

CHAPTER THREE

METHODOLOGY

3.1 Research Design

This study seeks to evaluate the content and design of academic library Web sites in Malaysia by using a mixed-method approach that combines quantitative and qualitative analyses. The following surveys were carried out:

- a) A search through the Internet to identify universities and well-known local institutions of higher learning in Malaysia that have established Web sites. Through the Web sites, possible links to their libraries were identified. For the Web sites where the links to their libraries could not be identified, electronic mails were sent to their Webmasters.
- b) The Uniform Resource Locators (URLs) of academic library Web sites obtained were followed up with online “visits” to verify their Web presence. Based on the expectations identified in the literature review, a special matrix was prepared to evaluate the content and design of the selected Web sites.
- c) To sharpen the understanding of the above findings, the evaluation design was expanded to rating task. Information professionals and library users of the selected Web sites were invited to participate in a survey. A questionnaire form comprising a number of evaluation criteria, selected

based on the literature survey, was handed out either using electronic mail or with the assistance of colleagues and lecturers.

3.2 Research Objects

Academic library Web sites in Malaysia, information professionals and library users of the academic libraries have been identified as research objects. The details of sampling, selection, and participation of the survey are as follows:

a) Academic library Web sites in Malaysia

A total of eleven URLs of academic library Web sites were obtained through their university links in May 1999. Two electronic mail messages were also posted to the Webmasters of Universiti Malaysia Sarawak (UNIMAS) and Universiti Tenaga Nasional (UNITEN) to request for the URLs of their libraries.

The Webmaster of UNIMAS replied on 4 June 1999 informing that its library is called academic information service centre, a new concept for the integration of the computer centre and the library.

The Webmaster of UNITEN replied on 4 August 1999 saying that its library Web site will be published on the Internet very soon but it is only

an Intranet set-up. Therefore, UNITEN library was excluded from the study.

b) Information professionals

Simple random sampling was used in selecting participants. A total of 75 information professionals who have an electronic mail published in the selected Web sites were invited to participate in a questionnaire survey. They received a questionnaire form to express their views on selected Web sites, excluding the site of their own place of work. They were instructed to perform the evaluation of criteria from a user's point of view.

c) Library users

The users include academic staff, students, and the public users of academic library Web sites. Using simple random sampling, the author, with the assistance of colleagues and lecturers or direct email, handed out questionnaire to a total of 75 selected library users.

3.3 Research Instruments and Implementation

Two different research instruments, quantitative and qualitative analyses, were used in the study. Qualitative and quantitative analyses are characterised by different techniques of data collection. Two analyses would be more appropriate than one because there is no single best plan for an evaluation. In

addition, it would be able to increase the validity and reliability of data collected.

Qualitative analysis was employed as an observational technique carried out from December 1999 to February 2000. The content and design of the selected Web sites were analysed. A matrix was developed to reflect the features that might be found on an academic library Web site, based on literatures. This matrix was then used to record the features present in each Web site. It was extended, as necessary, as new features were noted on Web pages accessed for the study. The following items were included in the matrix:

- 1) General information of the library
- 2) Library Online Public Access Catalogue (OPAC)
- 3) Links to other Internet resources
- 4) Interactive services
- 5) Internal electronic database services
- 6) External electronic databases services
- 7) English version
- 8) Technical services
- 9) Instructional supports
- 10) Other important features, such as last update, and postal or street address of the library
- 11) Loading time of images

12) Marketing techniques.

Quantitative analysis method was used on the data gathered from a survey carried out from December 1999 to January 2000. Information professionals and library users of selected Web sites were invited to participate in the survey. Participation was voluntary. Also, confidentiality was assured. In addition, all participants were informed about the eventual use of all the data collected.

Information professionals and library users of the selected sites were asked to rate the evaluation criteria. A total of 25 evaluation criteria were listed in a questionnaire form (Appendix A). Each participant was asked to rate each criterion on a 5-point Likert-type response scale in terms of how important each criterion was, where 1 = relatively unimportant (compared with the rest of the criteria), 2 = somewhat important, 3 = moderately important, 4 = very important, and 5 = extremely important.

3.4 Data Analysis

Statistical methods are not applied to any qualitative analysis. Therefore, the matrix display would not be analysed by statistical methods. However, the data collected from the information professionals and users were analysed

using the Statistical Package for the Social Science (SPSS). With SPSS 9.0 for Windows, the author conducted the following types of statistical analyses:

a) Descriptive statistics

Mean was used to obtain the simple average of the importance of criterion as perceived by information professionals and library users. Then, the standard deviation was computed to give a more accurate and detailed estimate of dispersion in order to understand the spread of the values around the simple average.

b) Factor analysis

A factor analysis was run on all criteria (25 criteria) in the questionnaire to detect common traits and to reduce the long list of criteria to a smaller and more general set of factors.