USE OF A CORE CONCEPT SEARCH TOOL FOR THE INFORMATION LITERACY EDUCATION OF UNDERGRADUATE STUDENTS

By

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# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACRL</td>
<td>Association of College and Research Libraries</td>
</tr>
<tr>
<td>ALIA</td>
<td>Australian Library and Information Association</td>
</tr>
<tr>
<td>ANU</td>
<td>Australian National University</td>
</tr>
<tr>
<td>CIT</td>
<td>Canberra Institute of Technology</td>
</tr>
<tr>
<td>GNP</td>
<td>Gross National Product</td>
</tr>
<tr>
<td>HCI</td>
<td>Human Computer Interface</td>
</tr>
<tr>
<td>HTML</td>
<td>Hypertext Markup Language</td>
</tr>
<tr>
<td>HTTP</td>
<td>Hypertext Transfer Protocol</td>
</tr>
<tr>
<td>IP</td>
<td>Intellectual Property</td>
</tr>
<tr>
<td>IR</td>
<td>Information Retrieval</td>
</tr>
<tr>
<td>LC</td>
<td>Library of Congress</td>
</tr>
<tr>
<td>NESB</td>
<td>Non-English Speaking Background</td>
</tr>
<tr>
<td>OOP</td>
<td>Object Oriented Programming</td>
</tr>
<tr>
<td>PHP</td>
<td>PHP: Hypertext Processor (formerly Personal Home Page)</td>
</tr>
<tr>
<td>SARS</td>
<td>Severe Acute Respiratory Syndrome</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Messaging Service</td>
</tr>
<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
</tr>
<tr>
<td>WoS</td>
<td>Web of Science</td>
</tr>
<tr>
<td>WWW</td>
<td>World Wide Web</td>
</tr>
<tr>
<td>XML</td>
<td>Extended Markup Language</td>
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Abstract

Through largely experimental research, this thesis addresses the problems faced by many undergraduate students in finding appropriate research materials for their academic work. Problems include identifying the best search terms to use with the various information retrieval tools and recognizing authoritative materials in the result sets. The problems are made more critical by the tendency for younger students to go straight to the Web because they have experience in using search tools such as Google and find the university-provided tools relatively difficult to use. The study also identifies at-risk groups such as those who lack digital literacies.

The study set out to establish whether an educational tool that combined information literacy instruction with a web search facility would help undergraduate students find appropriate research materials and develop the information literacy understandings and skills required for university study. A unique purpose-built tool, with embedded thesaural database, was developed and then a two-phase test was conducted. There were three sub-questions in this research; can an online search tool improve student information seeking knowledge/skills, assist students with identification of search terms and assist with evaluation of appropriate research materials?

The Phase 1 experiment was a pre-test/post-test experiment using a questionnaire. There were three pre-post research questions which participants were asked to answer providing search terms and any of the steps of information seeking and the criteria for recognizing the authority of found materials. After collecting pre-test data that helped identify existing knowledge of the six steps of information seeking and authority of research material, the pre-test post-test data was to enable comparison of the results.
The post-test result of the Phase 1 experiment showed that 21.6% could identify some basic steps of information seeking whereas the pre-test result was 8.1%, representing an increase of 13.5%. This is the level of increase in knowledge aimed for in the research design however because of the sample size the findings are not conclusive. Regarding the criteria for identifying the authority of found material, following the pre-test post-test comparison 44.4% addressed one criterion, four participants 22.2% addressed two criteria, 16.6% addressed three criteria and 22.2% addressed four criteria. This shows an increase in the knowledge of recognition of authoritative materials.

The Phase 2 group used the tool while the researcher, using talk-aloud protocols, collected information about participants’ tool use and their observations. Phase 2 contributed to the study by students providing verbal input that they recognized the importance of using correct search terms.

The experiment was unique, in embedding information literacy instruction in a web search tool, at point-of-need. It provided positive responses to suggest that further research and development in this field would have important educational impacts. The small sample size indicates that the results lack statistical significance. The thesis suggests ways to overcome the study’s limitations and to broaden the evaluation such as the use of a library information literacy package as a control in future evaluation and testing.