Evidence Based Library and Information Practice

Various Factors May Influence High School Student Use of Public Libraries

A Review of:
Sin, S.-C. J. (2012). Modeling the impact of individuals' characteristics and library service levels on high school students' public library usage: A national analysis. *Library & Information Science Research, 34*(3), 228–237. doi:10.1016/j.lisr.2012.01.002

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Abstract

Objective – To discover the factors that influence frequency of high school students' usage of public libraries.

Design – Structural equation modeling (SEM) using the person-in-environment (PIE) framework to test latent variables and direct and indirect relationships between variables.

Setting – Public and school libraries in the United States.

Subjects – Three datasets: Educational Longitudinal Study of 2002, the National Center for Education Statistics (NCES), provides data about individual students;

Public Libraries Survey of 2004, then conducted by NCES, provides data about public libraries in the United States; and Summary Files 1 and 3 of U.S. Census 2000, provide neighborhood-level demographic data.

Methods – Using ArcGIS, the researcher prepared and linked three datasets. Data were analyzed using factor analysis, regression, weighted least squares, and path analysis in order to test relationships between variables exposed in three large datasets.

Main Results – Frequency of public library use by high school students may be influenced by several factors, including race and/or ethnicity and access to resources like school libraries,

home computers, and public libraries with adequate service levels.

Conclusion – Increased funding for public library spaces and resources may be warranted by the finding that high levels of public library service may increase high school students' use of public libraries, particularly in socioeconomically disadvantaged neighborhoods.

Commentary

In an effort to understand barriers to public library use among high school students, Sin set out to explore how teen information behaviour is influenced by personal characteristics and by characteristics of their schools and public libraries.

This research analyzes three large nationally representative datasets: the Education Longitudinal Study of 2002; Summary Files 1 and 3 of Census 2000; and the 2004 Public Libraries Survey. The author acknowledges that the conclusions cannot be generalized to all public library users. Sin used these datasets to test variables derived from the "person-in-environment" (PIE) framework. PIE is a conceptual and methodological framework for information behaviour (IB) research that Sin introduced in a previous publication (2011). Describing the development of the PIE framework in greater detail would have given the author the ability to compare PIE to other conceptual frameworks used in IB research, potentially strengthening the credibility of the relatively-unknown PIE framework for this research.

Data were prepared and linked using ArcGIS, and structural equation modeling (SEM) was utilized to test the influence of many variables on three library use outcomes: school work, leisure, and Internet access. An extensive description of the conceptual model and data analysis procedures bolster the validity of this unique and complex research. Unfortunately, the lengthy procedural narrative leaves less time for thorough discussion of the findings.

In linking outcomes to community-level characteristics, including access to information resources in schools and ready access to public libraries, the author seeks to demonstrate the link between information behaviour and library resources. The author reports descriptive data to indicate that high school students use school libraries more frequently than public libraries, though the 67% who reported using public libraries were more likely to do so for school work than for leisure or Internet access. In modeling latent and single indicator variables, the author reveals positive indicators for use of the public library, including limited information resources at school, race or ethnicity, and to a lesser extent, public library "environment." Negative indicators include high use of a school library and access to a computer and Internet at home.

The author concludes that greater "service levels" at public libraries encourage high school students to use public libraries more. Indeed, the structural model shows a statistically significant correlation between frequency of use and two variables: public library environment and public library accessibility. Left to assume that these variables are defined by data drawn from the Public Libraries Survey, one must also wonder which budgetary, programmatic, and personnel data informs "public library environment." This omission leaves librarians, administrators, and policy makers without enough information to act on the findings. Librarians, administrators, teachers, and public funding agencies may be intrigued by the author's findings that school information environment and race/ethnicity influence public library use frequency. These findings might inspire new partnerships between school and public librarians, new programming and collection development in public libraries, cultural competency training for public librarians and staff, or other initiatives.

As exploratory research, Sin makes a compelling case that large nationally representative datasets can be used to model some aspects of information behaviour. The author's unique approach merits further

examination and application in the area of information behaviour research, and the wide-ranging findings may inspire deeper investigation of specific aspects of teen information behaviour.

References

Sin, S.-C. J. (2011). Towards agency-structure integration: A person-in-environment (PIE) framework for modelling individual-level information behaviours and outcomes. In A. Spink, & J. Heinström (Eds.), *New directions in information behaviour (Library and Information Science, Volume 1)* (pp. 181-209). Bingley, England: Emerald Group Publishing. doi:10.1108/S1876-0562(2011)002011a011