Over two years, we explored whether a novel graduate teaching course could weave together three programs that would simultaneously:
1. Enhance graduate TAs’ teaching skills,
2. Investigate undergraduates’ learning and educational experiences, and
3. Develop research in teaching and learning sciences.

First, we aimed to improve the teaching competence of Psych 100 TAs by redesigning a graduate course to focus on teaching skills, pedagogy, and assessment. We also developed TAs’ autonomy and relatedness by helping them earn teaching certifications, asking veteran TAs to mentor new TAs, and developing a wiki with teaching and learning resources.

Second, interested TAs used their new training in assessment to develop direct measures of student learning in Psych 100, which we embedded into Compass. They also redesigned Early Informal Feedback and ICES tools to collect indirect measures of attitudes about educational experiences, the former of which was also embedded into Compass.

Third, we provided training and support to Psych 100 TAs interested in conducting research in teaching and learning sciences. These TAs developed empirical research in association with undergraduate and graduate courses, conducted the research and analyzed findings. Finally, the TAs have been disseminating the results via conference posters, presentations, and publications.

There were several positive outcomes from this project. The changes to the teaching course were associated with more TAs being on the Excellent List and earning teaching certifications (for two years). TAs’ preferred training activities that would support immediate needs over more time-consuming or longer-term activities, which may explain the decline in teaching certificates in 2010. The TAs’ assessment work revealed differences in learning across Psych 100 TAs and showed students’ biases in the course materials. Thus, we decided to use students’ love of active learning to encourage them to read the text. When one section of EOP students took online practice quizzes to understand the text material, they also earned higher exam grades. Lastly, the TAs’ empirical research revealed that blocking concepts in online practice quizzes further augmented student learning, including in vulnerable populations.

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- 1. Changes in Teaching Skills
- 2. Student Learning in Psych 100
- 3. Aid Teaching & Learning Research?

Discussion
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Implications
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Acknowledgments
Many thanks to the Provost’s Initiative for Teaching Advancement, Teaching Advancement Board, Center for Teaching Excellence, Psychology Department, Dr. Sandra Goss Lucas, the Psych 100 TAs and undergraduate students, and the APS Fund for the Teaching and Public Understanding of Psychological Science.