

**University Library Web Site Design: A Case Study of  
the Relationship between Usability and  
Information Literacy Development**

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## ABSTRACT

A university library web site is created as a means for providing information resources and services without the limitation of time or space. To ensure that the design of the web site will not be an obstacle to their users, usability is a key issue raised among librarians. In the tertiary context, information literacy is also widely promoted since it is regarded as the skills that can empower human development in the Information Society. These two issues, web site usability and information literacy, have motivated this thesis which is a case study influenced by phenomenography. The research was conducted with the purpose of investigating the relationship between the design of a university library web site, in particular its usability, and the development of students' information literacy through their experience of using the web site.

The understanding found within this research is informed by three clear phases of data collection: Phase 1: Development of the Criteria, Phase 2: Assessment of a Usable University Library Web Site Fostering Information Literacy, and Phase 3: Investigation of Students' Conceptions of Information Literacy Development. Various research methods were used in each phase: questionnaires, focus groups, and experts' selection of the criteria for Phase 1, heuristic evaluation and usability testing for Phase 2, and focus groups, think aloud protocols, and interviews for Phase 3. The data were analysed both quantitatively and qualitatively.

Two major outcomes are revealed as a result of the research. The first is the usability measures/criteria capable of reinforcing information literacy that can be useful in evaluating the design of a university library web site. The second is a model describing students' conceptions of information literacy development through the use of a university library web site. Results of the research also reveal that there is a relationship between the design of a university library web site, in particular its usability, and the development of students' information literacy through their experience of using the web site. This applies particularly at the information level, especially Information Literacy Attribute #2: finding and accessing the needed information efficiently and effectively. The students experience information literacy development through the use of a university library web site by experiential learning. Their conceptions of information literacy development can be divided into three categories: "no development", "restricted development", and "transferable development". Interestingly, there is no difference between students from different disciplines in terms of their ways of experiencing information literacy development through the use of a university library web site.

Considering the results, the hypothesis that there is no relationship between the design of a university library web site, in particular its usability, and the development of students' information literacy through their experience of using the web site is rejected. In contrast, the hypothesis that there is no noticeable difference between students from different disciplines in their ways of experiencing information literacy development through the use of a university library web site is accepted.

The research makes contributions to both theory and practice. Theoretically, it proposes a model describing students' conceptions of information literacy development through the use of a university library web site as well as the chronology and continuity of their conceptions. Practically, there are implications for university library web site design: implications for usability evaluation methods, for usability measures/criteria capable of supporting information literacy that can be used to evaluate the design of a university library web site, and for the usable and information literacy-supportive design of a university library web site. In addition, it also suggests some implications for information literacy development: implications for investigating the students' conceptions of information literacy development, for information literacy education in regard to the academic environment, and for information literacy education in regard to a university library. The study concludes with recommendations for possible future research in the hope that further insights into the design of a university library web site and information literacy development may be revealed.

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