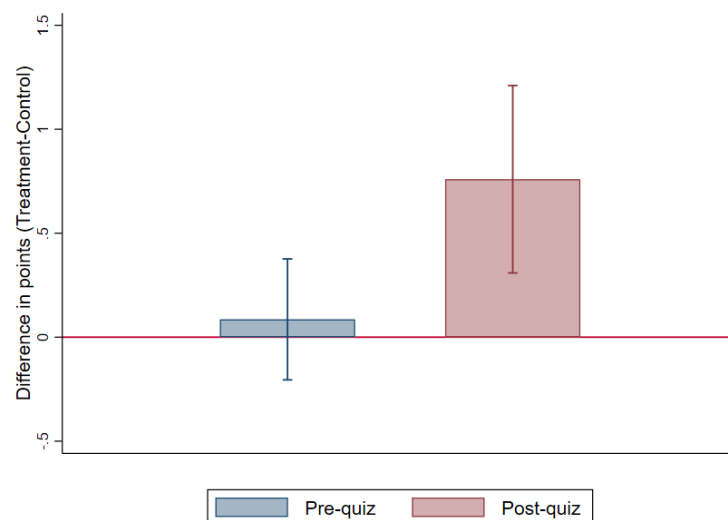


As part of the requirements in the course on the integration of research, teaching, and learning, I developed and implemented a very simple classroom experiment to test if summarizing key take-away points at the end of class reinforces learning. Having students summarize the key take-away points in class is important because it will allow them to think about what they have learned and sum it up coherently. Students will be able to connect all the pieces of the lessons to form a big picture. This way, they should leave the class remembering the key take-away points they had to say or write. I implemented the experiment in the recitation session of an upper-level Econometrics class. The class lecture for the day was on Instrumental Variables. At the beginning of class, students were given a pre-quiz (5 questions), after which the lesson for the day was taught. Shortly before the end of the class, randomly selected students were required to summarize key take-away points (treatment group) on paper (to avoid spillover), after which a post-quiz was administered to all students (same question as pre-quiz). Students were told points earned during the quiz did not count towards final grades. See the results of the tests below.



For the pre-quiz, there is no statistically significant difference between the outcomes of students in the control and treatment group respectively. Overall, students seem to have increased their knowledge of instrumental variables after the lecture. Results on the post-test were better than the pre-quiz for all students. However, comparing the pre and post-quiz for students in both groups, students in the treatment group performed better on the post-quiz. The difference in the post-quiz is statistically significant. While not the gold standard, the experiment provides some evidence that having students summarize key take-away points after a lecture might be effective in reinforcing learning.

Select comments from students:

- “Great teaching method. The quizzes are a great way to have students reinforce the concepts. Love her enthusiasm!”
- “One of the best recitations I’ve been to, five stars”
- “Good engagement of class and understanding of class material”
- “I liked how interactive you were with the class”
- “Did a good job explaining and emphasizing the main points of today’s lecture. Cared whether we understood the concept”