

THE WEB AS AN EFFECTIVE TOOL FOR KNOWLEDGE DEVELOPMENT: A CASE EXAMPLE OF POTENTIAL INNOVATIONS IN RESEARCH METHODOLOGY

Jeffrey Lacasse, MSW^{*}
Tomi Gomory, Ph.D.[°]
Scott Ryan, Ph.D. [°]

The goal of this project is to examine the field of play therapy, a popular psychosocial intervention used with children. The use of technology has been integrated throughout in order to facilitate sound research methodology, critical discussion of the issues, and significant cost savings as compared to alternate methods. Through a cooperative agreement with the Association of Play Therapy (APT), we will be able to contact their organization's entire membership and ask them to complete an on-line survey. Our next step is to review the entire body of empirical outcome literature in the field. We are in the process of completing an article analyzing this research using an innovation, an adjunctive website that offers the reader additional information and an opportunity for interaction with the authors. Finally, a statistical method, concept mapping, will be for analyzing the qualitative data gathered from the member survey.

USE OF THE WORLD WIDE WEB

Our on-line survey has been posted through the use of a web-based commercial survey vendor. Although we had initially considered other options (such as authoring it and publishing it on the web ourselves), it became readily apparent that the commercial web-based survey offered significant advantages. The vendor we used, www.formsite.com, was very user-friendly and offered a number of helpful features. Among those were SSL security, the option to block multiple responses from a single computer, and the ability to download the survey data in a comma-delineated format that could easily be imported into a spreadsheet or statistical software package.

Through the use of a commercial web-based survey, researchers can create on-line surveys at low cost. Since these are web-based, only a basic level of familiarity with the Internet is required, as opposed to more sophisticated knowledge of specific webpage-authoring software. We feel this option may have significant advantages for graduate students and others interested in putting surveys on the web in an expedient, cost-effective manner. We also found the cooperation of APT invaluable, as they are encouraging their membership to participate in the research. As the study is ongoing, we do not yet have a final response rate, but we feel we are benefiting from having the APT homepage linked to our survey.

We are also attempting to collect the entire body of outcome literature around the subject of play therapy. Since this intervention has existed for more than half a century, this consists of hundreds of articles. We are reviewing the

* Doctoral Student, Florida State University School of Social Work

° Assistant Professor, Florida State University School of Social Work

most rigorous experimental studies in a forthcoming journal article, but due to practical page limitations, it is unrealistic to hope to list the entire body of literature in our article. However, many of the non-empirical articles contain valuable information and we want to list this information as a resource for interested students and academics. Therefore, we have posted a listing of the play therapy literature on the World Wide Web; readers of our article will be referred to the website for further information. This offers an innovative manner of working within article publication limitations while offering useful information to interested parties.

We also envision a system where various academics might act as 'electronic archivists' and keep a running list published on the web of the literature around the topics in which they are actively engaged. This would not replace normal literature searches but could act as a complementary approach for students and academics searching for such information.

For our purposes, this website also contains a bulletin board that allows readers to comment and critique the field in general and our articles in particular. Journals do contain letter columns that are supposed to serve a similar purpose, but they are subject to time-delay and space limitations. An electronic format allows instantaneous response, unlimited space, and the building of a critical electronic community. Some journals already offer a similar approach, such as the *British Medical Journal*. For those that do not, we suggest that the authors create such an environment themselves.

ANALYSIS OF THE EMPIRICAL LITERATURE

Our approach follows a Popperian critical rationalist methodology based on falsifiability as the criteria for scientific evaluation (Popper, 1979; 1989; Gomory, 2001). This simply means that we take all of the relevant literature and subject it to an 'internal audit' of its theoretical and empirical claims. This approach can be opposed to another currently popular alternative that is claimed to have useful descriptive and inferential properties called meta-analysis. Where meta-analyses generally accept the findings of the individual studies under review as to empirical "fact" and method, we seek to rigorously test the claims of each study as to the method used and the "facts" found by attempting to falsify such claims (i.e. can the methodology of the study actually accomplish what is claimed for it or are the data and its interpretation reliably and validly examined). This critical 'internal audit' we believe leads to a more accurate assessment of research than methods like meta-analyses (for the problems of meta-analyses see Oakes, 1986, chiefly pp.157-163).

CONCEPT MAPPING

Qualitative research has historically been fraught with problems of subjectivity, the lack of staying true to a particular methodology, and research findings that may be difficult to interpret. To address this limitation, this project is utilizing concept mapping, a statistical technique designed for the management and interpretation of certain types of qualitative data. The technique utilizes multidimensional scaling and cluster analysis in order to derive a visual representation, or map, of the conceptual relationships among a set of qualitative statements. This methodology has been utilized in a variety of settings and with a

variety of populations – from strategic planning amongst fortune 500 companies to a local Big Brothers/Big Sisters program (Concept Systems, 2000; Galvin, 1989). It has even been used to map the conceptual image of God (Kunkel, Cook, Meshel, Daughtry & Hauenstein, 1999). Computer software has been developed specifically for this purpose (Trochim, 1989), and will be demonstrated with potential applications to web-based research and innovative methodological designs highlighted.

CONCLUSION

Our project has significant implications for those in higher education who are pursuing outcome research. We examined one well utilized therapeutic intervention in the important area of child welfare, including the demographics of play therapists, the entire body of relevant literature for the field, critical analysis of the scientific basis for claims of efficacy, and conceptualization of the qualitative data through the use of concept-mapping software. Furthermore, we made some suggestions, including the idea that web-based commercial surveys may be cost-effective for use in academia and the proposal that academics begin acting as ‘electronic archivists’ in order to promote easy access to the relevant literature in their field of study. Our published articles on these topics will refer to our website, which will provide additional information and a critical feedback loop, a practice we encourage other authors to begin engaging in.

Concept Systems. (March 1, 2001). Partial list of clients [On-line]. Available: <http://conceptsystems.com/clients/users.htm>

Galvin, P. (1989). Concept mapping for planning and evaluation of a Big Brother/Big Sister program. Evaluation and Program Planning, 12, 53-57.

Gomory, T. (2001). Critical rationalism (Gomory’s blurry theory) or positivism (Thyer’s theoretical myopia): Which is the prescription for social work research? Journal of Social Work Education, 37, 67-78.

Kunkel, M., Cook, S., Meshel, D., Daughtry, D., & Hauenstein, A. (1999). God images: A concept map. Journal for the Scientific Study of Religion, 38(2), 193-202.

Oakes, M. (1986). Statistical inference: A commentary for the social and behavioral sciences. New York: John Wiley.

Popper, K. (1979). Objective knowledge: An evolutionary approach. New York: Oxford.

Popper, K. (1989). Conjectures and refutations: The growth of scientific knowledge. (2nd ed.). New York: Basic Books.

Trochim, W. (1989). An introduction to concept mapping for planning and evaluation. Evaluation and Program Planning, 12, 1-6.