tronic resources would provide answers quickly and were surprised when they located information in print resources more easily. When asked to identify information resources with which they were familiar, subjects identified Internet resources about as often as library databases but cited print resources much less frequently.[28] The study also indicates that business students valued their time, seeking "immediate tradeoffs in their allocation of time versus the amount of relevant information retrieved" and going so far as to end their research when the time they allotted themselves to complete the research was finished, rather than when their information needs were filled.[29] Similarly, Thomas R. Mirkovich, in a study of the library use patterns of undergraduate business and MBA students, found that library use by business students was very light. These students were unaware of the types of business resources available to them and received little guidance from their faculty.[30] Atkinson and Figueroa further asserted that business students, by the nature of their academic discipline, are predisposed to these perceptions.[31] Business students and professionals alike see the value of time ("Time is money") and the importance of keeping current with new technologies to maintain a competitive advantage; thus, it seems likely that they would turn most often to the Web for their information needs.

Unfortunately, although the Internet opens the door to a wealth of business-related data, reliance on the Web also can result in the neglect of important information housed in traditional print resources and online databases. Further, the Web (at least the portion that is available *freely*) is not necessarily the most efficient place to begin looking for discrete business data and statistics (such as industry ratios), especially for inexperienced searchers. Business information on the Web is often fragmented, making thorough searches for information on a particular company or industry difficult and time-consuming.

To combat business students' perceptions, Atkinson and Figueroa suggested that library instruction for these students should emphasize "cost-effectiveness and time-efficiency when retrieving print resources versus electronic resources."[32] But given that business students are predisposed to think favorably about online resources and that a plethora of company and industry data is available on the Web (without respect to the accuracy and objectivity of that information), how successful can a librarian and a management professor be in persuading students to use a full range of business information resources, including print resources and subscription-based databases, to complete a major research assignment? The authors of this study attempted to address this question by exploring whether undergraduate business students at Oakland University shared similar attitudes toward online and print business resources as those demonstrated in the literature and by investigating whether library instruction could affect students' perceptions, biases, and use of information resources in completing a research project.

## Methodology

### *Procedures*

The study sample was drawn from three sections of a required business class during the fall of 2001. This class, known as Strategic Management, requires students to study how companies position themselves to compete in various industries. Although the class was mandatory, participation in the study was voluntary and those students who chose to participate were given extra credit. The study was conducted in three phases.

*Phase one:* On the first day of class, after the instructor described the research project required for the class, the business librarian explained the study and solicited subjects. The students who enrolled in the study then completed a questionnaire designed to capture their knowledge of, attitudes about, and experiences using three information formats: library print resources, library databases and Web resources.[33] In addition, students were asked to assess their ability to complete the research required for the class

and to predict which types of resources they expected to rely on most heavily to complete the project.

*Phase two:* Approximately five weeks into the semester, the business librarian introduced students to business research tools available at or through the library. The librarian began the session with a discussion of the benefits and problems of the three resource types and solicited student opinions about each resource type. In addition, she emphasized the importance of using a variety of resources when conducting research. This discussion was followed by a demonstration of individual resources. Finally, the librarian provided students with an extensive handout that categorized different types of Web, database, and print business resources along with their location in the library or online. For those resources available in both electronic and print formats, both locations were given. After the formal instruction, students completed a brief exercise that required them to answer business-related questions using the resources presented to them during the session.

*Phase three:* Phase three consisted of two parts. During the last week of class, students returned to the library for a follow-up session wherein the librarian provided instruction on proper citation format for Web, database, and print resources. On the last day of class, participants handed in their research projects and completed a second questionnaire that was designed to capture their knowledge, attitudes, and experiences regarding the different information formats, as well as their perceptions of the research project and their library use during the course of the semester. To maintain confidentiality, all of the instruments used in this study had an identifying number linking them to each other, but not directly to individual students. The resulting data were analyzed using the SPSS statistical package.

### *Sample*

At the beginning of the semester, 102 subjects enrolled in the study. Subjects were required to attend two library sessions, complete two exercises, and fill out two questionnaires in order to be included in the study. Students who did not complete all three phases of the study were automatically dropped from the sample. By the end of the semester, twelve subjects either withdrew or were eliminated based on their inability to complete the study. The final sample consisted of ninety students.

The average age of the students was 24 years, and the average GPA was 3.10. Table 1 summarizes other relevant demographic information. Because the researchers were interested in prior research behavior, they tried to determine how the students had used the library in the past and where they preferred to conduct their research (table 2). At the beginning of the study, 63 percent of the stu-

**TABLE 1**
**Sample Demographics**

| Major | Frequency | Percent |
|---|---|---|
| MIS | 39 | 43.3 |
| Marketing | 15 | 16.7 |
| General management | 11 | 12.2 |
| Human resource management | 10 | 11.1 |
| Accounting | 9 | 10.0 |
| Finance | 4 | 4.4 |
| Other | 2 | 2.2 |
| **Work Status** | | **Percent** |
| Works part-time | 42 | 46.7 |
| Works full-time | 41 | 45.6 |
| Does not work | 7 | 7.8 |
| **Academic Status** | | **Percent** |
| Part-time student | 13 | 84.4 |
| Full-time student | 76 | 14.4 |
| **Gender** | | **Percent** |
| Female | 54 | 60.0 |
| Male | 36 | 40.0 |
| **Average Age** | 24.3 (min. = 19; max. = 48) | |
| **Average GPA** | 3.1(min. = 2.6; max. = 3.8) | |

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