terms used in the ERIC database to code the same material was then found. The resulting parallel list of ERIC keywords was tested and validated for preciseness. The finding was that each term’s precision could be established. The general methodology developed here is presented as a way of enhancing peoples’ use of online resources.

Introduction

It is critically important that people who are investigating issues in education be aware of the research literature that is available. Whether the investigator is a researcher, student, policy maker, practitioner or parent, knowledge of existing ideas in a field can assist in the understanding of issues. Even if an investigation is being done in a new area, it is important to know how much related information currently exists.

The blessing and curse of contemporary research is the voluminous amount of information that is now available and accessible through online resources. Two of the present authors recently reviewed the complete contents of an eminent special education journal, Education and Training in Mental Retardation/Developmental Disabilities, in developing an edited text of readings (Sandieson & Sharpe, 2004a, 2004b, 2004c, 2004d). The change in quality of articles over the journal’s 40 years of existence was quite evident. Particularly noticeable was the development of the quality of the reviews of the literature within the articles. Reviews have become far more extensive and sophisticated, likely due to the availability of online research databases such as ERIC, PsychInfo, and MEDLINE. The curse of this wealth of information found on the larger databases is the difficulty of sorting through what sometimes seems like innumerable articles to find ones that are directly pertinent to the investigation at hand. As noted by Spink and Xu (2000), one of