

BISTOPS 2022

TENTATIVE LIST OF POSTER ABSTRACTS

1. Taking it to the next level: Students-as-partners in collaborative game development

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Teaching about the complexities of human behavior is challenging. It can be difficult for learners to empathize with challenges they have never experienced (Pratto & Stewart, 2012); and to grasp the complexities of phenomenon that are shaped by dynamic interactions between people and their social environments (Christens et al., 2007). "Serious games" (games developed for a serious purpose) offer a platform for people to grapple with and reflect on these complexities (Bramesfeld & Good, 2015; 2016). For example, the award winning game Depression Quest uses a dynamic first-person narrative to highlight the daily struggles of living with depression (Quinn et al., 2013). In my own work, I have created and evaluated three open-resource games focused on helping learners understand the psychological complexities of privilege, oppression, and poverty: The Game of Social Life: Poverty Simulation Board Game (Bramesfeld & Good, 2015), C'est La Vie: An Intersectionality Awareness Game (Bramesfeld & Good, 2016), and the Food Security Quest (Bramesfeld, Moraes, & Good, 2018).

The development of serious games offers a compelling and effective platform for bringing complex topics "to life" (see meta-analytic evidence on the effectiveness of serious games, Clark et al., 2016; Wouters et al., 2013). Yet, there are significant challenges that arise when developing these games. Effective game development can require expertise across multiple domains, including instructional design, computer programming, art design, and user experience. Most educators do not have the skills needed to create digital learning games on their own (Gunter et al., 2006), nor do they have the financial resources to hire people to do it for them.

In this poster presentation, I present evidence of the effectiveness of a multidisciplinary partnership model that brings together students and staff from multiple disciplines to co-create serious games for teaching about complex psychological phenomenon (Bramesfeld, 2019; Burling et al., in press). In the process, I will discuss the reasons for why I believe that a multidisciplinary students-as-partners approach can benefit a range of educational development activities to create an overall enriched and active learning environment for students and instructors alike.

2. Classroom Interventions to Improve Students' Learning Strategies

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Researchers in the scholarship of teaching and learning have identified learning strategies that differ in their effectiveness (Dunlosky et al., 2013) and have begun to develop successful

interventions to change college students' use of such strategies toward those that are more effective (e.g., Leopold & Leutner, 2015; McDaniel, et al., 2011; Rawson & Kintsch, 2005; Roediger et al., 2011; Seabrook, Brown, & Soly, 2005).

My prior research has demonstrated the utility of two interventions. First, I found that a term paper assignment focused on effective learning strategies improved introductory psychology students' exam scores in a class of 400+ students, relative to a term paper assignment on a different topic (forthcoming, Teaching of Psychology). Further research showed that a streamlined version of this term paper assignment retained the benefits for students' learning strategies and course grades while reducing grading load (under review, Teaching of Psychology).

More recently, I conducted a series of four in-class demonstrations in the same large Introduction to Psychology class to test the effectiveness of hands-on demonstrations in improving students' learning strategies and subsequent course performance. I introduced students to empirically-supported ways of reading, highlighting, taking notes, and using flash cards in an effort to improve their learning with minimal changes to their study habits and time commitment. I am in the process of analyzing data from beginning- and end-of-semester student self-reports and exam wrapper self-reports to assess students' learning strategy use, as well as exam score and overall course grade data. Although preliminary results are not yet available, final results will be ready to report by the time of the conference. This study is the first to examine the intra-semester changes in students' learning strategies as a result of multiple interventions to improve on the strategies that students use already.

3. Conveying Care in Large Courses

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Students in large lecture classes may feel unseen by, and unconnected to, course instructors. Given documented concerns with stereotype threat (Steele, 1997) and belonging uncertainty (Walton & Cohen, 2007), these feelings may be particularly problematic for students who are members of groups that are typically underrepresented in many college classrooms, such as Black, Latinx, and first generation students. In two studies, we examined how class office hours can be framed to convey a broad interest in, and care about, students as individuals. These interventions were delivered via random assignment in two large introductory psychology courses at selective universities. The "broad goals" messages focused on open and welcoming framings of instructor office hours ("come chat about anything on your mind"; "we enjoy getting to know you and supporting students in whatever way we can"), while two control conditions either specified course-specific goals for office hours ("[going to office hours] will improve the quality of your work and can increase what you get out of the class") or left the goals of office hours unspecified ("Office hours are one

of the TAs' favorite parts of teaching, and many students' favorite part of the course as well.”) Compared to both control conditions, the broad goals framing of office hours increased final course grades by 3.0% (Study 1) and 2.2% (Study 2) for first-generation and Black and Latinx students, while having no effect on the grades of White, Asian, and continuing-generation students. Areas for future research include the mechanisms for this effect, as well as other ways to convey care for, and interest in, students in large classes. These approaches might include messages in course syllabi and methods of framing assignment goals and feedback. Given their scalable and straight-forward nature, these practices provide a promising avenue for creating inclusive environments where all students can succeed.

4. The effect of generating peer feedback on metacognition, attitude toward written academic work, and scientific writing ability.

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Students often struggle to assess the quality of their own written work. Students who score higher in measures of metacognitive awareness tend to perform better academically. In this project, I investigate whether challenging students to assess the work of their peers might facilitate greater reflection on their own writing. In a lower-division course that introduces scientific reasoning and critical thinking, 440 undergraduate students were randomly assigned to complete one of three versions of a written homework question. One version required students to generate their own response and two versions required students to generate feedback for a peer. Outcome variables include the Metacognitive Awareness Inventory (MAI), exam scientific writing performance, and attitude toward written assignments.

All students were presented with the same description of a research study and were asked to describe and critique the variables. Students were practiced at this task as they had completed similar scientific writing exercises on three previous homework assignments, in class, and on one previous written exam. All students saw the same writing prompt for the predictor variable (give the operational definition and critique the construct validity). There were three different versions of the writing prompt for the outcome variable. One was the same prompt as the predictor variable (give the operational definition and critique the construct validity) while the other two prompts asked students to read a peer's attempt at scientific writing and generate feedback for the peer. One version of the peer's writing was very good (thorough, complete, and well written) while the other version was very poor (containing little content or reasoning).

The following day, students completed the same scientific writing prompts on a written exam.

A week later, students were asked to complete a metacognition scale and were asked to give their opinion about the value of the written work and the fairness of the grading in this class.

I will assess whether generating peer feedback has an impact on metacognition, attitudes toward the written work (reliability of grading and value of the written work), and performance on similar items on an exam.

This experiment is part of a larger, multi-site study investigating the role of generating peer feedback on metacognition, scientific writing ability, and attitude. The amount and relevance of peer feedback was manipulated across the different sites. This iteration of the study involves a very small amount of peer feedback while other assignments, at other sites, involve more extensive peer feedback. A person's metacognition develops over years and is not easy to influence. I predict that this small manipulation will fall below the threshold of creating a detectable influence on metacognition. I predict that reading and responding to a peer's answer (regardless of the quality of the answer) will have a measurable effect on perceived value of the written work and on scientific writing performance on an exam.

5. The Associations between Relationship Quality, Student Engagement, and Student Loyalty: A Replication Study

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Students who develop positive interactions with their peers, teachers, and faculty/staff are more likely to persist and complete a degree, and in the future, will be better able to build rapport. Positive student–faculty interactions also contribute to students' intellectual and personal development such as increased motivation, study success, engagement (Kim & Sax, 2009), and retention (O'Keeffe, 2013). In addition, to improve students' overall evaluation of their university and college interactions, the relationships between students and their faculty/staff appear most crucial (Arena, Arnaboldi, & Azzone, 2010). Based on social exchange theory, research in the field of services and relationship management in higher education indicate that positive interactions and relationships are associated with student loyalty which is crucial for the continuity and growth of higher education institutions (Bowden, 2011; Helgesen, 2008; Hennig-Thurau, Langer, & Hansen, 2001; Macintosh, 2007) . Previous studies indicated that having a focus on establishing a good relationship with students is of interest to higher education institutions (Cook-Sather & Luz, 2015; Zepke, Leach, & Butler, 2014), for instance to initiate student engagement and improve student loyalty (Hennig-Thurau et al., 2001; Snijders et al., 2011, 2019). However, little is known about cross cultural comparisons of the overall quality students with their educational faculty and staff and/or university.

This study's aim was to investigate a hypothesized model examining the associations between students' perceptions of the quality of their relationship with their educational faculty and staff (i.e., relationship quality) and students' involvement in terms of student engagement and student loyalty. By adding a new measure of shyness and shame, we aim to get a more in-depth understanding of the concept and measurement of RQ within a higher education context.

Zimbardo (1997) defined shyness as a personality trait that is “characterized by feelings of apprehension and discomfort in social situations” (p. 287). Engfer (1993) argued that shy students demonstrate approach-avoidant behavior even though they want to be sociable. Hughes and Coplan (2010) examined the link between shyness and academic achievement and concluded that shyness negatively relates to achievement and engagement.

Crocker et al. (2014) defined shame as an intense, painful, and frequently incapacitating experience involving feelings of inferiority and critical self-judgment. Greenberg and Paivio (1997) argued, “While shame promotes belonging and conformity to group standards, paradoxically it also produces withdrawal and isolation” (p. 230). Therefore, shame and shyness may affect a student’s desire to persist in school, and may relate to interactions with their peers, teachers, and faculty/staff thus affecting relationship quality.

Participants are students from four different countries, i.e, France, United Kingdom, United States of America, and The Netherlands, attending colleges with plans to achieve an Associate’s or Bachelor’s degree.

A link to an online survey was distributed through campus that consisted several parts such as items for the relationship quality scale in higher education by Snijders et al. (2018), student engagement (UWES-S-9; Schaufeli and Bakker, 2003), student loyalty (adopted from Hennig-Thurau et al., 2001), shyness and shame by the CoSS (Nathanson, 1992), and the Revised Cheek and Buss Shyness Scale (Cheek & Buss, 1981).

Structural Equation Modeling will be used to analyze the data and will be included in the poster presentation.

6. An Active and Experiential Approach to Teaching Positive Psychology

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Research has consistently demonstrated that retention and understanding concepts is improved with active and experiential learning techniques (e.g., Cherney, 2008, Sugerman, 2000). As an applied science, an active and experiential approach to teaching positive psychology that encourages ample reflection is particularly effective. Examples that have effectively facilitated active, experiential, and reflective learning in undergraduate positive psychology will thus be provided. For instance, an in-class “experiment” in which undergraduates at the University of Michigan (n = 55) experienced the immediate broadening impact of positive emotion first-hand improved their understanding of Fredrickson’s (1998, 2001) complex but foundational Broaden and Build Theory of Positive Emotions, which they also reported enjoying. Additionally, throughout the semester, students practiced 5-7 empirically-supported positive psychology exercises and wrote critical reflections about their experience and how it compared to the research in their blogs, which peers read and commented on as well. This practice seemed to greatly improve students’ learning, engagement, interest, and higher-level critical thinking skills.

Moreover, students reported experiencing positive life changes, such as increased happiness and life satisfaction, self-knowledge, and personal growth as a result.

7. Post-exam survey: Do students' self-reports on exam preparation strategies relate to exam performance?

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Exam wrappers have been used to encourage students to reflect on their exam preparation and encourage adjusting study habits for future exams. However, their effectiveness in improving exam scores has been mixed. Following the first exam in an online 300-level Cognition course, students were offered the opportunity to participate in a post-exam survey to earn 1 extra credit point. The survey was structured similarly to an exam wrapper. Students reflected on whether they were satisfied with their exam score, which course resources they had used to prepare, what changes they could make to improve their performance, and what the instructor could do to help students going forward. The survey's guided questions were intended to highlight for students all of the resources available to them. By asking students to state how they might change their study habits and how likely they were to make these changes, students were implicitly encouraged to take a metacognitive approach to their exam preparation. In addition, the survey provided feedback to the instructor, early in the semester, regarding modifications or resources that could be added to assist students in the course. Findings reveal that students' use of resources was significantly related to their exam scores. Students who reported regularly reading the book, watching the online lectures, using the study guide, and using the mastery training tool earned significantly higher scores than those who reported they did not use these course resources. Nevertheless, students who reported they were very likely to change their study behaviors did not perform significantly better on subsequent exams compared to those who reported they were only moderately likely to change. A considerable proportion (40%) of students provided comments indicating that there was nothing additional the instructor could do to help students beyond what was already provided. However, there were no significant differences in exam scores or final grades between students holding this perception and those who suggested changes the instructor could make to the course.

8. Turn to your neighbor: Is peer-instruction an effective teaching technique in an upper-level biopsychology course?

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Peer instruction (PI) is a team-based pedagogical method developed by Eric Mazur to promote student participation as well as foster student interaction with one another and with the instructor in a large classroom. PI also improves critical thinking, problem solving, and decision-making skills. Here, we used PI in a small classroom (24 students) of an upper division biopsychology

course, Sensation & Perception. PI allowed a long lecture duration of 170 minutes to be split into multiple short presentations. Each presentation was followed by a ConcepTest (CT). CTs ranged from simple recall questions to questions requiring integration and evaluation. Students answered each CT at first individually. Subsequently, the students discussed their answers with one another (peer instruction) before re-answering the same CT and possibly correcting their answer. The percentage of correct responses increased significantly following peer instruction. Students without PI (in control section) showed the same performance as students prior to PI. Furthermore, the sectional exam scores in the course sections with PI were higher than the sectional exam scores in the course section without PI. These data demonstrate that creating multiple short presentations by using CTs enhances students' understanding as well as foster their ability to integrate material and retain information.

9. Facilitating retrieval practice using an online test bank
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Practice testing, compared to other common study strategies (e.g., highlighting, rereading) can be highly effective in facilitating long-term retention of material (Dunlosky et al., 2013). Although the benefits of practice testing have been replicated in a variety of real-world and laboratory settings, students and instructors often have difficulty procuring high-quality practice questions to facilitate retrieval practice. In this project, we have created TestYourself, an online repository of multiple-choice test questions for use in undergraduate psychology courses (see <https://sites.psych.ucla.edu/psych-testyourself/>). The repository currently contains 100 publicly available practice questions that have been designed with the science of learning in mind and focus on applying key ideas to new contexts. As part of this project we are collecting data to evaluate how the use of this test bank might improve students' learning. In Fall 2019 we asked ~640 students enrolled in our Introductory psychology class to complete a subset of 14 questions from the test bank. Overall, 75% of students attempted the optional quiz at least once. Data from the post-quarter survey indicated that, of the students that completed the quiz, 90% agreed the test-bank questions were higher in quality than the questions they could generate on their own, and 77% indicated that these questions were better quality than those they could obtain from friends, the textbook, Quizlet.com, etc. Results of an ANCOVA revealed that students who completed the optional practice questions performed better on the final exam than those who did not complete the practice questions, even after statistically controlling for performance on the midterm, $F(1, 627) = 17.21, p < .001, \eta_p^2 = .03$. In sum, our data suggest that this test bank is a valuable tool for students. Over the next 12-months we have two major goals for the project. First, we will expand the existing student repository to include questions from an additional core psychology course, Research Methods. To do this, we have partnered with faculty at UC Davis to help facilitate the expansion of the test bank and encourage its use at other institutes. Second, we will develop a password-protected instructor section of the website to support instructors in

creating effective assessments. Instructor questions will be accompanied by the specific learning outcomes they assess as well as measures of item difficulty. Taken together, this initiative will help to facilitate the use of high-quality retrieval practice in the classroom and provide students with resources to effectively test themselves at home.

10. Having Your Fun Facts and Learning Too

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Instructors must find ways to keep students engaged without creating distractions from learning. Seductive details are interesting but irrelevant elements added to a lesson with the intention of sparking interest. These details are “seductive” in that they are often remembered at the expense of the target information (Harp & Mayer, 1998). Seductive details can include fun facts, flashy animations, or game environments. Typical evidence-based guidelines instruct teachers to eliminate all seductive details from their lessons, but what if instructors wish to keep interesting, extraneous elements in lessons without jeopardizing learning? In an initial experiment, two worksheets were designed to help students focus on the instructional goal of a text-based lesson. In a 2x2 design, college students read a lesson about the life cycle of fungi, with seductive details and worksheets as independent variables. Participants then completed a retention test and problem-solving transfer test. A typical seductive details effect was found without the worksheets, but the seductive details effect was eliminated with the worksheets present. A follow-up experiment replicates the methods of the first experiment with a multimedia lesson; data are currently being scored. A third experiment in development will use a video-based lesson on neuron structure and function. The results of the initial experiment show that the harmful effects of seductive details are reduced with instructional support designed to help students direct and control their cognitive resources during learning. Implications for lesson planning and instructional technology will be discussed.

11. A Longitudinal Analysis of an Instructor’s Humor in the Classroom

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There is considerable research to suggest positive implications for the use of humor in the classroom. Several studies, for example, find that student learning is enhanced by instructor humor (Garner, 2006; Gorham, & Christophel, 1990; Ziv 1988). Others indicate that an instructor’s perceived humor can positively impact course ratings (Adamson, O’Kane, & Shevlin 2005). Teaching literature also speaks to the many ways in which an instructor develops over time. Such measure of growth, however, tend to be subjective and rely on personal narratives or

self-report. Though some instructors may report becoming funnier over time or better employing humor in the classroom as they become more experienced, more objective measures of humor—that is, student perceptions of an instructor’s funniness—could better assess the extent to which an instructor’s humor changes (or does not change) over time.

This study uses archival data to explore the adjectives that students used to describe an instructor across the first 10 years of teaching. On end-of-semester written evaluations, students (N=1509) were asked to “list 3 adjectives that describe this instructor.” Using qualitative analyses, this study explores patterns among the nearly 5,000 adjectives used to describe the instructor over time.

Preliminary results suggest that a higher rate of terms pertaining to humor (i.e., “funny,” “comical,” “hilarious”) were generated by students in the instructor’s later teaching years than in the instructor’s early years. The latter suggests that the instructor’s humor increased over time.

This study provides insight into an age-old question: can one learn to be funny? By understanding how student perceptions of an instructor’s humor changes over time, scholars gain insight about the trajectory of humor in the classroom. Because of its notable role in teaching and learning, understanding instructor humor and how it unfolds over time is also essential to understanding teaching growth and development.

12. Using externally funded projects to create learning opportunities for final year undergraduate honours students: The Friendship Feast Project

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In the UK, undergraduate honours students are required to conduct an extensive research project (dissertation) during their final year of study. Due to ethical restraints, these projects are becoming more problematic to supervise, and there is an associated increase in projects based on secondary research, which limits student experience in gathering primary data.

To create opportunities for students to participate in primary research for their dissertation projects, live externally funded staff projects were made available to students. Details of the projects were posted on the College VLE, and students could apply to participate. Faculty staff supervising the projects then worked with the students to manage the specific aspect of the project that the student work focussed on.

The Friendship Feast Project was an externally funded project devised to improve integration, communication and mental well-being among refugee women, and this was used as a case study to evaluate the impact of working on live projects for students. This 13-week project took place for 1 afternoon per week and addressed the challenges faced by refugee women by using food as a vehicle to bring people together to build strong relationships, and enable them to fulfil their potential. Dissertation students from 3 undergraduate programmes took part: Psychology, Early Years and Fine Art.

Psychology students befriended the women and supported them to take part in the project, using regular text-based contact to improve their English. They also measured participant wellbeing (Warwick–Edinburgh Mental Well-being Scale, Tennant et al., 2007) and General Self-Efficacy (Schwarzwer & Jerusalem, 1995) throughout, and interviewed the participants on completion of the project for an impact case study. The focus of the Psychology dissertation projects was the psychological impact of participating in the project for the refugee women.

Early Years students provided an on-site crèche so the women had respite from motherhood, creating the freedom to fully engage with the project. The focus of the Early Years dissertation projects was the factors involved in creating a crèche setting for young children where English is not spoken at home.

The Fine Art student photographed the women during the weekly sessions, and did studio portraits of the women in their national costume. The focus of the Fine Art dissertation project was to create a cookery book of the recipes that the women brought to the project, with a chapter based on each of the women and their country of origin. The book will be published and sold to raise money for refugees.

Experience of participation in the project will be evaluated alongside the quality of the dissertation projects that emerge from it. Initial interviews with students suggest that participation in a live project with practical outcomes added value to the experience of conducting a dissertation project.