Professor Gisela Jia, with writing fellow Rebio Diaz, assessed the impact of WAC practices on student learning in her Spring 2009 Child Psychology class.

### **QUESTION**

I [Professor Jia] evaluated the performance of two sections of the same course – comparing one class that used WAC practices, in particular the double entry journal, with one that did not.

### THE ASSIGNMENTS

Each double entry journal consisted of at least two pieces of short writing. One piece was to be from the chapter just completed and the other from the chapter that was due on the date of the journal. I asked each student to prepare journal entries with two columns – in the column on the left would be a quote or a paragraph from the textbook, and on the right students were to write their reflections on this quote. The quotes could consist of a research finding, a psychological theory, a hypothesis, or a question that needs to be further investigated. Student reflections were to focus on how the quoted information offered them new insights or a deeper understanding of a human behavior (e.g., a child who you know), helped generate new questions, adjusted their approach to children, or influenced their future interest of study or even career choice. Students had the freedom to choose their own quote and had multiple options of how to respond. Journal entries were graded using a check or check plus. These journal entries in total comprised 15% of each student's grade.

## METHOD FOR ADDRESSING QUESTIONS

The WAC class consisted exclusively of freshmen in the Freshman Year Initiative (FYI) program while the other class had students at various levels who had generally had been at Lehman for a longer time and on the whole had taken more Psychology classes. Since the class that did not use the double entry journals had been in school longer and had more background in the discipline, I based some of my conclusions about the effect of WAC on my students' learning on the changing size of the performance gap between these two classes over the course of the semester. In examining the performance of my students, I compared their knowledge on multiple choice and short answer questions on three exams, as well as their writing in one assigned paper.

#### **FINDINGS**

# Multiple Choice

For exam 1, the WAC class scored lower than the non-WAC class (70.35% vs. 74.86%). This was not surprising given that the non-WAC students had been in college longer and had taken more psychology classes. However, for exam 2, the gap narrowed (73.86% vs. 74.09%), and for exam 3, the two classes achieved identical average scores (72.1% vs. 72.1%).

# **Short Answer Sections and papers**

For exam 1, the WAC class scored lower than the non-WAC class (63.78% vs. 71.14%), and the trend continued for exam 2 (53.42% vs. 60.68%). However, for exam 3, the trend reversed, with the WAC class scored higher than the non-WAC class (93.53% vs. 87.93%). Performance on the final paper showed the same trend, WAC students outperformed the non-WAC students (82.5% vs. 76.2%).

In addition Rebio and I made the following observations:

- (1) Students in the WAC class communicated more with the Instructor in comparison to students in the non-WAC class. The communications were conducted in the form of student-initiated questions and discussions in the class and after the class.
- (2) More students in the WAC class expressed interests in taking other courses taught by the instructor, and orally conveyed their satisfaction with the course to the instructor.
- (3) When given a choice to read and write about a more challenging paper (Paper 2 on neighborhood effects on child development) and a less challenging paper (Paper 1 one gender differences in cognitive abilities) to fulfill their Final Paper requirement, the overwhelming majority of the students (80%) in the WAC chose to write about the more challenging paper topic, in comparison to 20% of students in the non-WAC class.

### **CONCLUSIONS**

These results indicated that as the semester went along, the WAC class caught up with the non-WAC class and surpassed it in some areas. However, because of these findings were not statistically significantly (likely due to the small sample sizes), these findings are not direct evidence to prove that the double-entry journal was effective. Nevertheless, the trends found are consistent with the hypothesis that the double-entry journal assignment improved student learning. This is a necessary step to a further study that may generate direct evidence to support the hypothesis.

# **NEXT STEPS**

In summary, this small-scale pilot study generated some findings that are consistent with the hypothesis that double-entry journals as low-stakes writing assignments can effectively improve student learning in the content area. The learning is reflected in knowledge demonstrated through both writing and non-writing assessment tasks, as well as students' interest and motivation in the content area. However, the findings also indicated that double-entry journal writing is a specific type of writing, from which the writing skills practiced may not always be generalized to writing longer papers of a more comprehensive nature. In the future, the instructor intends to revise certain requirements of the double-entry journals to help students bridge the two types of writing.