

REFLECTING ON TWO YEARS OF COLLABORATIVE TESTING: students' learning, feedback, and lived experiences



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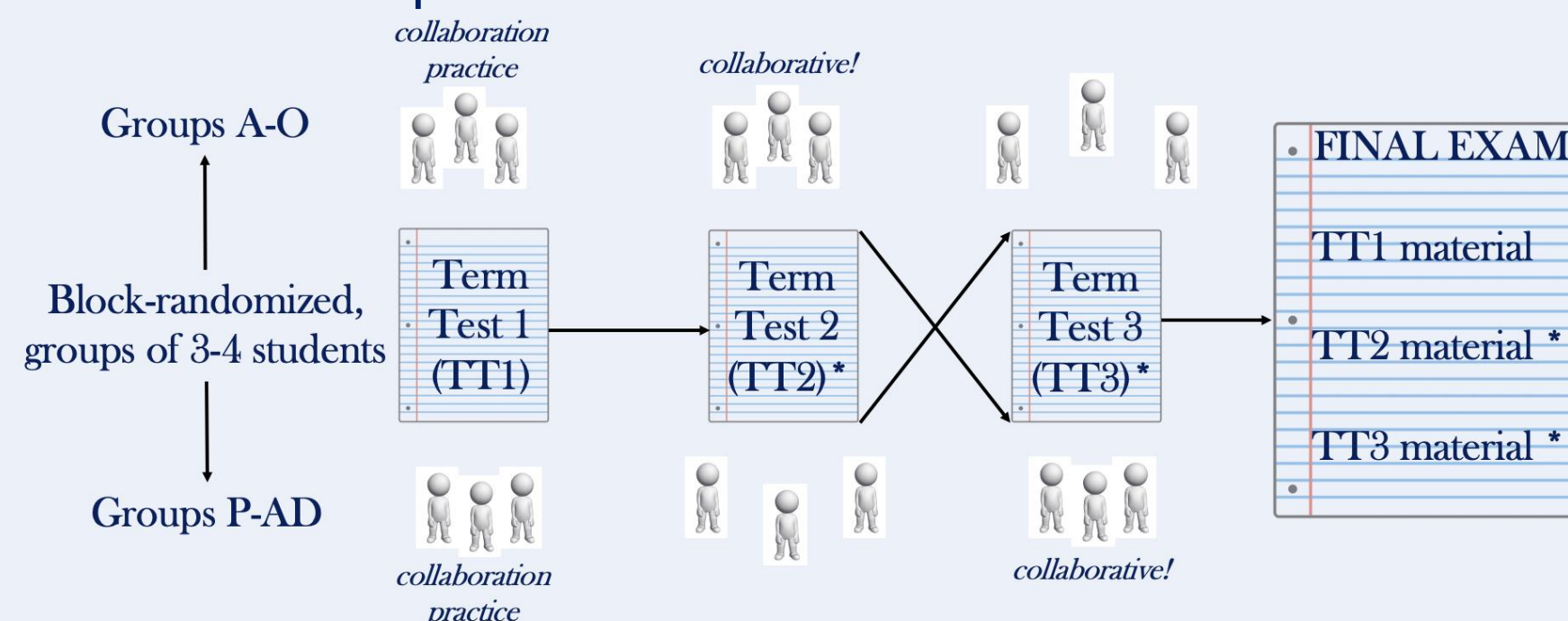
Co-Presenters: James Faul, MSc (Div. of Anat.), Victoria Melo, HBSc (HBio), Tamara Rosner, PhD (prev: CTSI), Matthew Magliozzi (RadTher cand.), Yashi Ballal (RadSci cand.)

INTRODUCTION

- Two-stage collaborative testing has been shown to improve retention of course material via final exam performance^{1,2,3}.
- These conclusions are drawn from comparisons of independent cohorts which fails to control between-student variables.
- Research Aim: to determine the educational impact of two-stage collaborative testing while controlling for between-student variables using a robust randomized crossover research design over two years.

METHODOLOGY

- Students enrolled (2018: n=97, 2019: n=99) in an introductory anatomy course completed three segmented term tests (TT; 15%-20% each) and one cumulative final exam (40%).
- For each TT, students first individually completed their exam. Then, they divided to either collaboratively complete the same test in groups (COL condition) or depart (IND condition). Students were randomly assigned to complete the COL condition for either TT2 or TT3.
- Using individualized final exam data, robust 2x2 mixed-factor ANOVA determined the impact of previous testing condition (IND vs. COL) on segmented final exam performance.



RESULTS

Hypothesis: previous COL testing would augment retention of course material as compared to IND testing.

TWO-STAGE COLLABORATIVE TESTING RESULTED IN LOWER EXAM SCORES (67±19%) vs. INDEPENDENT TESTING (69±18%) (p<0.05)

...and yet

SELF-REPORTED INVOLVEMENT WAS HIGH (84%) AND THE MAJORITY OF STUDENTS (76%) RECOMMENDED CONTINUED USE

“When we disagreed my group members would clarify his/her reasoning or I would explain why I came to my conclusion, either way my understanding improved” - col 201

REFLECTIONS (“was collaborative testing worth it?”)

Course Director: *“...Maybe?! The administrative burden was incredibly high, and the results with respect to content retention are disheartening. It will depend on the balance b/w burden + soft skill development” – D.Bentley*

Undergraduate Researcher: *“Yes. It gave students an opportunity to collaborate and share their ideas with each other and the data suggests it left an overall positive impression on student experience throughout the course” - J.Faul*

Recent Student: *“Overall, this method allowed me to better identify areas of improvement, which assisted me in studying for the final exam” - M.Magliozzi*

¹Cortright et al., 2003; ²Fournier et al., 2017; ³Vazquez-Garcia, 2018