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# Helping International Students Succeed Academically through Research Process and Plagiarism Workshops

Yu-Hui Chen and Mary K. Van Ullen

Workshops on the research process and plagiarism were designed to meet the needs of international students at the University at Albany. The research process workshop covered formulating research questions, as well as locating and evaluating sources. The plagiarism workshop focused on acknowledging sources, quoting, paraphrasing, and summarizing materials, citation styles, and avoiding plagiarism. The effectiveness of the workshops was measured by administering pre-and post-tests and by interviewing students several months after the workshops. The results showed that students achieved significant improvement for both the research process and plagiarism by attending the training, and they continued to apply new skills several months later.

he number of international students studying in the United States institutions of higher education has increased steadily to a record high of 671,616 in the most recent academic year according to the Open Doors report published by the Institute of International Education (IIE).<sup>1</sup> At the University at Albany, the authors have seen a similar increasing enrollment over time. Over the last decade, international enrollment has increased 43 percent to a total of 1,170 students. Over 70 percent of the international students at the university come from Asian countries, primarily from China, South Korea, and India. Due to cultural differences, international students have unique challenges in their new aca-

demie environment. They may encounter culture shock when facing instructional methods, assignment requirements, and writing styles that are different from what they experienced in their home countries.

Over the past few years, the University at Albany Libraries have reached out to international students by providing a welcome reception and library tour during their orientation period and creating a podcast virtual library tour available in various languages. Based on our observations and experience, the authors recognized an unmet need for information about the structure and function of our library system, how to conduct research using our library resources, and how to cite materials and avoid plagiarism.

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Most of the library literature about international students focuses on providing reference services. However, studies devoted to librarians' support for research and academic writing conventions are minimal. To address this gap, the authors examined the impact of providing workshops on the research process and plagiarism for international students through a case study.

### Literature Review

Several researchers have noted that international students bring with them conditioning and expectations that may be at odds with the academic practices of their new settings. Niall Hayes and Lucas D. Introna at Lancaster University in the United Kingdom used focus groups and survey techniques to investigate the past plagiarism experiences of two small groups of graduate business students in their home countries. The students reported little prior experience writing papers or working on projects in their native countries, where classes tended to use only a single textbook and educational assessment was largely based on standardized tests. The students' own perceptions of what is acceptable, such as copying small passages without attribution, and even writing a paper for another student, were surprising. Students in the study felt that their ability to locate pertinent passages from different sources and group them appropriately in a cut-and-paste document, a practice termed "patchwriting" in the literature, demonstrated mastery of the subject matter and should not be considered cheating. The authors noted that international students often arrive with a skill set inappropriate for their new institutions. Their native educational systems emphasize memorization of texts, while study in the West requires that students evaluate and interpret texts to create original work. The authors stressed the need to address this dichotomy before international students are given Western-style assignments.<sup>2</sup>

Neera Handa and Wayne Fallon at the University of Western Sydney described

experiences stemming from a mandatory discipline-specific workshop for international students. The workshop was designed to familiarize the students with the university's academic standards, including class participation requirements, time management, group work, research requirements, and academic integrity. Feedback from students identified academic writing, critical analysis, and citation skills as topics that they found most challenging. Handa and Fallon advocated for awareness on the part of the teaching faculty of the cultural differences and background experiences that international students bring to the university setting, reasoning that the university staff has an ethical obligation to teach students about academic expectations and conventions.<sup>3</sup>

Cultural factors that contribute to the problem of plagiarism by international students have been discussed in the literature. James R. Lund stressed that ESL students, particularly those from Asian countries, have little background in the concepts of intellectual property and critical thinking. Educators must fill in the gaps by providing instruction covering the Western concepts of ownership of ideas and the idea of critical analysis. Lund recommended acknowledging different cultural treatment of the work of others in the institutional policy statements on plagiarism, while at the same time incorporating the institution's support of intellectual property.<sup>4</sup> Collin Sowden argued for the use of alternative assessment measures, such as the oral interview or presentation to replace the standard written essay. This would allow for a transitional phase for English language learners that respects the cultural traditions of their native educational systems.<sup>5</sup>

The concept of cultural conditioning as a driving factor in plagiarism among international students is not without controversy. Dilin Liu reviewed several widely used Chinese textbooks on written composition that stress the importance of citation practice.<sup>6</sup> Phan Le Ha noted that, while the academic citation conventions

of Asian countries may differ from those of Western countries, students are still expected to cite sources in both situations; it is the details of citation practice that are different.<sup>7</sup>

Most of the literature dealing with issues of academic integrity and international students has come from the education field, particularly from those engaged in teaching English language learners. The role of the librarian in helping students avoid plagiarism has been discussed to a smaller extent. Lise Buranen noted that librarians have a unique skill set among campus faculty, with a broad knowledge of citation and writing conventions across many departments. Librarians often work with students in informal face-to-face interactions that foster the development of a supportive and trusting environment. This type of relationship can be ideal for coaching students on both the mechanics of citation practice and the larger issues of academic integrity.<sup>8</sup> Lynn D. Lampert has written about efforts academic librarians can make to prevent student plagiarism, both within the library and in collaboration with teaching faculty and other campus organizations. She argued that librarians, because of their work in helping students understand the process of research, are in a unique role to help educate about how to avoid plagiarism. While the focus of Lampert's work was on college students in general, she described the efforts of several librarians to work with international students and recommended that all anti-plagiarism programs should involve efforts to reach international students.<sup>9</sup>

Maud Mundava and Jayati Chaudhuri stressed the importance of collaborating with campus groups to promote the ethical use of information, particularly among international students. They described the work of librarians at the University of Tennessee to combat plagiarism, which included offering workshops for international students and creating an "information literacy tool kit" to help students deal with proper attribution.<sup>10</sup>

## Methodology

In spring 2007, the authors met with tutors at the University at Albany Writing Center to explore the most common mistakes that our international students tend to make in writing their papers and how the university libraries could provide assistance to them. Based on the information shared by the tutors, the authors designed a series of two workshops: Research Process and Plagiarism. The research workshop covered selecting topics, formulating research questions, and finding and evaluating various types of resources. The plagiarism workshop focused on the purposes of acknowledging sources; situations that require citations; instances of plagiarism; differences between quoting, summarizing, and paraphrasing; examples of citation styles; and tips to avoid plagiarism.

After finalizing the training materials, the authors prepared pre-tests and post-tests for both workshops. The tests consisted of twenty multiple-choice questions plus Likert scale, and open-ended survey questions. The authors used multiple-choice questions to identify the weaknesses in participants' understanding of academic scholarship, and they applied Likert scale to measure the effectiveness of the workshops. The open-ended questions were designed to collect demographic information and comments that could not be captured in the other two formats. Test items for the research process focused on tools for finding research materials at the university libraries; distinguishing characteristics of scholarly journals, trade journals, and magazines; and differentiating library services (see Appendix I). For plagiarism, the questions centered on when to cite and how to identify instances of plagiarism (see Appendix II). Since this study involved human subjects, the authors submitted the research proposal to the Institutional Review Board at the university's Office of Research Compliance and received permission to proceed in September 2007.

As attending the workshops was voluntary in nature, the authors collaborated

with the Office of International Student and Scholar Services (ISSS), the instructor of Academic Writing in English as a Second Language (a hands-on course designed for graduate international students focusing on conventions of writing academic papers), and faculty in several academic departments to encourage students' attendance. Workshop information was also distributed at the library's international students welcome reception and displayed on the Web site and digital signage system.

From fall 2007 to spring 2009, twelve pairs of workshops were offered to groups of international students. Each session was two hours long. Eighty-eight students attended the research process workshops, and 75 students took advantage of the plagiarism training. Due to schedule conflicts, some students came in the middle of a workshop and some had to leave early. As a result, our valid samples were reduced to 70 for the research process and 65 for plagiarism. These workshop attendees were exchange, undergraduate, graduate, and doctoral students from more than ten academic departments. There was also a wide representation of the students' countries of origin: China, Japan, Taiwan, Korea, Turkey, India, Germany, France, Colombia, Peru, Chile, Mexico, Nigeria, Kenya, Indonesia, Saudi Arabia, and Thailand.

The authors administered pre- and post-tests using SurveyMonkey for each workshop and delivered learning materials through an interactive and hands-on approach. Students were first asked to talk about culture shock experienced after arriving in the United States. The authors also asked them about the differences in academic writing between the United States and their home countries. This discussion served as an ice-breaker and helped relate their experiences to the topic. The authors had students engage in group discussions and perform some hands-on exercises throughout the workshops.

In addition to the quantitative data collected via pre- and post-tests, during fall 2008 and spring 2009, the authors

interviewed 36 workshop attendees to learn how the series of workshops helped them when they conducted their research on their own and/or wrote their papers. The authors also solicited their feedback on workshop contents and suggestions for improvement and future initiatives. This qualitative data enabled us to understand the perceived usefulness of these workshops and gain more insight into the whole of the research project.

The authors exported data collected via SurveyMonkey to Excel and applied SPSS to perform quantitative analysis. The authors employed descriptive statistics to present students' baseline knowledge of the research process, plagiarism, and academic integrity. The authors also conducted *t*-tests to identify the differences in pre- and post-test results. In addition, the authors used text analysis approach to analyze transcribed interviews and comments provided in the open-ended questions.

### Research Objectives

Since a substantial proportion of international students at the University at Albany are from Asian countries and because cultural differences between Asian and non-Asian academic conventions were addressed prominently in the literature, the authors examined differences between these two groups in addition to differences among the disciplines and the program levels. The authors aimed to achieve the following objectives:

- To identify students' baseline knowledge of the research process and academic integrity;
- To measure the impact of the workshops on students' understanding of research process and plagiarism, including academic integrity;
- To determine if there is a relationship between attending a workshop on the research process and the improvement of a student's grasp of plagiarism and academic integrity issues;
- To compare master's with doctoral students in terms of their level of

basic knowledge of the research process and issues relating to plagiarism and academic honesty;

- To compare Asian with non-Asian students; and
- To identify the perceived usefulness of the workshops and opportunities to enhance or develop future workshops based on participants' feedback.

**Results**

**Research Process**

The mean scores for the 70 students completing both the pre-test and post-test were 15.2 (76.0%) and 18.4 (92.0%) respectively. The paired samples *t*-test indicated a statistically significant difference in the two mean scores ( $p < 0.05$ ). Students had more difficulty with answering some questions than others (see table 1). Identifying characteristics of periodicals covered in Questions 9 and 20 was one of the areas of substantial misunderstanding. For both questions, there were noticeable improvements in post-test results, but even so those had the two lowest post-test scores. Similarly, many students missed Question 5 dealing with characteristics of newspapers. A related question, 14, dealing with editorial review of several types of material, was also misunderstood by a large number of students. The role of librarians in the United States academic libraries was not fully understood as shown by responses to Question 11.

According to the post-test results, the areas that were the most troublesome were also the areas that demonstrated the largest gains as shown in table 2. The biggest improvement was shown in Question 2, which required the students to know the local name for the library online catalog. All questions listed in table 2 showed statistically significant differences between the pre-test and post-test responses.

As part of the demographic information collected, students were asked to indicate number of semesters they had studied in the United States and whether they had used the library for their re-

search. The relationship between the amount of time studying in the United States and the pre-test results of research process was virtually nonexistent. The mean score for the students who had used the library was 15.7 and 14.4 for those who had not; however, the difference was not statistically significant.

Of the students participating in the study, 37 were in master's programs and 29 were in doctoral programs. The remaining students were undergraduates or exchange students. The mean pre-test score for the masters was 14.6 (73.0%) and 15.8 (79.0%) for the doctoral students. The mean post-test score for the masters was 18.4 (92.0%) and 18.3 (91.5%) for the doctoral students. The *t*-test showed that

**TABLE 1**  
**Frequency and Percent of Correct Answers for Research Process Pre- and Post-tests by Question**

| Question | Pre-test   | Post-test   |
|----------|------------|-------------|
| Q1       | 52 (74.3%) | 64 (91.4%)  |
| Q2       | 46 (65.7%) | 70 (100.0%) |
| Q3       | 62 (88.6%) | 69 (98.6%)  |
| Q4       | 59 (84.3%) | 69 (98.6%)  |
| Q5       | 50 (71.4%) | 60 (85.7%)  |
| Q6       | 61 (87.1%) | 70 (100.0%) |
| Q7       | 58 (82.9%) | 66 (94.3%)  |
| Q8       | 50 (71.4%) | 69 (98.6%)  |
| Q9       | 38 (54.3%) | 48 (68.6%)  |
| Q10      | 59 (84.3%) | 68 (97.1%)  |
| Q11      | 49 (70.0%) | 56 (80.0%)  |
| Q12      | 59 (84.3%) | 63 (90.0%)  |
| Q13      | 59 (84.3%) | 70 (100.0%) |
| Q14      | 45 (64.3%) | 58 (82.9%)  |
| Q15      | 48 (68.6%) | 57 (81.4%)  |
| Q16      | 54 (77.1%) | 68 (97.1%)  |
| Q17      | 62 (88.6%) | 70 (100.0%) |
| Q18      | 62 (88.6%) | 69 (98.6%)  |
| Q19      | 57 (81.4%) | 69 (98.6%)  |
| Q20      | 33 (47.1%) | 52 (74.3%)  |

**TABLE 2**  
**Research Process: Areas of Greatest Improvement in Post-test Results**

| Question |   | Pre-test<br># of Correct<br>Answers (%) | Post-test<br># of Correct<br>Answers (%) | %<br>Difference |
|----------|---|---|--|-----------------|
| Q2       | To find out if our Libraries own books about your research topic, you would use?                                  | 46 (65.7%)                              | 70 (100.0%)                              | 34.3%           |
| Q8       | What is a call number?  | 50 (71.4%)                              | 69 (98.6%)                               | 27.2%           |
| Q20      | Journal articles ...  | 33 (47.1%)                              | 52 (74.3%)                               | 27.2%           |
| Q16      | How would you determine whether the information you have found is likely to be good quality research information? | 54 (77.1%)                              | 68 (97.1%)                               | 20.0%           |
| Q14      | Which of the following types of resources are often not reviewed by editors?                                      | 45 (64.3%)                              | 58 (82.9%)                               | 18.6%           |
| Q19      | What is a clue that you are looking at a scholarly journal?   | 57 (81.4%)                              | 69 (98.6%)                               | 17.2%           |
| Q1       | Background information on topics in the education field can be found in ...                                       | 52 (74.3%)                              | 64 (91.4%)                               | 17.1%           |
| Q13      | Minerva can be used to ...  | 59 (84.3%)                              | 70 (100.0%)                              | 15.7%           |
| Q4       | Scholarly journals ...  | 59 (84.3%)                              | 69 (98.6%)                               | 14.3%           |
| Q5       | To find information about very recent events, the best place to look is ...                                       | 50 (71.4%)                              | 60 (85.7%)                               | 14.3%           |
| Q6       | To identify a scholarly journal article on your topic, you could use ...  | 61 (87.1%)                              | 70 (100.0%)                              | 12.9%           |
| Q10      | Research produced by faculty at universities and colleges is most often published ...                             | 59 (84.3%)                              | 68 (97.1%)                               | 12.8%           |
| Q15      | Interlibrary Loan ...   | 48 (68.6%)                              | 57 (81.4%)                               | 12.8%           |
| Q17      | What are some clues to whether a Web site is reliable?  | 62 (88.6%)                              | 70 (100.0%)                              | 11.4%           |
| Q7       | All high quality information ...  | 58 (82.9%)                              | 66 (94.3%)                               | 11.4%           |
| Q3       | In the library, books are arranged by a classification system, which tends to shelve books together by?           | 62 (88.6%)                              | 69 (98.6%)                               | 10.0%           |
| Q18      | Peer review ...   | 62 (88.6%)                              | 69 (98.6%)                               | 10.0%           |

there was no statistical difference between these two groups.

The students involved in this study were enrolled in many programs. Some disciplines were more heavily represented than others, in particular education (23),

science and technology (14), and business (10). The mean pre-test score for education was 14.7 (73.5%), for science and technology was 14.9 (74.5%), and for business was 14.7 (73.5%). The mean post-test scores were 18.3 (91.5%), 18.7 (93.5%), and 17.7

(88.5%) respectively. The paired samples *t*-test results showed that there was a statistically significant difference ( $p < 0.05$ ) between their pre- and post-test scores within each discipline. However, a one-way ANOVA test did not show any statistical difference among the disciplines.

The data were examined for differences between Asian and non-Asian students (see table 3). The mean pre-test scores were 15.5 (77.5%) and 14.1 (70.5%) respectively. Although there was a small difference in mean scores as a whole, an independent samples *t*-test showed the difference was not statistically significant. Responses to Questions 3, dealing with

classification systems, and 10, dealing with scholarly communication, showed a statistically significant difference between these two groups. The mean post-test scores were 18.4 (92.0%) for Asian students and 18.1 (90.5%) for non-Asian students, with no significant difference between the groups.

**Plagiarism**

In general, students had more problems with the pre- and post-tests dealing with plagiarism than the research process. The mean scores for the 65 students completing both the pre-test and post-test were 13.1 (65.5%) and 17.3 (86.5%) respectively.

**TABLE 3**  
**Frequency and Percent of Correct Answers for Research Process Pre- and Post-tests by Asian and Non-Asian Students**

| Question | Research Pre-test     |                           |                     | Research Post-test    |                           |                     |
|----------|-----------------------|---------------------------|---------------------|-----------------------|---------------------------|---------------------|
|          | Asian Students (n=56) | Non-Asian Students (n=14) | All Students (n=70) | Asian Students (n=56) | Non-Asian Students (n=14) | All Students (n=70) |
| Q1       | 43 (76.8%)            | 9 (64.3%)                 | 52 (74.3%)          | 51 (91.1%)            | 13 (92.9%)                | 64 (91.4%)          |
| Q2       | 35 (62.5%)            | 11 (78.6%)                | 46 (65.7%)          | 56 (100.0%)           | 14 (100.0%)               | 70 (100.0%)         |
| Q3       | 54 (96.4%)            | 8 (57.1%)                 | 62 (88.6%)          | 56 (100.0%)           | 13 (92.9%)                | 69 (98.6%)          |
| Q4       | 49 (87.5%)            | 10 (71.4%)                | 59 (84.3%)          | 55 (98.2%)            | 14 (100.0%)               | 69 (98.6%)          |
| Q5       | 41 (73.2%)            | 9 (64.3%)                 | 50 (71.4%)          | 48 (85.7%)            | 12 (85.7%)                | 60 (85.7%)          |
| Q6       | 50 (89.3%)            | 11 (78.6%)                | 61 (87.1%)          | 56 (100.0%)           | 14 (100.0%)               | 70 (100.0%)         |
| Q7       | 46 (82.1%)            | 12 (85.7%)                | 58 (82.9%)          | 54 (96.4%)            | 12 (85.7%)                | 66 (94.3%)          |
| Q8       | 41 (73.2%)            | 9 (64.3%)                 | 50 (71.4%)          | 56 (100.0%)           | 13 (92.9%)                | 69 (98.6%)          |
| Q9       | 31 (55.4%)            | 7 (50.0%)                 | 38 (54.3%)          | 38 (67.9%)            | 10 (71.4%)                | 48 (68.6%)          |
| Q10      | 51 (91.1%)            | 8 (57.1%)                 | 59 (84.3%)          | 54 (96.4%)            | 14 (100.0%)               | 68 (97.1%)          |
| Q11      | 39 (69.6%)            | 10 (71.4%)                | 49 (70.0%)          | 46 (82.1%)            | 10 (71.4%)                | 56 (80.0%)          |
| Q12      | 47 (83.9%)            | 12 (85.7%)                | 59 (84.3%)          | 50 (89.3%)            | 13 (92.9%)                | 63 (90.0%)          |
| Q13      | 47 (83.9%)            | 12 (85.7%)                | 59 (84.3%)          | 56 (100.0%)           | 14 (100.0%)               | 70 (100.0%)         |
| Q14      | 35 (62.5%)            | 10 (71.4%)                | 45 (64.3%)          | 45 (80.4%)            | 13 (92.9%)                | 58 (82.9%)          |
| Q15      | 38 (67.9%)            | 10 (71.4%)                | 48 (68.6%)          | 49 (87.5%)            | 8 (57.1%)                 | 57 (81.4%)          |
| Q16      | 43 (76.8%)            | 11 (78.6%)                | 54 (77.1%)          | 54 (96.4%)            | 14 (100.0%)               | 68 (97.1%)          |
| Q17      | 50 (89.3%)            | 12 (85.7%)                | 62 (88.6%)          | 56 (100.0%)           | 14 (100.0%)               | 70 (100.0%)         |
| Q18      | 50 (89.3%)            | 12 (85.7%)                | 62 (88.6%)          | 55 (98.2%)            | 14 (100.0%)               | 69 (98.6%)          |
| Q19      | 48 (85.7%)            | 9 (64.3%)                 | 57 (81.4%)          | 55 (98.2%)            | 14 (100.0%)               | 69 (98.6%)          |
| Q20      | 28 (50.0%)            | 5 (35.7%)                 | 33 (47.1%)          | 42 (75.0%)            | 10 (71.4%)                | 52 (74.3%)          |



The *t*-test indicated a statistically significant difference in the two mean scores ( $p < 0.05$ ). (Pre- and post-test responses are summarized in table 4.) The questions that students had most difficulty with were 20, 12, and 17, which dealt with how to adequately paraphrase a passage. Students were also unable to identify commonly used citation styles as shown in Questions 15 and 16. In addition, they had trouble identifying elements of citations (Question 19) and recognizing a bibliography (Question 1). Furthermore, students had difficulty with why to cite (Questions 2 and 13), when to cite (Questions 3, 4, and 11), and how to cite (Question 10).

Table 5 shows the plagiarism test questions with statistically significant differences in pre- and post-test scores. Questions 15 and 16 dealing with identifying citation styles showed the greatest improvement. In general, students' understanding of why, when, and how to cite as well as how to adequately paraphrase rose substantially after the workshop as shown in Questions 2, 3, 4, 10, 11, 12, 13, 17, and 20.

The amount of time a student has spent studying in the United States presented a positive but weak relationship to the student's baseline knowledge of plagiarism ( $r = .260, p < 0.05$ ). A *t*-test was conducted to compare the pre-test scores on plagiarism between the students who had used the library for their research and those who had not. There was a slight difference in the mean scores of 13.4 for the former group and 12.2 for the latter group; however, the difference was not statistically significant.

Many of the students attended both workshops, but the research process workshop was offered prior to the plagiarism workshop. To determine if attending the research process workshop had an impact on the students' understanding of plagiarism, a *t*-test was conducted to compare the pre-test scores on plagiarism between the students who attended the research process workshop and those who did not. Those who had attended the research workshop had a mean score of 12.9, and

those who had not had a mean score of 13.4; there was no statistical difference.

Of the 65 participants, 33 were master's students, 31 were in doctoral programs, and one was an exchange student. The mean pre-test score for the master's students was 12.8 (64.0%) and for the doctoral students was 13.6 (68.0%). The mean post-test score for both groups was 17.3 (86.5%). The *t*-test showed that there was no statistical difference between these two groups.

As was the case with the research process workshop, most students were enrolled in the following programs: education (20), science and technology (14), and business (9). The mean pre-test scores for education was 13.1 (65.5%), for

**TABLE 4**  
**Frequency and Percent of Correct**  
**Answers for Plagiarism Pre- and**  
**Post-tests by Question**

| Question | Pre-test   | Post-test   |
|----------|------------|-------------|
| Q1       | 44 (67.7%) | 60 (92.3%)  |
| Q2       | 34 (52.3%) | 44 (67.7%)  |
| Q3       | 44 (67.7%) | 64 (98.5%)  |
| Q4       | 46 (70.8%) | 64 (98.5%)  |
| Q5       | 56 (86.2%) | 59 (90.8%)  |
| Q6       | 50 (76.9%) | 63 (96.9%)  |
| Q7       | 54 (83.1%) | 56 (86.2%)  |
| Q8       | 53 (81.5%) | 63 (96.9%)  |
| Q9       | 57 (87.7%) | 62 (95.4%)  |
| Q10      | 46 (70.8%) | 62 (95.4%)  |
| Q11      | 47 (72.3%) | 65 (100.0%) |
| Q12      | 23 (35.4%) | 39 (60.0%)  |
| Q13      | 36 (55.4%) | 53 (81.5%)  |
| Q14      | 59 (90.8%) | 63 (96.9%)  |
| Q15      | 24 (36.9%) | 60 (92.3%)  |
| Q16      | 38 (58.5%) | 64 (98.5%)  |
| Q17      | 36 (55.4%) | 53 (81.5%)  |
| Q18      | 55 (84.5%) | 64 (98.5%)  |
| Q19      | 36 (55.4%) | 39 (60.0%)  |
| Q20      | 10 (15.4%) | 25 (38.5%)  |

**TABLE 5**  
**Plagiarism: Areas of Greatest Improvement in Post-test Results**

| Question | Pre-test<br># of Correct<br>Answers (%)   | Post-test<br># of Correct<br>Answers (%) | %<br>Difference |       |
|----------|---|--|-----------------|-------|
| Q15      | Which of the following is not a citation style?   | 24 (36.9%)                               | 60 (92.3%)      | 55.4% |
| Q16      | The two major citation styles used in college research papers are ...   | 38 (58.5%)                               | 64 (98.5%)      | 40.0% |
| Q3       | Tom must cite which of the following if he uses them while writing his paper?   | 45 (67.7%)                               | 64 (98.5%)      | 30.8% |
| Q4       | In a paper that Steve is writing, he includes quotes, paraphrases, and summaries. Steve needs to cite ...   | 46 (70.8%)                               | 64 (98.5%)      | 27.7% |
| Q11      | Peter finds a great idea in an article, so he uses it in his paper. Peter doesn't cite the source of the idea because he has expressed it in his own words. Is this plagiarism?   | 47 (72.3%)                               | 65 (100.0%)     | 27.7% |
| Q13      | It is no problem for Judy to use other people's ideas in her research paper ...   | 36 (55.4%)                               | 53 (81.5%)      | 26.1% |
| Q17      | Which of the following is not a way for Jean to avoid plagiarism?   | 36 (55.4%)                               | 53 (81.5%)      | 26.1% |
| Q1       | A compilation of citations to books, journal articles, and reports about a particular topic or person is called ...   | 44 (67.7%)                               | 60 (92.3%)      | 24.6% |
| Q10      | Nancy copies a paragraph directly from an article she found. She cites the source without putting quotation marks. Is this plagiarism?  | 47 (70.8%)                               | 62 (95.4%)      | 24.6% |
| Q12      | Brenda copies a short passage from an article she found. She changes a couple of words, so that it's different from the original; this way she doesn't need quotation marks. She carefully cites the source. Is this plagiarism?          | 23 (35.4%)                               | 39 (60.0%)      | 24.6% |
| Q20      | Please read the original and paraphrased passage... Which of the following is true ...  | 10 (15.4%)                               | 25 (38.5%)      | 23.1% |
| Q6       | Jack did an excellent paper for his English class last year. He found out that his history assignment due next week has almost exactly the same requirements as for that English class paper. What is the best approach for John to take? | 50 (76.9%)                               | 63 (96.9%)      | 20.0% |
| Q2       | Which of the following statements is not true? John includes citations in his paper because...  | 34 (52.3%)                               | 44 (67.7%)      | 15.4% |
| Q8       | Tim's research paper is due tomorrow, and he hasn't done any work. He has the following thoughts. Which of them are considered plagiarism?  | 53 (81.5%)                               | 63 (96.9%)      | 15.4% |
| Q18      | Which of the following are valid excuses for Frank to plagiarize?   | 55 (84.5%)                               | 64 (98.5%)      | 14.0% |

science and technology was 12.9 (64.5%), and for business was 11.2 (56.0%). The mean post-test scores were 17.6 (88.0%), 17.1 (85.5%), and 17.0 (85.0%) respectively. The paired samples *t*-test results showed that there was a statistically significant difference ( $p < 0.05$ ) between the pre- and post-test scores within each discipline. However, a one-way ANOVA test did not show any statistical difference among the disciplines.

The data were analyzed to determine if there were differences between Asian and non-Asian students (see table 6). The mean pre-test scores were 12.7 (63.5%) and 14.1 (70.5%) respectively; however, an independent samples *t*-test showed the

difference was not statistically significant. The only question that showed a statistically significant difference was Question 1, which required students to identify a bibliography. The mean post-test scores were 17.2 (86.0%) for Asian students and 17.6 (88.0%) for non-Asian students, with no significant difference between the groups.

**Workshop Effectiveness**

As part of the post-test survey, students were asked to rate the effectiveness of the workshops. For both workshops, students overwhelmingly agreed that they had gained a better understanding of the concepts and would recommend the

**TABLE 6**  
**Frequency and Percent of Correct Answers for Plagiarism Pre- and Post-tests by Asian and Non-Asian Students**

| Question | Plagiarism Pre-test   |                           |                     | Plagiarism Post-test  |                           |                     |
|----------|-----------------------|---------------------------|---------------------|-----------------------|---------------------------|---------------------|
|          | Asian Students (n=49) | Non-Asian Students (n=16) | All Students (n=65) | Asian Students (n=49) | Non-Asian Students (n=16) | All Students (n=65) |
| Q1       | 30 (61.2%)            | 14 (87.5%)                | 44 (67.7%)          | 45 (91.8%)            | 15 (93.8%)                | 60 (92.3%)          |
| Q2       | 24 (49.0%)            | 10 (62.5%)                | 34 (52.3%)          | 31 (63.3%)            | 13 (81.2%)                | 44 (67.7%)          |
| Q3       | 32 (65.3%)            | 12 (75.0%)                | 44 (67.7%)          | 48 (98.0%)            | 16 (100.0%)               | 64 (98.5%)          |
| Q4       | 33 (67.3%)            | 13 (81.2%)                | 46 (70.8%)          | 48 (98.0%)            | 16 (100.0%)               | 64 (98.5%)          |
| Q5       | 40 (81.6%)            | 16 (100%)                 | 56 (86.2%)          | 44 (89.8%)            | 15 (93.8%)                | 59 (90.8%)          |
| Q6       | 38 (77.6%)            | 12 (75.0%)                | 50 (76.9%)          | 47 (95.9%)            | 16 (100.0%)               | 63 (96.9%)          |
| Q7       | 41 (83.7%)            | 13 (81.2%)                | 54 (83.1%)          | 41 (83.7%)            | 15 (93.8%)                | 56 (86.2%)          |
| Q8       | 41 (83.7%)            | 12 (75.0%)                | 53 (81.5%)          | 48 (98.0%)            | 15 (93.8%)                | 63 (96.9%)          |
| Q9       | 42 (85.7%)            | 15 (93.8%)                | 57 (87.7%)          | 46 (93.9%)            | 16 (100.0%)               | 62 (95.4%)          |
| Q10      | 33 (67.3%)            | 13 (81.2%)                | 46 (70.8%)          | 47 (95.9%)            | 15 (93.8%)                | 62 (95.4%)          |
| Q11      | 35 (71.4%)            | 12 (75.0%)                | 47 (72.3%)          | 49 (100.0%)           | 16 (100.0%)               | 65 (100.0%)         |
| Q12      | 18 (36.7%)            | 5 (31.2%)                 | 23 (35.4%)          | 29 (59.2%)            | 10 (62.5%)                | 39 (60.0%)          |
| Q13      | 24 (49.0%)            | 12 (75.0%)                | 36 (55.4%)          | 38 (77.6%)            | 15 (93.8%)                | 53 (81.5%)          |
| Q14      | 45 (91.8%)            | 14 (87.5%)                | 59 (90.8%)          | 49 (100.0%)           | 14 (87.5%)                | 63 (96.9%)          |
| Q15      | 15 (30.6%)            | 9 (56.2%)                 | 24 (36.9%)          | 45 (91.8%)            | 15 (93.8%)                | 60 (92.3%)          |
| Q16      | 26 (53.1%)            | 12 (75.0%)                | 38 (58.5%)          | 48 (98.0%)            | 16 (100.0%)               | 64 (98.5%)          |
| Q17      | 28 (57.1%)            | 8 (50.0%)                 | 36 (55.4%)          | 39 (79.6%)            | 14 (87.5%)                | 53 (81.5%)          |
| Q18      | 41 (83.7%)            | 14 (87.5%)                | 55 (84.5%)          | 48 (98.0%)            | 16 (100.0%)               | 64 (98.5%)          |
| Q19      | 28 (57.1%)            | 8 (50.0%)                 | 36 (55.4%)          | 30 (61.2%)            | 9 (56.2%)                 | 39 (60.0%)          |
| Q20      | 8 (16.3%)             | 2 (12.5%)                 | 10 (15.4%)          | 21 (42.9%)            | 4 (25.0%)                 | 25 (38.5%)          |

**TABLE 7**  
**Frequency and Percentage of Rating for the Effectiveness of the Workshops**

|  | Strongly Agree | Agree    | Undecided | Disagree | Strongly Disagree | Total Responses |
|--|----------------|----------|-----------|----------|-------------------|-----------------|
| <b>Research Process</b>  |                |          |           |          |                   |                 |
| I have a better understanding about how to do research now than before I attended this workshop. | 30 (43%)       | 39 (57%) | 0 (0%)    | 0 (0%)   | 0 (0%)            | 69 (100%)       |
| I will recommend this workshop to other international students.                                  | 39 (57%)       | 29 (42%) | 1 (1%)    | 0 (0%)   | 0 (0%)            | 69 (100%)       |
| <b>Plagiarism</b>  |                |          |           |          |                   |                 |
| I have a better understanding about plagiarism now than before I attended this workshop.         | 34 (52%)       | 27 (42%) | 2 (3%)    | 2 (3%)   | 0 (0%)            | 65 (100%)       |
| I will recommend this workshop to other international students.                                  | 36 (55%)       | 26 (40%) | 2 (3%)    | 1 (1%)   | 0 (0%)            | 65 (99%)*       |
| *Percentage may not add up to 100 due to rounding.   |                |          |           |          |                   |                 |

training to other international students (see table 7). This improvement was also reflected in the differences between the pre-test and post-test scores. The majority of the questions for both workshops showed statistically significant improvement according to the paired samples *t*-test results.

Students were also asked to rate the various components of the workshops. As shown in table 8, students rated all the components highly, but they tended to find lecture and examples to be more useful than group discussion or exercises.

While the post-test survey reflected students' immediate reaction to the workshops, the authors were also interested in learning about how students perceived the workshops after they had the opportunity to apply what they had learned to their academic work. Students were contacted within a year of completing the workshops for a follow-up interview. Thirty-six students participated in the voluntary interviews. Students were asked a total of four questions:

1. What is the most useful information you received from these two workshops?
2. How do these research workshops help you when you write your papers?
3. Are there additional topics you would like us to cover in these workshops?
4. If we have advanced workshops in the future, what kind of content would you like us to provide?

The first two questions dealt with content covered in the workshops, and the second two asked for suggestions for improving future offerings. (Results are given in table 9 and table 10.) According to the students, the most useful materials covered included an overview of the research process, how to locate and evaluate information, the general concept of plagiarism, and the techniques to avoid plagiarism. For future offerings, students expressed a desire to have more in-depth and hands-on practice in formatting citations and researching information. They also suggested discipline-specific training.

**Discussion**

**Research Process**

Lack of knowledge about different types of periodicals was a common problem for many international students. An informal survey of students as part of ice-breaking exercises indicated that many had never written a research paper prior to studying in the United States. This is consistent with the results reported by Hayes and Introna.<sup>11</sup> In some countries, especially those in Asia, educational assessment is primarily test-based and students are not necessarily required to conduct research. This could explain confusion about different types of research materials. As some of the students mentioned in the interviews:

“I am pretty new student when I came here last year. I had totally no idea how to get into all those resources so that’s very helpful as a first step.”

“I have never done any formal research before, so that was very, very useful for me.”

“... the most useful information I got is how to differentiate types of periodicals...also how to get use the research database, to build up the concept of where the resources and how to assess the resource.”

Responses to Question 11 indicated the students were not familiar with the role of librarians in the United States academic libraries. This might be due to the differences in library operations around the world. For example, closed-stacks are the norm in some countries, so students might perceive the primary function of librarians as paging materials. This might lead to their unfamiliarity with call numbers; that was reflected in responses to Question 8. In addition,

|  | Extremely Useful | Very Useful | Useful      | Undecided | Not Useful | Not Very Useful | Totally Useless | Total Responses |
|--|------------------|-------------|-------------|-----------|------------|-----------------|-----------------|-----------------|
| <b>Research Process</b>                            |                  |             |             |           |            |                 |                 |                 |
| Lecture  | 29<br>(42%)      | 29<br>(42%) | 11<br>(16%) | 0 (0%)    | 0 (0%)     | 0 (0%)          | 0 (0%)          | 69<br>(100%)    |
| Group Discussion                                   | 15<br>(22%)      | 26<br>(38%) | 25<br>(36%) | 2 (3%)    | 0 (0%)     | 0 (0%)          | 1 (1%)          | 69<br>(100%)    |
| Examples   | 26<br>(38%)      | 31<br>(45%) | 11<br>(16%) | 0 (0%)    | 1 (1%)     | 0 (0%)          | 0 (0%)          | 69<br>(100%)    |
| Exercises  | 22<br>(32%)      | 32<br>(46%) | 14<br>(20%) | 1 (1%)    | 0 (0%)     | 0 (0%)          | 0 (0%)          | 69<br>(99%)*    |
| <b>Plagiarism</b>                                  |                  |             |             |           |            |                 |                 |                 |
| Lecture  | 27<br>(42%)      | 21<br>(32%) | 16<br>(25%) | 0 (0%)    | 0 (0%)     | 1 (1%)          | 0 (0%)          | 65<br>(100%)    |
| Group Discussion                                   | 17<br>(26%)      | 14<br>(22%) | 26<br>(40%) | 5 (8%)    | 2 (3%)     | 1 (1%)          | 0 (0%)          | 65<br>(100%)    |
| Examples   | 26<br>(40%)      | 21<br>(32%) | 17<br>(26%) | 0 (0%)    | 0 (0%)     | 1 (1%)          | 0 (0%)          | 65<br>(99%)*    |
| Exercises  | 20<br>(31%)      | 20<br>(31%) | 22<br>(34%) | 2 (3%)    | 0 (0%)     | 1 (1%)          | 0 (0%)          | 65<br>(100%)    |
| *Percentage may not add up to 100 due to rounding. |                  |             |             |           |            |                 |                 |                 |

**TABLE 9**  
**Useful Information Received From the Workshops And How the Information Helped in Actual Writing**

| What is the most useful information you received from these two workshops? |                | How do these research workshops help you when you write your papers? |                |
|--|----------------|--|----------------|
| Concept  | # of Responses | Concept  | # of Responses |
| How to locate and use online resources                                     | 20             | Locating/Finding information   | 19             |
| Concept of plagiarism  | 15             | Citing sources   | 11             |
| How to avoid plagiarism  | 12             | Style guides   | 11             |
| How to locate and use information  | 11             | Avoiding plagiarism  | 7              |
| Evaluating resources   | 11             | Selecting a topic  | 6              |
| How to do research   | 11             | Format of academic paper   | 5              |
| Paraphrasing, summarizing, and quoting                                     | 11             | Research process   | 4              |
| How to cite  | 11             | Evaluating information   | 2              |
| How to formulate a research question                                       | 7              | Utilizing reference materials  | 1              |
| Different citation styles  | 7              | Familiarity with scholarly materials                                 | 1              |
| Library services   | 5              | Paraphrasing   | 1              |
| Different types of periodicals   | 4              | Citation software  | 1              |
| Interactive workshop activities  | 3              | Tool for organizing research strategy                                | 1              |

students may use libraries largely as a place for studying instead of conducting research and thus may have limited exposure to library services like reference, user education, and research assistance. Students were also unaware of some of the library operations, such as interlibrary loan, covered in Question 15. The unfamiliarity with library operations is reflected in some of the interview responses:

“The differences between Chinese and American libraries have given me a difficult time in using resources in libraries comfortably. Therefore, the introduction about all kinds of functions of the libraries, such as, Minerva, research databases,

UA delivery and interlibrary loan, provides shortcuts for me to access the information I am looking for.”

“I know the EDeliver [sic], this is really useful for my research... now I find that the library can photocopy them for me and get them for free.”

“In Albany I used inter-library loan the first time in my life and I will certainly use it more often in the future.”

Given the emphasis on research in the doctoral programs, the authors anticipated that doctoral students would have a better understanding of the process and the tools needed for researching

| Are there additional topics you would like us to cover in these workshops? |                | If we have advanced workshops in the future, what kind of content would you like us to provide? |                |
|--|----------------|---|----------------|
| Suggestion   | # of Responses | Suggestion  | # of Responses |
| Style guides   | 11             | Academic writing  | 9              |
| Citation practice  | 8              | Discipline specific instruction   | 9              |
| Subject-specific workshop  | 4              | More advanced research skills   | 7              |
| Citation software  | 4              | Advanced hands-on citation practice   | 7              |
| Library services   | 2              | Other (patent, atmospheric, timing, diversity)  | 4              |
| Other (Library tour, SAS/SPSS)   | 2              | Advanced research exercises   | 3              |
| Database Searching   | 1              | Citation software   | 2              |
| Academic writing   | 1              | Workshop by academic level  | 2              |
| Writing a dissertation   | 1              | Topic selection for thesis and dissertation   | 1              |
| Academic level based workshop  | 1              | LC call number  | 1              |
| Customized workshop  | 1              | Statistical software  | 1              |

literature in their fields than master's students. However, the results showed no difference between these two groups. Looking at the demographic information, the authors noticed that the majority of the doctoral students in the study were in their first semester or their first year in the United States. Essentially they are at the same level of academic experience as master's students.

International graduate students at the University at Albany are more heavily represented in the fields of business, public affairs, and public health. However, our workshop attendees came mostly from the fields of education, science and technology, and business. The authors would have expected more students from the fields of humanities and social sciences because these disciplines tend to be more writing-intensive. The authors speculate that individual faculty members in some fields may have encouraged

international students to attend. Science and technology doctoral students in some departments are expected to publish research papers prior to completion of their degrees, which might have motivated them to participate in the workshops.

When asked if they had used the library for their research before, 41 replied "yes" and 29 replied "no." However, there was no statistical difference in their test scores. This may be because students' previous experience with the library was limited to using it as a study space or for accessing course materials through physical or electronic reserves. These types of activities would not require them to engage in library research. In hindsight, it would have been more informative to gather qualitative data regarding the actual tasks that they performed using the library.

The authors hypothesized that students who have been in the United States longer would have a better grasp

of the research process. However, there was no relationship between the duration of students' studying in the United States and their understanding of the research process. There are several possible explanations. Most of the study participants had been enrolled for less than two years. Some disciplines, such as science and technology, focus on laboratory work and require little secondary research. Other programs (for example, the master's in education) structure their curriculum such that research courses are taken toward the end. Thus, for the first few semesters, those students would have very little exposure to academic research.

### **Plagiarism**

Students' lack of experience in writing research papers was reflected in their lack of knowledge about citation styles and compiling bibliographies. One student commented in the interview, "Because in China actually I have no idea about how to write academic writing. And American and China have totally different discipline and rules about academic writing."

Confusion about why, when, and how to cite might be caused by the difference in culturally acceptable writing styles and citation requirements between the United States and students' home countries. For example, in some Asian countries, inclusion of an author's original work in quotation marks is sufficient attribution and a citation is not necessarily required. Also, copying words verbatim instead of paraphrasing is a way to show respect for the original author. Students' comments reflect these issues:

"...with that workshop I got more information about the standard of plagiarism and what is called plagiarism here. It's not the thing that we call plagiarism in our country, some of it."

"...before I come to UAlbany I don't have a clear mind about what pla-

giarism is and some of the things I thought might not be plagiarism actually is plagiarism here, at least here in the United States. "

"...in China we don't care about citation too much. Sometimes we just borrow the points from other authors into our paper and we do not give the author some credit about these points. So we don't care about that too much."

During the group discussion about using Internet objects, such as images, graphs, or video clips, the authors observed that students did not understand the difference between the ethical issues surrounding plagiarism and the legal issues concerning copyright. This was also demonstrated in responses to Question 13, where many students answered that one would need permission from an author to incorporate the author's ideas in his or her paper.

A significant portion of the workshop was devoted to teaching students how to paraphrase texts, and post-test scores did show statistically significant improvement; however, students still did poorly answering questions dealing with how to appropriately paraphrase a passage. It is clear to us that the students still had a high level of discomfort in expressing ideas taken from original sources in their own words. This is also revealed in their requests for more hands-on practice.

While the length of time students study in the United States did not have any impact on their knowledge about the research process, there was a weak positive relationship between the time factor and students' knowledge of plagiarism. Both findings suggest that faculty cannot assume that, just because students have been studying in the U.S. academic environment for some time, they will necessarily be well prepared to write research papers or dissertations.

Based on the literature pertaining to academic integrity, the authors expected that



there would be a difference in knowledge of plagiarism among the disciplines. Stephen E. Newstead, Arlene Franklyn-Stokes, and Penny Amstead found that there was a difference in cheating behavior among students from different disciplines. This study did not specifically address plagiarism but looked at a variety of self-reported types of cheating. The study found higher levels of academic dishonesty among business and engineering students and lower levels among humanities students with education, with social and physical sciences between. They theorized that the differences may stem from the performance-driven nature of professional programs versus the emphasis on learning for its own sake in the humanities.<sup>12</sup> However, our results did not show statistical differences among disciplines. This might reflect the limitation of the small sample size.

### *Effectiveness of Workshops*

The authors realized the post-test improvement could be very short-lived, so they contacted workshop attendees several months later to explore how students used the information they had learned at the workshops. In general, students found the workshops to be beneficial and have a lasting impact. The students reported that they were applying what they had learned many months afterward. Comments included:

“... when I am writing my research paper now, I am more aware of the academic sources and the style itself.”

“Actually, when I write my bibliography, I pull out that sheet of paper the workshop gave to me that tells the different style, the APA and Chicago Manual style, I pull out that style and type all my articles just following one style and do it consistently to help me a lot.”

“...when I am doing my papers, I pay attention on whether my citations will trigger plagiarism or not.”

In addition, many of the students who had been in the United States for several semesters commented that they wished they had the opportunity to attend these types of workshops earlier in their academic experience. Some students expressed that American students could also benefit from these workshops. This was echoed by some faculty members who requested that these workshops be open to all students. At the University at Albany, we have an information literacy general education requirement for undergraduates but not for graduate students. An overview workshop like this might be useful to all graduate students.

Because students have different learning styles, they may respond to some instructional methods better than others. Asian students in particular tended to value more passive activities more highly than active learning exercises. Possible reasons include discomfort in speaking in English in front of their peers, greater experience with lecture-based instruction in their home countries, and unfamiliarity with discussion topics. Interestingly, when asked for suggestions for additional training, many students requested more in-depth content and hands-on exercises. They especially wanted to have a session dedicated to practicing writing citations from the original research materials, as well as paraphrasing and summarizing. This request shows their awareness of their own weaknesses and their discomfort with academic writing. It is hard to imagine American students demanding this kind of workshop. Interview responses also revealed this need:

“I think you should make us do more exercise on how to make quotation and citations”

“...I needed to quote something, especially quote some Internet things, so I needed to know how to write the footnote or something. It's very important that I know that is the MLA and APA...”

One serious problem revealed during the interviews was a lack of systematic and continuous support for academic writing on our campus. The peer tutors at the campus Writing Center offer advice on the organization and structure of a paper, but they do not proofread or copy edit, which are services needed by international students. Faculty members often give students lower scores because of grammatical issues but don't take the time to teach the students how to improve their work. Faculty assume that the Writing Center provides this support and students should take advantage of it. The campus also offers an optional credit-bearing academic writing course for international students. Due to schedule conflicts, not all students can take advantage of it. Even students who have taken it expressed the need for further support once the class was over.

Students raised the issue of faculty awareness and willingness to engage with issues of plagiarism. Several students expressed that faculty seemed disinclined to examine students' work carefully, so plagiarism may go undetected. In cases where plagiarism was detected, the faculty failed to provide any guidance about how to avoid the problem. Patrick G. Love and Janice Simmons reported that students perceived faculty indifference to the issue of plagiarism as tacit permission to be lax about paraphrasing and citing sources.<sup>13</sup> One student mentioned in our interview, "... I still got some problems about how to avoid plagiarism. And also when the professor looked at the articles he never told us that you've got a problem of plagiarism. Maybe they hardly notice that or they don't have time to figure out how many works we've cited or you know how many paragraphs are cited. So they seldom look at the original source, that is my problem."

Another request voiced by international students was a desire for discipline-specific workshops. The authors agree that this would be beneficial to students as it would allow the instructors to tailor the content to the subject areas, so students could be

taught how to use databases and citation style guides pertaining to their fields. We have a bibliographic instruction program that allows faculty to request training for their students from subject librarians. However, this type of instruction does not focus on the particular needs of international students. To provide discipline-specific workshops for international students, we would need participation from all subject librarians. Given the small number of students in each discipline likely to attend the workshop, it may be difficult to justify the time involved.

The responses from the interviews also informed us that students would like training in the use of citation software. EndNote, the most frequently mentioned software, is available on campus through Information Technology Services, which is not a library department and does not provide training for the non-Microsoft applications that it provides. The library started to provide training for Zotero, an open-source citation management system, a few months after the authors began offering the workshops. Many international students were not aware of Zotero until the authors promoted it. In addition, the library offers classes on NoodleBib, a citation generator.

In addition to citation software, students also express a need for training with various types of software. Most often mentioned were statistical packages, such as SPSS and SAS. Like EndNote, these applications are provided by Information Technology Services, and very limited support is available on campus. This is a particular issue for doctoral students because faculty tend to assume that students have mastery of these applications prior to entering the programs.

Although the students attending the workshops welcomed the opportunity, attendance was low considering the entire international student enrollment. This could be due to scheduling conflicts or inadequate marketing. Another observation was that students may be overconfident in their abilities. For example, one student

who had been encouraged by a faculty member commented, "I listened same lecture during freshmen orientation... and undergraduate school... why should I attend it again? really waste of time..." The same student had the lowest scores on both the pre- and post-tests.

### **Conclusion**

The purpose of our study was to determine whether the workshops would help international students in their academic writing. Overwhelmingly the authors found strong evidence to demonstrate that the training had a positive impact on students' understanding of the research process and plagiarism, including academic integrity.

The authors see opportunities to provide additional training for students particularly in the area of citation practice and, in fact, offered a third workshop devoted to this topic beginning in the fall of 2009. In light of the student demand for discipline-specific instruction, this is an area for future exploration. For this initiative to be successful, it would require participation from additional subject librarians as well as collaboration with the teaching faculty.

Although the authors found significant differences in pre- and post-test scores among attendees as a whole, the small sample size of this case study may have prohibited us from seeing differences in the various groups of students. Future research could expand on these findings if the workshops are made compulsory as recommended by Handa and Fallon.<sup>14</sup>

This study revealed that international students had a number of unmet needs. To fully support the academic development of international students, it is imperative for a variety of campus services to work together in a coordinated manner. The Office of International Student and Scholar Services, the instructor of Academic Writing, the Writing Center, the Information Technology Services, the teaching faculty, and the librarians need to work cohesively to ensure that students' concerns are addressed. As Handa and Fallon asserted, institutions that admit international students and benefit from their tuition dollars have an ethical obligation to understand the issues that might impede international students' success and provide a mechanism to overcome them.<sup>15</sup>

## Appendix I: Research Process

### I. Pre- and Post-test Questions

1. Background information on topics in the education field can be found in...
  - A. Subject encyclopedias
  - B. Books on the topic
  - C. A and B
  - D. I don't know
2. To find out if our Libraries own books about your research topic, you would use?
  - A. JSTOR
  - B. Minerva
  - C. Education Fulltext
  - D. I don't know
3. In the library, books are arranged by a classification system, which tends to shelve books together by?
  - A. Author
  - B. Publication year
  - C. Subject
  - D. I don't know
4. Scholarly journals
  - A. Publish mostly fiction
  - B. Contain a large amount of advertising
  - C. Have editors and reviewers who evaluate the articles
  - D. I don't know
5. To find information about very recent events, the best place to look is
  - A. A book
  - B. A scholarly journal
  - C. A newspaper
  - D. I don't know
6. To identify a scholarly journal article on your topic, you could use
  - A. A research database
  - B. A dictionary
  - C. A style guide
  - D. I don't know
7. All high quality information
  - A. Can always be found with Google
  - B. May not be available on the Web
  - C. May be obtained by anyone for free
  - D. I don't know
8. What is a call number?
  - A. Something you enter in your cell phone
  - B. The "address" that tells you where a book is located in the library
  - C. The number you enter to access MyUALbany
  - D. I don't know

9. Popular magazines
- A. Appeal to a wide audience
  - B. Are not peer-reviewed
  - C. Both A and B
  - D. I don't know
10. Research produced by faculty at universities and colleges is most often published
- A. In books and scholarly journals
  - B. On the Internet
  - C. In general interest magazines
  - D. I don't know
11. A librarian can help you to
- A. Define your research topic
  - B. Find appropriate materials owned by the library
  - C. Identify additional materials that might be borrowed from other libraries
  - D. A, B, and C
  - E. I don't know
12. If you need help finding research materials, you could
- A. Visit the Libraries' Web site
  - B. Contact a librarian
  - C. A and B
  - D. I don't know
13. Minerva can be used to
- A. Register for classes
  - B. Find out if the library has books on your topic
  - C. Borrow a laptop computer
  - D. I don't know
14. Which of the following types of resources are often not reviewed by editors
- A. Popular Web sites
  - B. Scholarly journals
  - C. Books
  - D. Newspapers
  - E. I don't know
15. Interlibrary Loan
- A. May not be used by graduate students
  - B. Can be used to borrow books from other libraries
  - C. Is free to students
  - D. B and C.
  - E. I don't know
16. How would you determine whether the information you have found is likely to be good quality research information?
- A. By the type of source (such as research journal or newspaper)
  - B. By the fact that it is an Internet site linked from another Web page
  - C. By the fact that it is the first full-text article retrieved
  - D. I don't know

17. What are some clues to whether a Web site is reliable?
- A. Sponsor of the site, author, bias, currency
  - B. Number of graphics on the site
  - C. Referral by friends
  - D. I don't know
18. Peer review
- A. Is a way to make new friends
  - B. Is a method for the government to determine how to allocate research dollars
  - C. Is a process used to evaluate the merit and accuracy of research findings in scholarly publications
  - D. I don't know
19. What is a clue that you are looking at a scholarly journal?
- A. Articles contain a substantial bibliography
  - B. The author(s) of the articles are not listed
  - C. There are lots of colorful advertisements
  - D. I don't know
20. Journal articles
- A. Are less reliable than blogs
  - B. Usually address a fairly narrow topic
  - C. Are good for getting an overview of a discipline
  - D. I don't know

Note: These test questions were compiled based on the following source:  
Criminal Justice Research: A Self-Paced Tutorial, University at Albany, SUNY  
<http://library.albany.edu/subject/tutorials/criminal/>

## II. Demographic questions for the pre-test

My terminal number is:

I have used the University Libraries to do research before attending this workshop:

- A. yes
- B. no

What country are you from?

What program/department are you in?

I'm a

- A. Undergraduate student
- B. Graduate student (master's)
- C. Doctoral student
- D. Other (please specify)

How many semesters have you studied in the United States?

How many semesters have you studied at University at Albany, SUNY?

**III. Workshop feedback questions for the post-test**

My terminal number is:

I have a better understanding about how to do research now than before I attended this workshop..

- A. Strongly agree
- B. Agree
- C. Undecided
- D. Disagree
- E. Strongly disagree

I will recommend this workshop to other international students.

- A. Strongly agree
- B. Agree
- C. Undecided
- D. Disagree
- E. Strongly disagree

Please rate the usefulness of each of the following components of this workshop.

(1. Extremely useful; 2. Very useful; 3. Useful; 4. Undecided; 5. Not useful; 6. Not very useful; 7. Totally useless)

- Lecture
- Group discussion
- Examples
- Exercises

Other comments and suggestions on this workshop:

## Appendix II. Plagiarism

### I. Pre- and Post-test Questions

1. A compilation of citations to books, journal articles, and reports about a particular topic or person is called:

- A. bibliography
- B. glossary
- C. index
- D. thesaurus
- E. I don't know

2. Which of the following statements is not true? John includes citations in his paper because

- A. citations add credibility to his arguments
- B. citations take up space in his paper
- C. citing sources is what scholars do when they are engaging in written academic conversations
- D. John's readers should be able to determine the accuracy of his sources
- E. I don't know

3. Tom must cite which of the following if he uses them while writing his paper?

- A. An interview he heard on the radio

- B. A comic strip he read in a magazine
- C. Something he read on a Web site
- D. None of the above
- E. All of the above
- F. I don't know

4. In a paper that Steve is writing, he includes quotes, paraphrases, and summaries. Steve needs to cite

- A. quotes only
- B. quotes and paraphrases only
- C. paraphrases and summaries only
- D. quotes, paraphrases, and summaries
- E. I don't know

5. John was told by his professor that he could discuss his research project with his classmates and turn in his own paper. John worked with one of his classmates. Can John and his classmate turn in two copies of the same research paper?

- A. Yes
- B. No
- C. I don't know

6. Jack did an excellent paper for his English class last year. He found out that his history assignment due next week has almost exactly the same requirements as for that English class paper. What is the best approach for John to take?

- A. He should just turn in his English paper as this history class assignment. He got a good grade on the English paper and it's his work anyway
- B. Write the history paper from scratch
- C. Talk to his history professor and see what his options are. Maybe he can turn in this paper, or parts of it for this assignment
- D. I don't know

7. Annie does not need to give a citation to a passage that she takes from someone else's work if:

- A. it is on a Web site and the URL ends in .edu
- B. it is a scholarly research article
- C. it is from her friend's essay
- D. none of the above
- E. all of the above
- F. I don't know

8. Tim's research paper is due tomorrow, and he hasn't done any work. He has the following thoughts. Which of them are considered plagiarism?

- 1. buying a paper from an Internet essay service
- 2. borrowing his friend's paper, changing some words, and inserting a few of his own ideas
- 3. copying phrases and sentences from a variety of sources and putting them together

- A. 1 and 2
- B. 2 and 3
- C. 1 and 3
- D. all of the above
- E. I don't know.



9. It is acceptable for David to incorporate graphics, videos, and audio files from various sources in his project if
- A. David got them from his textbook
  - B. they are available on the Internet
  - C. they help Dave illustrate a point in his paper
  - D. David cites the original sources
  - E. I don't know
10. Nancy copies a paragraph directly from an article she found. She cites the source without putting quotation marks. Is this plagiarism?
- A. yes
  - B. no
  - C. I don't know
11. Peter finds a great idea in an article, so he uses it in his paper. Peter doesn't cite the source of the idea because he has expressed it in his own words. Is this plagiarism?
- A. yes
  - B. no
  - C. I don't know
12. Brenda copies a short passage from an article she found. She changes a couple of words, so that it's different from the original—this way she doesn't need quotation marks. She carefully cites the source. Is this plagiarism?
- A. yes
  - B. no
  - C. I don't know.
13. It is no problem for Judy to use other people's ideas in her research paper
- A. if she does not copy the exact words
  - B. if she is granted permission
  - C. if she gives them credit
  - D. I don't know
14. Kathy does not need to provide a citation if she
- A. includes a piece of unpublished work by her friend in her paper
  - B. embeds a video clip taken from the Web in her PowerPoint slides
  - C. incorporates her professor's statements in her own Web site for her assignment
  - D. uses common knowledge in her essay
  - E. I don't know
15. Which of the following is not a citation style?
- A. APA
  - B. PDA
  - C. MLA
  - D. Chicago
  - E. I don't know.
16. The two major citation styles used in college research papers are:
- A. DSL and AOL
  - B. APA and MLA
  - C. MLS and AMA

- D. STM and PDA
- E. I don't know

17. Which of the following is not a way for Jean to avoid plagiarism?

- A. reorder sentences and change descriptive words as she reads
- B. document the sources she uses
- C. take notes on where she found specific ideas
- D. use quotation marks around exact quotations
- E. I don't know

18. Which of the following are valid excuses for Frank to plagiarize?

- A. He doesn't know how to cite
- B. He doesn't know what plagiarism means
- C. He doesn't know the penalty for plagiarism
- D. He doesn't remember where he finds the information
- E. None of the above

19. What is the periodical title for the following citation:

Littlemore, J., & Low, G. (2006). Metaphoric competence, second language learning, and communicative language ability. *Applied Linguistics* 27(2), 268-294.

- A. Metaphoric competence, second language learning, and communicative language ability
- B. Littlemore, J., & Low, G.
- C. Applied Linguistics
- D. 27(2)

20. Please read the original and the paraphrased passage below.

Original passage taken from Glanz, James. "Billions in Oil Missing in Iraq, U.S. Study Finds." *New York Times* 12 May, 2007, late ed.: A1+

Between 100,000 and 300,000 barrels a day of Iraq's declared oil production over the past four years is unaccounted for and could have been siphoned off through corruption or smuggling, according to a draft American government report.

Paraphrased passage:

Based on an American government report, over the past four years each day between 100,000 and 300,000 barrels of Iraq's oil production is unaccounted for.

Which of the following is true for the paraphrased passage?

- A. A citation is not needed because the original source is a newspaper, not a book or a journal
- B. It is a word-for-word plagiarism
- C. Nothing is wrong with the paraphrase except lacking a citation
- D. I don't know

Note: These questions were compiled using the following sources:  
"Carlos and Eddie's Guide to Bruin Success with Less Stress" UCLA Library  
<http://unitproj.library.ucla.edu/col/bruinsuccess/03/quiz.cfm>  
"Charleston Southern University Plagiarism Tutorial"  
<http://www.csuniv.edu/library/Plagiarism/index.htm>

“Understanding and Avoiding Plagiarism: A Self-Directed Tutorial” SFU  
Library  
<https://www.indiana.edu/~istd/>

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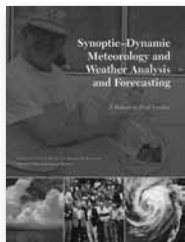
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1. Institute of International Education, "Open Doors 2009 Online: Report on International Educational Exchange." Available online at <http://opendoors.iienetwork.org/>. [Accessed 26 January 2010].
2. Niall Hayes and Lucas D. Introna, "Cultural Values, Plagiarism, and Fairness: When Plagiarism Gets in the Way of Learning," *Ethics & Behavior* 15, no. 3 (July 2005): 213–31.
3. Neera Handa and Wayne Fallon, "Taking the Mountain to Mohammed: Transitioning International Graduate Students into Higher Education in Australia," *International Journal for Educational Integrity* 2, no. 2 (Dec. 2006): 29–42.
4. James R. Lund, "Plagiarism: A Cultural Perspective," *Journal of Religious & Theological Information* 6, no. 3/4 (2004): 93–101.
5. Colin Sowden, "Plagiarism and the Culture of Multilingual Students in Higher Education Abroad," *ELT Journal* 59, no. 3 (July 2005): 226–33.
6. Dilin Liu, "Plagiarism in ESOL Students: Is Cultural Conditioning Truly the Major Culprit?" *ELT Journal* 59, no. 3 (July 2005): 234–41.
7. Phan Le Ha, "Plagiarism and Overseas Students: Stereotypes Again?" *ELT Journal* 60, no. 1 (Jan. 2005): 76–78.
8. Lise Buranen, "A Safe Place: The Role of Librarians and Writing Centers in Addressing Citation Practices and Plagiarism," *Knowledge Quest* 37, no.3 (Jan.–Feb. 2009): 24–33.
9. Lynn D. Lampert, *Combatting Student Plagiarism: An Academic Librarian's Guide* (Oxford: Chandos Publishing, 2008).
10. Maud Mundava and Jayati Chaudhuri, "Understanding Plagiarism: The Role of Librarians at the University of Tennessee in Assisting Students to Practice Fair Use of Information," *College & Research Libraries News* 68, no. 3 (Mar. 2007): 170–73.
11. Hayes and Introna, "Cultural Values," 213–31.
12. Stephen E. Newstead, Arlene Franklyn-Stokes, and Penny Armstead, "Individual Differences in Student Cheating," *Journal of Educational Psychology* 88, no. 2 (June 1996): 229–41.
13. Patrick G. Love and Janice Simmons, "Factors Influencing Cheating and Plagiarism Among Graduate Students in a College of Education," *College Student Journal* 32, no. 4 (Dec. 1998): 539–50.
14. Handa and Fallon, "Taking the Mountain to Mohammed," 29–42.
15. Ibid.

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