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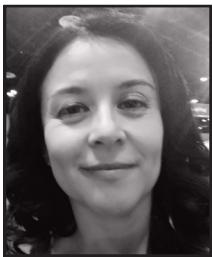
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The Value in Using Virtual Reality Immersion to Teach the Historical Middle Passage From the Perspective of a Historian and Game Researcher

Yovanna Pineda and Emily Johnson



Yovanna Pineda is Associate Professor of History. This summer 2019, she is writing her second book, *Harvesting Innovation: Rituals, Memory, and Invention of Farm Machinery in Argentina*, which examines knowledge, ritual-making, and maintenance of agricultural machinery and on a companion documentary film, *Stories of the Harvester*.



Emily K. Johnson is Visiting Assistant Professor of Games and Interactive Media. Her research focuses on educational technology of all kinds, including PC, VR, AR, MR, non-traditional interfaces (and everything in between), as well as simulations and learning, gameful learning, self-regulated learning, learner motivation & self-efficacy.

Getting Started in VR

Thanks to a plethora of historical topics and a public interest in history and origin stories, instructors of history are always looking for ways to tell a good story. Teaching styles and methods vary considerably and are always evolving over time. Change, of course, can be fast and jarring, causing confusion, or slow and incremental, creating frustration. I recall how once, long ago in 2001, I was perceived as a pioneer because I lectured using PowerPoint and a touchscreen board rather than a traditional blackboard. Most important for me, however, was not how chic the technology was, but that I sought to direct and control it to best fit my instructional needs.

Over the past twenty years, I have used a variety of teaching methods to demonstrate the diversity of slavery in Brazil. I largely teach it from the perspective of life in Brazil. However, I have never spent sufficient time on the Middle Passage, which was essential to the colonization and enslavement process. A fifty-day journey from the West African coast to the coast of Rio de Janeiro was the period of demoralization and near dehumanization of the captives kidnapped from their homes. Many moons ago in graduate school, I was trained to teach slavery, and as such, I sat in a three-

quarter, year-long course on the economy of slavery, and my introduction was $Q=f(K, L)$, where output (Q) is the function of capital (K) and labor (L). We focused on the economic aspects of slavery, employing quantitative, “objective” methods to examine how African captives were part of making undesirable places (i.e., those without gold or indigenous people to exploit), such as the Caribbean, the United States, or Brazil into profitable plantation economies. In class, we used phrases such as “Brazil imported five million Africans to its country,” as if they were importing hides or tallow.

I know that my training should not define how and what I want to teach my students. Indeed, I did not want to teach simply that humans were treated as cattle. Currently, I want my students to empathize with humans trafficked across the Atlantic for over three centuries. Coincidentally, as I wondered how to teach content and empathy about the massive human trafficking scheme and its suffering, in 2016, I stepped into a conference presentation at the annual meeting of American Historical Association, where the speaker, a graduate student from the University of West Virginia, was researching technology (Virtual Reality Cave) to

teach the Cherokee Trail of Tears, aiming to increase empathy and sensory learning.

The idea sounded fascinating, but how to actually do it became the next part of a long journey. I started to read about the gains made in virtual reality at other campuses, but my vision was limited to what I had seen in drama movies (i.e., *Disclosure*, 1994). I spoke with Associate Director of the Center for Humanities and Digital Research (CHDR), Dr. Amy Giroux, who always has a “We can do that!” attitude. She listened to my ideas and helped me gain confidence in the project. She introduced me to Dr. Emily Johnson, game researcher, and then it was a domino effect, and she taught me about virtual reality systems, the computer science capstone course project, digital media student artists, and other resources to begin a prototype of a virtual reality immersion of the Middle Passage.

Since Fall 2017, this interdisciplinary project has involved a collaboration across departments at UCF, including historians (Dr. Fon Gordon, Dr. Ezekiel Walker), game researcher (Dr. Emily Johnson), CHDR’s associate director (Dr. Amy Giroux), Portuguese language professor (Dr. Sandra Sousa), two teams of computer science students, and two students from School of Visual Arts and Design to create a prototype of the Middle Passage experience. We want historical accuracy, and in 2017-2018, I worked with the first CS Capstone Group to discuss what happens on the Middle Passage. This past year (2018-2019), Dr. Fon Gordon and Dr. Ezekiel Walker, have joined in the conversations with a new CS Capstone Group to discuss everyday forms of violence on the ship and potential scenarios for the VR immersion. Currently, we have a prototype using Oculus Rift that we will showcase to the public at the UCF Celebrates the Arts in April 2019.

Visually, the prototype is simultaneously beautiful and horrifying. The immersion begins at Elmina castle where you, “the player,” are in a long line with captives walking toward the ships. You are surrounded by crew members, making sure you remain in line. Once onboard, you have several choices to make that may or may not improve your personal situation, such as you may receive more food if you endear yourself to the crew by cleaning or loading balls into the cannons, or you may get punished if you throw things overboard or steal food. As we wanted this to be as authentic as possible, the best scenario for you as the “player” is being sold together with your friend on the Brazilian auction block, and perhaps for a higher price so a more wealthy coffee plantation owner could purchase you. In captivity there is no happily ever after, only survival and perseverance.

The Immersive Environment

The immersive environment of VR can create a powerful experience, and with a subject matter this intense, the project would need to be handled with careful intent. When Dr. Pineda first explained her vision for this project, I (Dr. Johnson) was hesitant until I grasped the reasoning behind a VR world intended to simulate a dehumanization process. However, for students who have been taught simplified versions of history in high school as their teachers were pressured to cover material for standardized tests, it often takes additional effort to help them truly understand these events and the ripple effects they have in present-day society. In this day and age when social media and easy-to-create websites allow for the rapid spread of misinformation, it becomes even more vital to promote empathy and deep learning on these important topics in higher education and beyond.

As a former middle school teacher, I have always been interested in pedagogy that increases student motivation and engagement. VR is especially enticing in these areas because, in addition to a novelty factor, the headset prevents the player from seeing anything outside the virtual world. This increases the player’s focus on the experience (the student cannot turn to the person next to them to make an off-topic comment) and enhances the feeling of immersion (the virtual environment is the only one their senses perceive). The healthcare field has led the way in the use of first-person simulations to train caregivers and an increasing number of programs have been developed with VR to give the participant a way to experience various conditions firsthand, such as dementia (e.g., Embodied Labs; Alzheimer’s Research UK). The ability to embody a different person in a safe environment, especially when a preservice health professional is able to take on the role of a patient, is believed to increase learning and empathy (Bearman, Palermo, Allen, Williams, 2015). The growing field of empathy-learning games has also taken notice of the immersive nature of all types of games—even board games—as a potentially powerful way to help humanity walk a mile in another’s shoes across a range of experiences, eliciting feelings of empathy in the player; fostering global empathy, learning, and citizenship; and practicing socioemotional skills (Bachen, Hernández-Ramos, & Raphael, 2012; Belman & Flanagan, 2010; Hromek & Roffey, 2009).

In 2017, I introduced Dr. Pineda to Dr. Mark Heinrich, who teaches the capstone computer science course—a two-semester project-based course where computer science majors hear “clients” from UCF as well as external companies (including NASA and Lockheed Martin) pitch projects they need computer scientists to work on, and then students select the project they would like to develop. The first semester is focused on research and preproduction documentation, and the second on development. The computer science students met regularly

with Dr. Pineda to discuss the concept, intent, and historical accuracy of the experience, and I provided access to the VR equipment in the Games Research Lab (initially, an HTC Vive). We have since purchased two Oculus Rift VR headsets that allow for greater portability than the HTC Vive because of their smaller sensor configuration.

Because of the short capstone course timeline, the computer science students needed to prioritize function over aesthetics. I was able to hire a digital media major, Phuc Trong, to create the main ship and some other assets for the team. The computer science team was then able to utilize models and assets available from the game platform (Unreal) as placeholders until we could secure external grant funding to complete and polish the experience. The history department generously funded an additional digital media student artist, Jason Waters, to create 2D images depicting different aspects of the experience for grant applications.

Overall, this has been a learning and research journey for all of us, and an opportunity to collaborate with colleagues and students across disciplines. We will demo our first fully functional prototype at the UCF Celebrates the Arts event on April 12, 2019 (in the lobby area). Afterward, we will begin the next big part of our vision, applying for grants to advance our VR immersive experience, so that one day, we could use it for our research on empathy learning in higher education.

References

- Alzheimer's Research UK (n.d.), A Walk through Dementia. Retrieved from: <http://www.awalkthroughdementia.org/>
- Bearman, M., Palermo, C., Allen, L. M., & Williams, B. (2015). Learning empathy through simulation: a systematic literature review. *Simulation in Healthcare*, 10(5), 308-319.
- Bachen, C. M., Hernández-Ramos, P. F., & Raphael, C. (2012). Simulating REAL LIVES: Promoting global empathy and interest in learning through simulation games. *Simulation & Gaming*, 43(4), 437-460. Retrieved from: <https://journals.sagepub.com/doi/pdf/10.1177/1046878111432108>
- Belman, J., & Flanagan, M. (2010). Designing games to foster empathy. *International Journal of Cognitive Technology*, 15(1), 11. Retrieved from: <https://tiltfactor.org/wp-content/uploads2/cog-tech-si-g4g-article-1-belman-and-flanagan-designing-games-to-foster-empathy.pdf>
- Washington, E. & Shaw, C. (n.d.) The Effects of a VR Intervention on Career Interest, Empathy, Communication Skills and Learning with 2nd Year Medical Students. Retrieved from: <https://static1.squarespace.com/static/57237ac420c647f685d44510/t/5b0799a48a922d804a8f5a19/1527224745768/EL+Whitepaper+-+Effects+of+a+VR+Intervention.pdf> [company website: <https://embodiedlabs.com/>]

The Challenges and Benefits of Increased Transparency and Authenticity in STEM

Matthew Rex



Matthew Rex was born and raised in Minnesota. He received his B.S. in Chemistry and Biology from Bemidji State University and his Ph.D. in Chemistry from the University of Central Florida. He works in the UCF Chemistry Department as Associate Lecturer and Instrumentation Specialist. His interests include analytical chemistry, instrumentation and chemistry education.

Last December I had the good fortune to attend the Winter Faculty Development Conference. The focus of the conference was transparency and authenticity in teaching. Something that I did to some degree or another before but rarely considered actively. While I was writing my proposal for the conference, I had a clear definition of what I thought transparency was and listed many ways that I utilize transparency in the classroom and the lab. While attending the conference, I realized how narrow my understanding and definition actually was.

Transparency in teaching can mean different things to different people. Students probably have one idea of it, something that might be very dissimilar to the faculty, who have another idea of what it means to them. To instructors, too much transparency can seem scary; some might think it means opening up the curtain and revealing every reason and method behind how you teach, why you teach, grading, etc. I think there is an obvious concern, and not an unfounded one, that by being transparent we will remove critical thinking aspects from our assignments. Being completely transparent in all methods could expose faculty to criticism; it might invite unwanted discussions regarding assignments, grading, and class structure. Things that most of us wouldn't desire or fear would detract from actual pedagogy and add unneeded difficulty to our jobs.

Transparency can be extremely important in teaching STEM, not only in the classroom but also in the laboratory. Transparency can mean several things in relation to a lecture or a lab. There might be the idea that transparency is utilized by the students as a crutch, or for the lazy, or those incapable of critical thinking. I can't count the number of times in lab that I found myself astonished by the missteps that students made. Yet looking back it seems that these missteps might never have occurred had I been more transparent with the students regarding the purpose of the assignment, learning outcomes, and logistics. In these instances I don't think it reduces the students' engagement or use of critical thinking skills but actually improves them. Instead of focusing on logistics or feel-

ing frustration rooted in confusion, the student is now free to truly focus on the purpose of the assignment or lab and apply more of their faculties toward that goal. They can now engage with the material in a more meaningful way, utilizing their previous knowledge, thinking critically about the material, and hopefully creating new knowledge.

As I began attending workshops and speaking with other faculty at the conference, I found that the most useful exercise was remembering what it was like to be a student myself. By embracing this mindset, I can see how assignments that I think are quite clear can in fact be very ambiguous. It wasn't that long ago that I was a student in college myself. We were all students at one time, and honestly should still be students now. I often apply my own expert knowledge and bias to assignments without being aware of it. I know what I am expecting from an assignment—obviously—I am the one that wrote it, but if I remove my pre-conceptions and hindsight from the equation, I can often see the gaps in my assignment designs and descriptions. Increasing transparency shouldn't be detrimental to the students' learning experience, but rather enhance it. As well as enhancing my own experience as I will see better, more complete, papers and lab reports. This should allow me to spend time focusing on higher levels of criticism and education, instead of spending time correcting logistical issues, or re-explaining an assignment in greater detail.

At the conference we also had the benefit of working in small groups. I was privileged to be in a group with my fellow STEM faculty. We utilized Michael Palmer's Transparent Assignment Templates as a guide for discussing our in- and out-of-class assignments. Previous studies have shown that elucidating course activities and assignments drastically enhance students' learning. These templates allowed us to quickly and easily understand the areas in our courses that could benefit from increased transparency, and to have an open discussion with our colleagues on what specific challenges we faced. We created our own template with an introductory paragraph explaining the issues in our particular discipline and providing guidance to achieve greater authenticity.

Conference workshops taught me various ways that I can increase, and later utilize, transparency in my courses. Explaining to the students what audience they are writing for helps them write better papers and lab reports. This further opens new means of pedagogy, as students don't often actively think about their audience, or even consider their audience when writing. This level of transparency can only help me in the long run as it reduces my exasperation, results in a higher quality of writing and makes my evaluation of papers and assignments that much easier. Student perceptions and learning experiences will be improved as well. Through greater transparency the students might have a greater understanding of

why we assign the work that we do. We can develop a greater understanding of authenticity, which will make the students more willing to engage with us and the material if they see us as a real person. Instead of further predicated the idea that the student teacher dynamic is adversarial, it will help to illustrate that the goal of academia and of learning in general is cooperative. That we are working with the students to help them and to facilitate their education. This should not only help us better achieve learning goals, but also improve the experience and the perception of education for the students and for ourselves.

Creating Undergraduate Research Experiences for Professional and Civic Preparation

Robert Borgon and Ken Teter



Robert Borgon is Associate Professor in the Burnett School of Biomedical Sciences. He earned his B.S. degree in Microbiology from the University of Florida, and his Ph.D. in Molecular Cell Biology from the University of Tennessee. He teaches Quantitative Biological Methods, Molecular Biology I, and PILOT, an undergraduate teaching and research course which recently won the Marchioli Collective Impact Innovation Award.

Ken Teter is Professor in the Burnett School of Biomedical Sciences. His research focuses on the cell biology of intoxication with proteins such as cholera toxin, Shiga toxin, and ricin. He teaches classes on pathogenic microbiology, and he has developed multiple undergraduate research programs.



Undergraduate research experiences are essential to students in the life sciences who wish to pursue a career in science or medicine. Traditional research experiences involve a one-on-one relationship with a faculty mentor who can only train a few students at a time. With this model, only 100 out of 2500 students majoring in Burnett School of Biomedical Sciences (BSBS) degree programs were engaged in undergraduate research at any given time. BSBS thus created multiple curriculum-based undergraduate research experiences (CUREs) to expand research opportunities for a larger population of students. These research programs help prepare our students for graduate school, professional school, work in a STEM laboratory, and beyond. Students can also utilize

these programs as a starting point for an Honors in the Major project. Additionally, these programs meet the QEP's goal of creating integrative learning for professional and civic preparation. Several CUREs are discussed here.

Peer Instruction and Laboratory Occupational Training (PILOT, PCB 4943) was developed by Robert Borgon, Nicole Verity, and Ken Teter to provide students with additional teaching and research opportunities in the framework of an existing course. PILOT students have been trained in research methods in a prerequisite course, Quantitative Biological Methods (QBM, BSC 3403). They put this knowledge into practice when they return to teach molecular biology techniques to current students in the QBM laboratory. Additionally, students formulate and conduct their own research projects. PILOT students thus act as both teaching and research assistants.

For teaching assignments, PILOT students meet weekly with faculty to discuss upcoming class material and technical details of the laboratory, practice lecturing, prepare reagents, discuss their project, and review and present research papers. They subsequently attend a lab section where they engage with students, teach, answer questions, help with assignments, manage equipment, and assist students with the lab protocol and their technique. PILOT students have been a valuable addition to the QBM laboratory as they assist the instructor and facilitate student learning.

PILOT students are also required to complete a research project and final report. We provide a list of research topics, and guide students when needed, but we have found that many come up with their own topics of interest to investigate. PILOT has also recruited other BSBS faculty to support research projects, as it offers them an opportunity to assess and recruit research students to their laboratories.

PILOT is offered as an adjunct to QBM each fall and spring semester. Classes consist of ~25 students who support the 310 QBM students spread across 13 lab sections. Since the inception of PILOT in 2009, over 500 students have completed the course. Several PILOT students have won awards for poster presentations of their work at SURE. PILOT was recently selected for the UCF Marchioli Collective Impact Innovation Award.

Applied Industrial Microbiology (AIM, MCB 4653) was designed by Sean Moore as a laboratory course for students planning to enter the workforce. He trains around 12 students per course in relevant experimental techniques and guides them through an original project involving interdisciplinary teams of UCF investigators or regional industrial partners. For example, AIM students have worked with faculty in the

Department of Civil, Environmental, and Construction Engineering to examine how microbes can detoxify public water supplies. Industrial partnerships have focused on biofilms in food and water delivery systems. These projects build bridges to communities outside BSBS and train students for entry-level jobs in food microbiology. Since its inception in 2016, AIM has provided research experiences and job training to 31 undergraduates. AIM has received support from a UCF QEP grant.

Group-Effort Applied Research (GEAR, MCB 4920C) was developed by Sean Moore and Ken Teter as a strategy to improve the efficiency of mentoring undergraduate researchers without sacrificing the quality of the research experience. With GEAR, a class of 8-15 students work on an original project linked to the faculty instructor's research program. Students receive classroom instruction on basic concepts in molecular biology, research methods, and background on the research topic. They also receive hands-on training in common laboratory techniques and then apply that training in the lab. Lecture and lab work proceed in tandem, allowing students to make consistent gains throughout the semester in knowledge, technical skill, and experimental results. The class-based nature of GEAR provides students with a standardized research experience and allows a single faculty instructor to effectively mentor a cohort of students. GEAR has been taught by 8 different faculty members since its inception in 2012, providing over 100 students with original research experiences. GEAR is one of the first classes at UCF to receive the course-level Research-Intensive designation.

The CUREs developed by BSBS can be adopted by other Departments and can form the basis of comprehensive undergraduate research programs. An example of this is the **Transfer-student Research and Integration Program (TRIP)**, an NSF-sponsored program run by Ken Teter, Ken Fedorka from the Department of Biology, and Kimberly Schneider from the Office of Undergraduate Research. A cohort of 18 transfer students begin TRIP in the fall semester with an Introduction to Research class and then split into two teams of 9 students for a GEAR project in either Biotechnology or Biology. For their second year, TRIP students prepare a poster of their research findings and present their work at SURE and the Florida Undergraduate Research Conference. TRIP just started in Fall 2018, but it is viewed as one long-term strategy for UCF to train and retain transfer students majoring in STEM disciplines.

BSBS has found great success with these programs, and each serves a specific niche to meet both student and faculty needs. They provide unique research-intensive experiences for our undergraduate students, many of whom would otherwise not have the opportunity to join a research lab due to limited

availability. These CUREs can be used as models for other colleges who are interested in creating similar integrative learning experiences for their undergraduate students.

Using SoTL Research to Define and Advance the Emergency Management and Homeland Security Disciplines

Claire Connolly Knox



Claire Connolly Knox is Associate Professor and the Emergency Management and Homeland Security Program Director in UCF's School of Public Administration. She teaches Community Resiliency and Sustainability, Disaster Response and Recovery, Environmental Planning and Policy, and Managing Emergencies and Crises courses. She created and is Chair of the SoTL Special Interest Group for the Federal Emergency Management Agency.

As relatively new disciplines, emergency management and homeland security (EM/HS) have had some growing pains. When terrorists attacked on September 11, 2001, there were only 75 academic programs in U.S. colleges and universities. Within 17 years, we have experienced a rapid growth to approximately 330 associate, undergraduate, certificate, graduate, and doctoral programs in the U.S. (FEMA, 2018). UCF contributed to this growth with the Emergency Management and Homeland Security Minor in 2003 and Graduate Certificate in 2008; this year we start the BA/BS in Emergency Management and Master of Emergency and Crisis Management.

From the larger scholarship perspective, our discipline has made great progress in studying anything related to emergencies, disasters, and crises. However, as a discipline, we continue to struggle. We are interdisciplinary by nature, which adds additional complexity. We are without an academic program accreditation body, standardized curriculum, or widely accepted body of knowledge. This impacts our profession as we lack consensus on student learning outcomes and other educational standards. We are gaining traction and, in partnership with the Federal Emergency Management Agency's (FEMA) Higher Education Program, have created many special interest groups (SIG) related to these issues. For example, in 2017 select members of our community created the *Next Generation Core Competencies for Emergency Management Professionals: Handbook of Behavioral Anchors and Key Actions for Measurement*.

I noticed something missing and thankfully, I was not the only one. There was no SIG for the Scholarship of Teaching and Learning – the systematic study and analysis of the effectiveness of various pedagogical and andragogical theories and tools, and then dissemination of the results through various means (Shulman, 2004). Other disciplines have a rigorous SoTL literature, and this is one way to define and advance a discipline (Huber & Hutchings, 2005). In fact, education journals in the STEM disciplines date to the 1920s (McKinney, 2010). We needed a discipline-wide call for SoTL research. To quote *Field of Dreams*: “build it and they will come.”

In 2016, through the FEMA's Higher Education Program, I was invited to participate in a larger conversation about our discipline. Our conclusions were not ground breaking but needed to be stated. EM/HS SoTL research was primarily anecdotal and theoretical; very little of it was empirical. We also were not disseminating it broadly, primarily posting it on FEMA's Higher Education website that was underutilized – in fact very few EM/HS faculty knew it existed. The larger community discussion on this issue was *ad hoc* at best. Through this focus group, we created goals for our community and I accepted the leadership role. The greatest aspect was the wealth of buy-in and participation by members of the EM/HS disciplines.

My leadership team and I created a SoTL group that included a broad range of EM/HS faculty (adjunct faculty through full professors) representing various types of higher education institutions (community colleges, universities, Historically Black Colleges and Universities, and Hispanic serving universities). With incredible support from the larger community, these past two years were very productive; we

- attended the 2017 and 2018 American Educational Research Association conferences
- held an additional focus group meeting in September of 2017 (I attended via Skype thanks to Hurricane Irma)
- presented at multiple national conferences
- published two forthcoming articles in a special symposium in the *Journal of Emergency Management* (Feldmann-Jensen, et al; Knox, et al)
- hosted webinars through FEMA's Higher Education Program
- restructured the name of a discipline-specific journal to include education: *International Journal of Preparedness, Resilience and Security Education*
- created a SoTL Special Interest Group (SIG) housed within FEMA's Higher Education Program
- created a SoTL track at the annual FEMA Higher Education Symposium
- created the Annual Scholarship of Teaching and Learning Award sponsored by UCF's School of Public Administration.

What the SoTL group and I are proudest of is the buy-in and cultural shift we are experiencing within our community and discipline. For example, at this year's FEMA Higher Education Symposium, members of the SoTL SIG held a half-day workshop on SoTL methods. We started off with "What is SoTL?" because realistically that is where we are as a discipline. However, we are excited to build out this workshop each year and supplement with webinars to support our growing SoTL efforts.

I hope this glimpse of the messy workings of defining and advancing a discipline through SoTL efforts helps invigorate you to do the same. As younger disciplines, we are constantly reaching out to other disciplines to learn from your SoTL efforts. For those of you from a SoTL-rich discipline, we could use your guidance as we build our SoTL foundation and shape the future of the EM/HS disciplines. We invite you to read through our reports and provide us feedback. The 2017 and 2018 AERA Conference reports, as well as the SoTL Focus Group reports, are available for free on FEMA's Higher Education Website under New Information and Resources: <https://training.fema.gov/hiedu/>

References

- Federal Emergency Management Agency (2017). Emergency management institute: The college list. Retrieved from <https://www.training.fema.gov/emiweb/edu/collegelist/>
- Feldmann-Jensen, S., Hackerott, C., Knox, C.C., Ramsay, J., McEntire, D.A. (In Press). The scholarship of teaching and learning in emergency management and homeland security: Trends, gaps, barriers, and opportunities. *Journal of Emergency Management*.
- Feldmann-Jensen, S., Jensen, S.J., and Smith, S.M., (2017). *The next generation core competencies for emergency management professionals: Handbook of behavioral anchors and key actions for measurement*. Emmitsburg, MD: Federal Emergency Management Agency. Retrieved from https://training.fema.gov/hiedu/docs/emcompetencies/final_%20ngcc_and_measures_aug2017.pdf
- Huber, M. T., & Hutchings, P. (2005). *The advancement of learning. Building the Teaching Commons*. San Francisco: Jossey-Bass.
- Knox, C.C., Emrich, C., & Haupt, B. (In Press). Advancing emergency management higher education: Importance of cultural competence scholarship. *Journal of Emergency Management*.
- McKinney, K. (2010). *Enhancing learning through the scholarship of teaching and learning: The challenges and joys of juggling* (Vol. 139). John Wiley & Sons.
- Shulman, L.S. (2004). Lamarck's revenge: teaching among the scholarships. In *Teaching as community property: Essays on higher education*. San Francisco: Jossey-Bass.

Packback: A Tool for Outsourcing Your Discussion Board in Large Online Classes

Steven Berman



Dr. Steven L. Berman is Associate Professor of Psychology, working on the Sanford/Lake Mary Campus of UCF. He teaches in the Clinical Psychology MA Program, as well as upper division undergraduate courses. He joined the UCF faculty in 2001.

I use the discussion board in my online classes to (1) promote engagement with the course material in the hopes of increasing understanding and recall, and (2) encourage critical thinking about course concepts. However, with class sizes of approximately 125, I find it a struggle to promote and maintain a level of discourse on the discussion board that adequately meets those two objectives. I have tried a number of different strategies to improve the quality of discussions, but the sheer number of students and labor intensity of guiding discussions has kept me from fulfilling my purpose and achieving my goals. Student posts (with some exceptions) tend to be terse and uninspired. They are graded in terms of number of required posts, but I have too many students to adequately grade for quality or give them detailed weekly feedback. I believe students see this as another mindless task to be completed rather than an opportunity to engage in meaningful and educational dialogue.

Last semester I tried a new strategy: outsourcing my discussion board to a professional company called "Packback" (<https://www.packback.co/>). It uses algorithms to manage the board for me on an external website. Each week students are required to post an original critical thinking question concerning the course readings for that week. Then they must reply to at least two other student questions. They can also share resources, articles, or ideas that inspired them and ask for responses. An email is sent to students when their question is answered by another student. The algorithms flag posts that do not follow the directions or conform to task demands (e.g., closed ended questions; questions about homework, quizzes, or class logistics; profanity or inflammatory language; duplicate posts; plagiarism or cheating). The flagged posts are then examined by human moderators and brought to the instructor's attention.

Each week they send me several posts that they consider exemplary, for me to pick one or two to "feature." All students can see whose postings earned the distinction. They also send me a list of all the students who posted that week, with the number of questions asked and number of questions answered by each student, for quick and simple grading purposes. In addition, they give "Curiosity Points" based on depth (detailed

post), presentation (effort), and credibility (use of citations). They have a “Leaderboard” which lists student Curiosity Point scores from most to least, so students can see their ranking. Students are also able to “Spark” other student posts, which is akin to a thumbs-up in Facebook. Students can hand out up to 5 sparks to fellow student posts per week. The features, sparks, and curiosity points do not enter into their grades, but do create friendly competition and motivation to try harder.

From my perspective, it appeared to be a success. The discussion board was far more interesting and engaging, and the questions and answers suggested that the students were thinking more deeply and attempting to apply the material to their lives. I believe it also makes my course more “transparent” by (1) demonstrating to the students how their ability to ask and answer questions allows them to take fuller personal responsibility for their learning, and (2) showing them how they can use critical thinking skills to deepen their understanding of course material.

I surveyed the class on their opinion of the experience, and the response was very positive with an average of 92% across questions reporting that it was somewhat to extremely helpful on issues like getting them to think more critically about course material and learning about other students’ diverse perspectives (e.g., 49% Extremely Helpful, 30% Very Helpful, 13% Somewhat Helpful), with 8% disagreeing (e.g., 5% Not Very Helpful, 3% Not at All Helpful). Some typical responses to open-ended questions on the feedback survey were

- “Having to come up with my own questions and seeing my peers’ questions and their perspectives helped so much, not only with the course material but also with the skill of asking questions. So thank you for that!”
- “I liked that we were given a lot of flexibility with what we wanted to discuss on packback. It made me more interested to read others’ responses and be more engaged than if we were asked to talk about a more constricted topic.”
- “In regular discussions, most students give lackluster responses and receive a good grade on it. Packback required more attention and critical thinking, and provided us with scores of how critical or not critical our questions and responses were.”
- “I liked that they rewarded thinking points and sent email alerts when your question was answered.”

The more negative comments were all variations on the same theme; they did not like the cost, which was \$25.00. However, even these negative comments often had something positive to say about the experience, e.g., “I enjoyed coming up with a question and answering other classmates questions, but I feel that this could have been done on the course’s discussion tab. I felt it was unnecessary to spend money on Packback when there is a discussion option in the course.” What these

students failed to understand is that I cannot duplicate this in Webcourses. It does not have curiosity points, leaderboards, and sparks, and I cannot monitor 125 students the way Packback can with their algorithms. I am using Packback again this semester, but this time I am trying to be more transparent by spending more time on emphasizing how and why I cannot duplicate the Packback experience on a Canvas Discussion Board, and how I chose an inexpensive textbook to offset the cost of Packback. Hopefully that will minimize some of the disenchanted student objections, although experience has taught me that you can’t please all students all the time!

From Faculty Formation to Student Engagement: Reflections on Serial Testimony

Rachel Luce-Hitt and Jeanine Viau



Rachel Luce-Hitt is Coordinator of Educational/Training Programs in the Office of Diversity and Inclusion. She is responsible for the development of curriculum as well as the facilitation of workshops, dialogues, and experiences that aim to build a more inclusive university community. As a

proud first generation college student, she earned both a Bachelor of Arts degree in Anthropology and a Master of Business Administration from Rollins College. Over the past 13 years, Rachel has worked as the Assistant Director of Multicultural Affairs at Rollins College and the Coordinator of Inclusive Excellence at Valencia College.



Jeanine Viau is Lecturer in the Philosophy Department, where she teaches courses in religion, humanities, and cultural studies. Her research areas include contemporary Catholicism, gender and sexual ethics, feminist theology, and queer studies in religion.

Bell hooks’ first practical suggestion for doing engaged pedagogy is that teachers must be vulnerable and integrate their personal narratives and experiences into their content and modes of facilitation. Self-disclosure extends to students in the process of community formation. hooks writes, “To hear each other (the sound of different voices), to listen to one another, is an act of recognition. It also ensures that no student remains invisible in the classroom. Some students resent having to make a verbal contribution, and so I have had to make it clear from the outset that this is a requirement in my classes” (1994, 41). We, the authors, as educators committed

to social justice and diversity, share hooks' "dream of education as the practice of freedom" (1994, 30), even if we are not always certain about the feasibility of the democratic learning environment that she imagines. For example, an instructor leverages her authority—her power to pass or fail students—in order to establish a "democratic" learning environment and dissuade apathy.

With these limits and possibilities in mind, we present serial testimony, the central practice of the Seeking Educational Equity and Diversity (SEED) program, as an effective modality for approximating intimacy and freedom in the classroom. Both authors were part of the inaugural SEED year at UCF in 2016–17, Rachel Luce-Hitt as the facilitator and Jeanine Viau as a cohort member. The National SEED Project was developed by Peggy McIntosh. She believed that educators needed to be at the center of their own professional development. Using a cohort model, SEED brings people together to explore issues of equity and social justice through the lens of personal identity and experience. There is no blame, shame, or guilt in the process. It is a peeling back of the layers of how one's perspectives were formed and how their personal story exists and interacts within larger societal systems as opposed to focusing solely on responsibility for individual intentions and actions.

Serial Testimony is at the heart of this process. The technique uses structured, timed sharing of experiences and reflections (not opinions), en round, without dialogue or response. McIntosh refers to it as the, "the autocratic administration of time in the service of democratic distribution of time." It values all voice and experience, limits the impact of traditional power structures, and provides an environment where multiple perspectives can be heard, side by side, without the need for approval, rebuttal, or response. The reflections below model the structure of serial testimony as we speak and hear each other into recognition.

Testimonies in Dialogue

JV: Since Participating in SEED, I have employed serial testimony in three of my classes—two GEP courses and one upper level undergraduate course. I used timed serial testimony to structure small group discussions in GEP classes pertaining to difficult course readings and topics, such as religious violence and structural racism. This strategy was somewhat successful as it increased participation and gave equal space to all students in the conversation. However, as these were medium to large classes, it was difficult to monitor the extent to which all of the groups adhered to the guidelines and how productive their conversations were.

More effective was the adoption in my upper level seminar Form & Fashion in spring 2017. I paired serial testimony as the core teaching and discussion strategy with auto-ethnogra-

phy as the primary research methodology. This pairing was very exciting for students and has renewed my confidence in the possibility of bell hooks' vision of educating the whole person. The course began with students choosing an article of attire that was important to them and preparing a personal introduction centered on the item they chose. Students shared their articles of attire and introductions using the serial testimony format. I acted as a participant among them in this exercise and in each stage of their research development. They designed research projects inspired by their articles of attire. Several students fully embraced the auto-ethnographic approach. Examples of student projects included a curly hair memoir, a handbag timeline of her mother's immigration journey, and a cross-generational study of beauty ideals.

RLH: I did not actually like serial testimony when first introduced to it. It was uncomfortable. Sitting in a circle, sharing one by one but within the constraints of a stopwatch, without any kind of responses or even gestures of acknowledgement, and honoring freely chosen silence if someone did not want to speak—it felt unnatural and cold. I participated because it was expected of me, but I was not sure how effective such a technique would be. Since that first go around many years ago, the "discipline of the circle" has proven me wrong, over and over again, as I witness its genius play out in my SEED cohort and other classes.

As long as I took the time to not only provide clear guidelines, but also explain the reasoning behind the structure, amazing things would happen. The quiet person in the room all of a sudden had something to say; it's not that they did not have anything to say before, but serial testimony gave them equal air time that they didn't have to fight for and gave value and respect to their experience. The person that always had something to say and typically dominated discussions was now put in a position where they had to learn to be concise with what they wanted to express; they had the opportunity to truly listen because it was no longer their role to carry the discussion. People could truly be heard. I could even hear and understand myself better. We all had the opportunity to learn and grow from each other and ourselves. That's what serial testimony can do, and it is more powerful than I ever imagined.

Applications for the 2019-2020 SEED cohort will open on April 15 and can be found on the Office of Diversity and Inclusion's website: diversity.ucf.edu. Please direct any questions to the UCF SEED facilitator, Rachel Luce-Hitt, at Rachel.luce-hitt@ucf.edu.

Walking in Their Steps: Learning History through the Role of Museum Curators The Sequel & The Surprise—An Ode to My Wonderful Teacher & Peers

Patricia Farless



Patricia Farless is Associate Instructor at the University of Central Florida where she has taught courses in American History, US Women's History, and US Legal History. Her research interests include US Women's Legal History, Constitutional History, 19th Century History, Women's History, the Civil War, and Reconstruction. Ms. Farless earned a BA in History and Political Science and an MA in History. She is an advisor for the History Department Online Program and for the Pre-Law in the Humanities Minor.

In Fall 2018, I had the fortune of participating in a Writing Across the Curriculum (WAC) Methods for Implementing Student Peer Review Course Innovation Project (CIP). This experience transformed my view of peer review as a possibility for my online large General Education Program (GEP) courses.

The Challenge: My GEP courses range anywhere from 150-250 students (with, perhaps, even higher enrollments in the future). Moreover, these classes are Gordon Rule writing courses. Like anyone who teaches large classes, I frequently daydream of the past when my classes were a mere 48 students. I ponder what life is like at a small liberal arts college with classes of only 15 students. Oh, the marvelously engaging assignments I could (and would) create. Yet, that is not to be. My charge is to harness “scale × excellence to = impact.” As a Knight through and through, I accepted this mission, spending many hours grading away on papers that left me (and, I’m sure, my students) wanting.

As noted in my previous *Faculty Focus* article, my earlier participation in a CIP Enhancing Active Learning Using Web-courses emboldened me to create a scaffolded museum assignment for my GEP courses. For their final projects, students create a digital museum exhibit. I love these projects, and so do they when the semester is over. ☺ Still, I wanted to do more and peer review provided the answer.

The Concern: With large classes, how could I assess student performance on content while creating even more writing assignments about the same content?

The Solution: Then, I met Landon Berry and the other Landon's Angels (Regina Francies and Iryna Malendevych). From our first CIP meeting, I was hooked. We discussed our challenges and fears of peer review. Yes, fears. As many of us have

experienced, students complain about peer review. They see it as “busy work” or that *they* “are doing *our* work for us.” To be honest, based on my previous experiences with peer review, I might agree. Throughout the semester, we grappled with these questions and concerns. The key to its success proved to be quite simple—create student buy-in by making it meaningful. In doing so, I learned to ask limited, but targeted questions, emphasizing one area of focus. Through targeted, low-stakes assignments students are guided through the process.

A “New” Approach: Before this CIP, I thought of peer review as something that is done prior to submitting the assignment. In our CIP, we learned a different tack, “The Landon” (as we call it). In this approach, students submit the assignment to the instructor first. The instructor grades the assignment and provides feedback. Students reflect on this feedback, revise it, and submit the improved assignments for peer review. Indeed, I require them to write a short explanation of the how and why they incorporated the feedback. Their classmate evaluates the revised work and how well they explained their revisions. This approach provides an opportunity to reiterate peer review as more than proofreading. It is invaluable as it emphasizes how creating a project is a process, rather than a destination. A worthwhile intellectual endeavor requires ongoing input, revision, reflection and additional input.

Professionalization—In addition to speaking about peer review as promoting higher-order thinking through reflection and a collaborative process, it must be noted that its importance rests with preparing students for their professions. While higher-education continues to face economic and political assault, we know that our students will leave our institution prepared to be leaders in their fields. Indeed, that is our charge. Because it is through the democratization of the critique that peer review reflects our students’ future work-spaces, support systems, and demands. As our students move into their professions, they will depend more on their peers for project guidance and support, rather than an employer or single expert. Moreover, some of our students will become teachers. Peer review knights them as stewards of a peer’s creative work. Learning to diplomatically critique cannot be underestimated in its value.

Peer-Review Challenge: The challenge with peer review is it requires additional moving parts. How do you “sister on” additional assignments in a brief 16 weeks, allowing time for grading and providing feedback on the initial assignment, then allowing student reflection and implementation of feedback, prior to re-submitting the revised assignment for their peer, and for the peer to have time to critique the revised submission? It is indeed a challenge, but still worth it!

Example of Peer-Review Assignment:

Task: This task consists of several steps. Post your revised (incorporates our feedback) museum presentation. Include a 150-word explanation of the steps taken to include this feedback or to explain additional areas of research progress (if you received a perfect score). For example, if you were asked to be more specific in your analysis of the artifacts, identify how you more precisely evaluate the artifacts' success in supporting the narrative. If you included additional examples of how your museum related to the subject, what examples did you choose and why?

Interactive Components: Your revised museum project will be subject to review by a peer. You must submit your revised museum presentation by 10/21 at 11:59 p.m. Peer review submissions must be provided by 10/28 at 11:59 p.m. Please note that late submissions are not allowed.

Evaluative criteria: As noted, to participate in any part of this assignment, you must serve in both roles (author and reviewer). Missing the submission deadline will result in a 0 for the assignment. Your fellow students will evaluate your work based on the below questions. Additionally, to receive credit as the reviewer, you must substantively answer the below questions.

1. Name and museum presented.
2. What feedback did your classmate incorporate into their revised assignment?
3. How clear were they in their explanation?
4. How effective did they incorporate the feedback?
5. What specific suggestions do you have to help them improve their presentation? Must include at least 1 substantive suggestion.

The Surprise—I was fortunate to work with two amazing peers and an incredible teacher. Out of our CIP came the emotional-professional support and friendship that so many of us struggle to maintain as we hunker down each semester. Our cohort now gathers regularly for the support that is often needed when we try something new in our classrooms. We offer support, insight and peer review of each other's assignments and professional goals. We are Landon's Angels and are ready for whatever lies ahead. Make the most of your FCTL CIPs, including nurturing your teaching soul.



Lightboard at the Faculty Multimedia Center

Jim Clark



Jim Clark is Lecturer in the History Department. He began as an adjunct in 1987, and joined the faculty in 1999. He holds his doctorate from the University of Florida and is the author of nine books.

Marie Whyte, an associate professor of finance in the College of Business Administration, said, "Since my course involves a lot of problem solving, the Lightboard has been an excellent way to illustrate how to solve problems. I think it works best in online, RA, or MM formats where the videos can be posted for students to watch at their convenience."

The operation is simple: A faculty member puts a flash drive into the unit, stands behind a large piece of glass, pushes the start button, and begins talking. The glass board can be used for writing key points or formulas, or for slide presentations. The technology reverses the print on the board and students see the formula or key points. The videos are on the flash drive and can be used in a number of ways. The learning curve is about a minute. The Center for Distributed Learning helps faculty integrate the videos into online courses, and CDL can assist in providing captions for the videos for online courses. <https://cdl.ucf.edu/services/multimedia/proactive-captioning/>

Lightboard has been available for several years, but word has spread slowly about its advantages. Arianna Davis took charge of the FMC earlier this year and has been promoting it. "One of my favorite things is when we get to show a faculty member how to use it for the first time. They get so excited you can almost see the wheels churning as they start thinking of ways they can use it in their course," Davis said.

Lightboard has been heavily involved in redesigning courses. Alyssa Albrecht, an instructional designer for CDL, spent an afternoon in the studio with a faculty member recording multiple videos for the Course Redesign Initiative. Davis offers several tips for using Lightboard:

- Dress in solid colors, preferably not solid black or solid white. Blue or grey is always a good option.
- Use a black background and white text for your PowerPoint slides. Also, the larger the font size, the better.
- Keep your videos short; your students will appreciate it.
- Don't be afraid to try something new!

As demand has increased for using Lightboard, a reservation system has been set up. Faculty can go online to make a reservation: <https://oir.ucf.edu/fmc/>.



Writing text and formulas using the Lightboard.

Connecting with students can be difficult. Explaining a complicated concept or formula can leave students scratching their heads. And it can be very difficult in online courses where an email or a blog often fails to convey the lesson.

Increasingly, faculty members are turning to Lightboard, an easy-to-use technology offered by the Faculty Media Center in Classroom Building 1. Not only does it work well with online courses, it is also being used for all modalities, including the new RA modality in the College of Business. Dr. Ann

Submissions

The *Faculty Focus* is a publication for all instructors at the University of Central Florida. This includes full-time and part-time faculty and teaching assistants at all UCF campuses. Its purpose is to provide an exchange of ideas on teaching and learning for the university's community of teachers and scholars. It is envisioned that this publication will inspire more dialogue among faculty whether in hallway discussions, departmental meetings, or in written articles. This represents an opportunity for faculty members to reach their peers throughout the growing UCF community. The *Faculty Focus* invites you to contribute your ideas on teaching and learning in a short essay. See the guidelines for submission online at <<http://www.fctl.ucf.edu/Publications/FacultyFocus/submit.php>>. Please send your submissions to fctl@ucf.edu.

The ideas and opinions expressed in the articles featured in the *Faculty Focus* belong to the authors and do not necessarily reflect those of the Faculty Center or of UCF.



Faculty Center for Teaching and Learning

Division of Teaching and Learning

Karen L. Smith Faculty Center for Teaching and Learning
P.O. Box 160066 CB1-207
Orlando, FL 32816-0066
407-823-3544

Check us out online!
www.fctl.ucf.edu