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About Us

Currents in Teaching and Learning is a peer-reviewed electronic journal that fosters exchanges among reflective teacher-scholars across the disciplines. Published twice a year, Currents seeks to improve teaching and learning in higher education with short reports on classroom practices as well as longer research, theoretical, or conceptual articles and explorations of issues and challenges facing teachers today. Non-specialist and jargon-free, Currents is addressed to both faculty and graduate students in higher education, teaching in all academic disciplines.

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EDITORIAL

Making Up for Lost Time

—Benjamin D. Jee

Dear readers of *Currents in Teaching and Learning*,

For many of us, fall 2021 marked a return to the classroom after more than a year of remote instruction. I began the semester optimistic about the chance to reclaim the physical space of the classroom, and to draw on the intellectual energy of my students, live and in person. And, indeed, it felt good to be back. However, I quickly realized that the return to the classroom was also shadowed by a cloud of uncertainty—about what to expect from my students, whether and when they could attend class, and how to adjust my plans when our circumstances changed. I had naively assumed that I would find my groove—the "new normal"—but came to understand that, in reality, there was no predictable routine to fall in to. From conversations with my colleagues, this was one reason why the past semester of reentry was perhaps even more challenging than the year before. Despite its drawbacks, remote instruction was generally predictable and controllable. The once-familiar classroom now felt like anything but.

Colleagues across a number of colleges and universities also remarked on the "learning loss" that was apparent in students' performance on routine tests and assignments. The effects of a remote year—and of the accumulated stress and hardship of an ongoing pandemic—came into focus. Of course, these consequences have been felt at all levels of our education system, and around the world. In a study of student performance on national exams in The Netherlands, for example, researchers found that students learned little while taking classes from home, especially those students who were disadvantaged from the start (Engzell et al., 2021). As the authors of the aforementioned study point out, The Netherlands is perhaps a "best-case" scenario, owing to its equitable school funding, and high levels of Internet access. In the United States, the pandemic has disproportionately affected those from racial and ethnic minority groups (Roman et al., 2021). As we come to grips with the educational fallout of the remote year, we are reminded that many pre-existing inequities not only remain but have worsened.

Reflecting on my own teaching, I often faced the dilemma between making up for lost learning on the one hand, and, on the other, accommodating students' legitimate (and continuing) challenges; in a sense, between pushing harder and pulling back. I can't say that I resolved this dilemma. In the end, I tried to meet my students where they were, and to help them make progress toward their individual goals in my courses. I adjusted deadlines, provided opportunities to revise assignments, and placed more weight on effort and improvement than on sheer quality of performance. I still worried about learning loss, but I also worried about losing students entirely, especially those from disadvantaged backgrounds who bore the brunt of the pandemic.

As we all have grappled with countless pedagogical challenges over the past many months, I have come to appreciate more fully the scholarship of teaching and learning. Access to new ideas, rigorous evidence, and useful teaching resources is immensely beneficial. I am grateful to be a part of a journal that speaks directly to the needs of our current moment in higher education. As always, I hope that you find the present issue of both inspirational and useful as you confront the pedagogical challenges ahead.

The present issue of *Currents* contains a number of thought-provoking pieces. In the article, "Knowing Who's on Your Team: Pedagogical Expertise and the Impact on Software Design" Catrina Mitchum, Nicole Schmidt, Kayle Skorupski, and Rochelle Rodrigo examine historical and other factors that determine the digital tools adopted by educators. They advance the argument that subject matter experts should be involved in the design of educational software, and discuss how expert-informed software can improve teaching and learning, using the example of students' peer reviews of written work. By facilitating students' exchange of ideas, peer review can be made both more meaningful and more manageable through the right digital tools. In another thoughtful teaching reflection, Viranga Perera discusses ways to harness students' interests in a science

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course for nonmajors. Perera's article, "Our Moon: A Multidisciplinary Course to Develop Students' Interest," describes how students incorporated their individual skills and interests into creative projects about the moon, including the moon's significance in cultural traditions, the history of the lunar missions, etc. Perera generously shared the online course materials with readers, and encourages instructors to use and extend this work.

Engaging students' critical thinking is a goal in every course. In "Encouraging Critical Engagement with Course Readings Through Focused Reading Responses," Laura Kane describes how *focused reading assignments*—writing prompts designed to elicit students' critical engagement with a text—can be used to improve student learning from course readings. By providing structure to students' responses, this approach also facilitates instructor feedback, streamlining an often-daunting task in writing-intensive courses. In "Flipping the Classroom in Project and Team-Based Learning: COVID made me do it!" Courtney Kurlanska discusses how highly-interactive student activities can be transitioned into online and hybrid formats. Kurlanska grappled with this challenge in spring 2020, which involved a sudden pivot to online instruction, but draws broader lessons and insights from the experience. In "Using the Motivational Framework for Culturally Responsive Teaching to Guide Assignment Design and Implementation," Christine Martorana highlights the importance of cultural responsiveness in teaching. Martorana describes the visual snapshot journal assignment, which empowered students to make personally meaningful connections with an academic text. Martorana provides examples of students' work that attest to the benefits of this culturally responsive approach.

Each article in the present issue explores ways to increase students' meaningful engagement with course materials and with their classmates. Yet, even the best pedagogical plans can unravel if students become distracted or disinterested. In their review of James M. Lang's, "Distracted: Why Students Can't Focus and What You Can Do About It," Aleel Grennan and Daron Barnard present some of Lang's research-based suggestions for cultivating students' attention in the classroom. As they discuss, distraction is not a byproduct of the digital age, nor is it unavoidable, even in remote learning environments. Given the myriad demands on students' attention—and our own, for that matter—a deliberate approach to attention management could enhance the effectiveness of our teaching in any context.

As we embark on another semester under the shroud of the ongoing pandemic, I hope that you find encouragement and inspiration in the scholarship of teaching and learning. I thank all of the authors for contributing their work to the present issue. I am incredibly grateful to the reviewers, copyeditors, and members of the *Currents* advisory board who have devoted their time and energy to the journal. I appreciate Jonathan Tegg's assistance with updating and improving the *Currents* website. As always, Dr. Linda Larrivee has supported the journal every step of the way, and is constantly working to improve all that we do. Finally, I thank you and all of our readers for supporting *Currents*. I look forward to another year with you.

Until next time,

Benjamin D. Jee

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REFLECTIONS

Knowing Who's on Your Team: Pedagogical Expertise and the Impact on Software Design

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Abstract

Striving to solve specific pedagogical problems with specific technologies is crucial to student learning. In a search for a tool that worked well for digital peer reviews in writing and public health courses, we discovered one that provided the space for peer review. The initial purpose of the project was to consider how a specific digital peer review tool impacted our pedagogical approaches to teaching the review process. The project relies on instructor reflections regarding the uses and impacts of this tool on their peer review pedagogy. It was concluded that educational technology tools created by subject matter experts have a positive impact on the improvement of the specific pedagogical processes for which the tool is created.

Keywords:

Eli Review, Pedagogy, Peer Review, Subject Matter Expert, User-Centered

Digital technologies wear many hats. They are used to create programs that follow algorithms and embody a wide scope of communicative activities. Educators use digital technologies for a vast array of purposes, from online quizzes to providing cyber-arenas for discourse between students and their teachers. These diverse applications of technology in education have sparked an ongoing debate between those who understand digital technologies as a socially-mediated set of culturally-defined practices and those who perceive them as neutral tools to be developed and used by humans in culturally non-specific ways (see Archer, 2006; Feenberg, 2012; Harris & Greer, 2016; Mina, 2019; Paesani, 2016). Hinrichsen and Coombs (2014) observe a "consistent tension between perceptions of technology as either neutral or culturally situated, along with the implications each view has for policy, practice and curriculum" (p. 2). This acknowledgment that technology impacts educational policy, a generally undisputed claim, lends further support to the idea that technology itself is far from neutral.

This lack of neutrality can shape pedagogies in ways that can be problematic or ground breaking. As instructors find, select, and implement new technologies in their classrooms, it is important to reflect on how our adoption and use of tools impacts that pedagogy. Understanding the purpose of the tool is critical to reflection at the adoption stage. When educators cannot find a tool that is purposefully designed for their pedagogical problem, they must creatively adapt tools outside of their purpose.

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These limits shape pedagogies, but imagine what using a tool designed with educator users in mind would be like.

Who's on First: Technology, Agency, and Bias

Technology impacts the way that tasks are performed across all professions, with the goal of making our work more effective (Ertmer & Ottenbreit-Leftwich, 2010; Zuboff, 1988). For educators, this means using technologies in ways that improve teaching and learning. As new technologies have rapidly replaced old ones in today's educational landscape, teachers must regularly update their skill sets to perform as global citizens of multicultural digital environments (Daher & Lazarevic, 2014). Mishra and Koehler (2006) argue that "intelligent pedagogical uses of technology require the development of a complex, situated form of knowledge" in which teachers simultaneously integrate what they know about technology, pedagogy, and the content they are teaching. Unfortunately, though, many software programs used in schools are poorly designed for an educational setting, which further compounds the problem of teacher implementation (Mishra et al., 2007).

When selecting instructional technologies, educators and researchers alike agree that we need to choose the tools that will help us to solve a problem in the classroom and that we need to pay close attention to the impact of those technologies on our pedagogy (Darby & Lang, 2019; Kirsch, et al, 2016; Marlow et al., 2009; Selfe, 1999). Focusing on problem solving ensures that technology is not just being used for the sake of using new technology. It means that the technology selection and adoption criteria are focused upon a pedagogical problem. However, it is easy to forget that the software applications we use are designed by other people, and sometimes those people are not designing with sound pedagogical practices in mind.

Sometimes, the lack of pedagogical knowledge is because these creators are not subject matter experts (SMEs) in education (McGee & Ericsson, 2002). Working with software designed by people who lack formal training in pedagogy, especially the pedagogy of a specific field or discipline, often means that, as educators, we are required to creatively consider how we can make the technology work within our existing pedagogical practices. In other words, we ask ourselves, 'how can we adapt this tool to be useful in our own classrooms to solve our problems?' Instead of simply using a tool, we often transform some aspect of our teaching to use the tool effectively.

Arguably, course design is *never* a neutral process (e.g, Blumberg, 2009; Hannafin & Hill, 2002; Wiggins & McTighe, 2005), and current software used in educational settings often follows a model which places the instructor, rather than the student, at the center of instruction, reinstating the "teacher-centered space of the traditional physical classroom" (Harris & Greer, 2017, p. 47). Harris and Greer argue that, in order to transfer the power back to the student, instructional software should be developed by subject matter experts (SMEs). Much of the software used in today's classrooms, however, is produced for stakeholders in corporate, rather than educational, environments. These software developers are less likely to consider the student-centered model, which is valued in educational settings, nor are they likely to consider the multifaceted demands placed on the teacher to integrate a certain digital tool into their course-specific content and pedagogical approach. In this paper, we argue that software designed especially *for* educators *by* experts in education will improve the teaching and learning experience. This claim is based on our experiences integrating a peer review technology designed by SMEs to make the peer review process easier in our classrooms.

As educators, we want our technologies to be part of the learning cycle instead of merely a vehicle for the consumption of technology and information (e.g., Ertmer & Ottenbreit-Leftwich, 2010; Zuboff, 1988). This focus on learning means the technology needs to help students explore, invent, and/or apply a concept or skill. Technology, from this perspective, is integrated into the learning cycle rather than the other way around, which brings us to the current struggle. There is a need for us to guide students to solve problems, but when we are forced to adapt the tools we already use to solve our pedagogical problems, how are we ensuring that the tools give us the space to guide students? How does this set teachers up differently than the corporate models, where students are consumers rather than problem-solvers? To engage students in the learning process, instructors need to question the cultural bias implicit in the technologies that are available (Selfe, 1999). We need

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to question the tool's purpose, our purpose, and how the two work together (or against each other) to guide active student learning.

What's on Second: Software Design, Command, Control, & Education

The original purpose of the tools we use is important because that purpose defines the tool's creation. The story of technology, its inherent biases, and how we use it to teach writing can be traced back to the mid-twentieth century in the U.S. military. The US military has had a great influence on educational objectives and research since the World Wars, and the military prerogatives of technological innovation, command, and control systems have influenced higher education through education research, artificial intelligence, cognitive science, and instructional design (Noble, 1991). For example, in the 50s, 60s, and 70s, the military's need for automation and semi-automation led to advancing AI, with the help of cognitive sciences, with the goal of the computer and humans working together in a system (Noble, 1991). Fast forward to 2016, and meet Jill Watson. She is Georgia Tech's AI online graduate assistant; essentially, she is a bot who answers frequently asked questions (Eicher et al., 2018). However, Jill shows the bias in her programming by responding quite differently to male and female students who indicate they would soon be parents (Eicher et al., 2018, p. 90). This does not mean these applications are not useful, they are game changing, but they are flawed as a result of the original intended purpose and context: automation within the military.

The influence of corporate America on higher education also has long been problematic because it impacts the higher education model and argues for very specific "job" related skills as the focus of higher education (Giroux, 1999; Yoshimura, 2008). These arguments will not be addressed here; however, considering the proliferation of technology (which is developed and sold by technology companies) in our culture, it is important to consider the impact of those corporations on our education spaces. Students are required to type papers, use email addresses hosted by specific companies, and access course content online in proprietary learning management systems. Education-based conference exhibit halls have more technology companies than they did ten years ago, but that does not mean they are pedagogically-driven technologies. Educational technology in the areas of testing, assessment, course delivery, content delivery, content creation, etc., are mainly developed by for-profit corporations (Picciano & Spring, 2013). Both military and corporate influencers of educational technology have the same shortcoming: the initial intended users are not educators or learners and the initial, or current, primary purpose is not learning.

I Don't Know's on Third: User-Centered Design, Iterative Design Practices, Subject Matter Experts

The influence of military and corporate sectors on educational technology in higher education includes a focus on user-centered design. However, the user is different across those three spaces. In higher education, learner-centered pedagogy is considered best practice because of the need for education to be individualized (Meyer et al., 2014); we also practice iterative design by taking learner experiences into consideration to continually improve our practices and spaces (Baldeón et al., 2018; Eby & Lukes 2017). The learner-centered shift in higher education can be paralleled with the private sector and military sector ideas of user-centered design (Altay, 2014; Noble 1991).

While military values and learning philosophies shaped much of the technology in the mid-20th century, the integration of semi-automation meant that the "user" (military personnel) needed to play some role in the research of these programs. For example, the Air Force needed to consider the "human-computer interaction" that was taking place between their pilots and the new control systems in their jets (Zuboff, 1988). Drawing connections between the learner/user brings up problematic images of corporatization and militarization of higher ed, and our technologies typically come from the military-influenced private sector, where they are defining and catering to specific users. However, military personnel and corporate users are very different users than higher education instructors, and the need to focus on the intended user of a program remains paramount to selecting a technology.

Why Left Field: Focusing on the Pedagogical Problem

After considering the purpose and intended user of

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the technologies, we need to focus on the problem we are solving. Our established problem in selecting a new technology is the teaching and learning of peer review to support student writing (e.g., Henry & Ledbetter, 2011). We were largely frustrated by the lack of options for robust peer review within our LMS. Beyond using the discussion boards, there was no way to really prompt students to interact with their peers' work in meaningful ways. We found ourselves relying on collaborative word processing tools like Google Docs for peer reviews. At our institution, one of the most widely used tools among students, faculty, and staff is the Google Workspace, which is adopted and supported by our institution. However, Google Docs was not created for the specific purpose of the graded online peer review. The intended user is much more capacious than that. One of Google's key strategies is "related diversification," which means that their products are targeted to incredibly broad and general audiences (Finkle, 2012).

Google's quest to diversify their products perhaps amplified their appeal to a broader range of users, which resulted in the widespread use of Google Docs in the field of education (Moore, 2016). However, despite its popularity, Google Docs were subject to criticism from users within specific academic writing contexts. The lack of defined structure proved challenging for both teachers and students to keep track of each student's contribution to collaborative documents (Al-Samarraie & Saeed, 2018; Zhou et al., 2012). Additionally, students worried that classmates could negatively impact their work through unregulated collaboration (Blau & Caspi, 2009). This tool, while useful, was not targeted specifically to the academic writing context.

At our institution, we also had access to PeerMark, which is a peer editing tool and part of the Turnitin platform (TurnItIn, n.d.). When first developed by graduate teaching assistants, the goal of the PeerMark was to engage students in the course, with one another, and to help students better understand what an "A-paper looks like" (Rivero, 2010). PeerMark allows instructors to assign free response and scale questions and the number of papers to review (TurnItIn, n.d.). After peer review is completed, they are able to review feedback on their papers that they can use to improve their future work (TurnItIn, n.d.). Although PeerMark claims to follow user-centered design practices and the user appears to be the student, it is still missing important pieces to support the student user. The program is lacking areas for student reflection on feedback and student planning on how to utilize the feedback, which are critical steps in effective peer review (Kieft et al., 2007; Sommers, 1980). This suggests that the user should be those teaching the processes as well as those completing the process.

As we were searching for a new tool, Critique'It was a program some of us had heard of and used before at prior institutions. Critique'It is an online review program that allows for audio, video, and text-based comments on a variety of types of work and, as stated by co-founder Alexa Fleur on the (now-removed) Critique'It website, follows user-centered design. However, the intended users are, again, the reviewers, not instructors trying to use a specific pedagogical tool for a specific pedagogical purpose (like peer review). The lack of expertise in facilitating/teaching peer review is evident in the lack of tools for guiding the reviewers or for reviewees to process the reviews.

Because we Center SMEs: Putting the "Special" in Specialists

There is much to be said for the humanistic, self-critical use of instructional technology in the writing classroom (Selfe, 1999). Selfe reminds us that we, as teachers, need to become more critical users of technology, which involves developing a deeper awareness of how "technology is inextricably linked to literacy and literacy education" (p. 414). Selfe warned against developing an "overly narrow" version of literary practices, and she urges "composition specialists," rather than corporate or government entities, to lead the development of a "diverse range of literacy practices and values" (p. 430). Similarly, Klein and Duffey (2009) claim the need for writing studies specialists to be consulted and part of the decision-making process when adopting institution-wide technologies to support writing instruction. Composition specialists, with their humanities-based training, offer a unique perspective on literacy, education, and society at large. Thus, they should be part of the teams that navigate the adoption of digital technologies in courses that require writing.

When teachers become critical users of technology, they operate with the newfound agency to design digital

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learning experiences. For some, the necessity of this critical inquiry into what our technologies do, what they support, how they impact us, our classrooms and our students, has raised the question of whether or not everyone should learn to code these programs—'code or be coded.' For example, some argue against the use of design templates as they take away agency (Arola, 2010). Learning management systems, and other teaching technologies used online and in classrooms are built as templates; the platform and design template is chosen *for* the users (Arola, 2010). Educators add learning objectives, content, and assignments to designated areas, to complete the learning environment. Though the idea of template-driven technology is not going anywhere, a technology that is designed with the pedagogical framework in mind will greatly benefit the instructors and learners. We are not arguing that SMEs should all learn to code, but rather that more SMEs should be on the development team for pedagogy-specific technologies.

Eli Review up to Bat!

After pushing technologies like the Google Suite, PeerMark, and Critique'It to their perceived limits in our classrooms, we found, when searching for a technology to facilitate peer review, that we, as teachers of peer review, were not the intended users. The technologies we used were not tools for teaching peer review and building trust between reviewers (Crisp & Bonk, 2018). Rather, they had different goals and different users in mind. The users of the first applications we adopted did not necessarily need to monitor and grade comments, keep track of revisions and timestamps, show that they valued peer review, encourage student agency in being student reviewers, or align activities with learning outcomes. While such goals may be possible to accomplish using these tools, teachers are often challenged to alter their own systems and practices to make the tool "fit" the curriculum. It was not always a natural or harmonious process. After a bit of searching, we discovered Eli Review, which had, seemingly, been developed for use by experts in teaching peer review who had witnessed instructional technologies from our vantage point, as teachers of peer review.

Tomorrow's Pitching: Culturally Nuanced Technologies and Teacher Impact

In comparison to the other tools presented in this paper, Eli Review was created by writing studies experts with experience in studying the impact of peer review and the importance of feedback and revision to the writing process (Eli Review, n.d.b). Jeff Grabill, Bill Hart-Davidson, and Mike McLeod, who followed evidence-based practices while creating Eli Review, were all faculty in the Writing, Rhetoric, & American Cultures department at Michigan State University and researchers in the Writing in Digital Environments Research Center (Eli Review, n.d.a). Additionally, the builders of Eli Review are writing teachers "frustrated" by a lack of tools to support their teaching of peer review (Eli Review, n.d.b). As teachers, they have designed a technology that prompts other educators to revisit their peer review pedagogy in ways that improve the teaching and learning of feedback and revision.

Thus, in the fall of 2018, we (four higher education instructors) piloted the use of Eli Review in a total of 6 courses. We created a quick reflection template for ourselves to use at the beginning of the process. When we started the process, in our reflections on why we were implementing Eli Review, we largely were trying this new program in order to improve our pedagogy in a variety of courses, projects, and spaces (including writing, online, multimodal, and nutritional science). One of us reflected on our frustration with "the lack of an easy way to facilitate peer review in the online setting. I enjoy using technology to humanize the course and allow for similar interactions that occur in a traditional classroom setting." Another within our group explained her motivation to explore how Eli supports student engagement while making "students accountable for considering and integrating peer comments into their revisions."

To summarize our collective reflections, we each wanted a tool that we could use to scaffold the peer review and revision process while developing an atmosphere of collaboration among our students. We wanted to make it easier to navigate the often surprisingly complex task of facilitating peer review activities while simultaneously humanizing online learning.

How Eli Review Works

Eli Review has what they call a review cycle that includes four stages. First, students post their written

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assignments to the program. Next, students practice giving and receiving feedback within peer review groups, which can be set by the instructor or randomly generated. After that, each student is required to craft a revision plan based on the feedback they have received from their peers. Finally, they resubmit their revised work. These stages are referred to as "writing task," "review task," "revision tasks," and "resubmit tasks," respectively. Each review task has specific "response types." These response types include:

- Trait identification, which involves instructor established traits that students check off for the work they are reviewing;
- Rating scales, which involves the instructor writing a statement or question and asking students to respond on an instructor defined scale of 1-25 stars (e.g., On a scale of 1-10, how clear is the research question?);
- Likert scales, which involves the instructor writing a statement or question and asking students to respond with a specific, instructor written, response select (e.g., The student work is properly formatted in APA style: Strongly Agree, etc.);
- Contextual comments, which involves the instructor asking students to write open-ended text responses to specific pieces of the work that is being reviewed; and
- Final comments, which involves the instructor asking students to provide final, overall thoughts about the work.

How We Used Eli Review

After we piloted the program in our courses, we individually spent some time reflecting on the ways we used the tool and the impact of the tool on our teaching. All four of us tied our use of Eli Review to at least one major composition (text-based or multimodal) in their course. After the course ended, two of us designed a reflection tool as a space for the four of us to reflect on our use of Eli Review and to comment on the required student engagement in their courses (adapting questions from the Faculty Survey of Student Engagement). We also collected student survey information, but it was for internal assessment for the institutionally supported pilot, and so not IRB approved.

In our responses, we agreed that Eli Review was easy to use and that it helped us to give students better, and more specific, feedback. There was also a shift in perceived value from less useful to more useful (even for the writing studies scholars among us). Eli Review allowed us to provide more targeted feedback criteria and questions for the students, and it allowed us as instructors to endorse review comments and give feedback on the revision plan. While that can also happen in other programs, Eli Review allowed students to see it all on one screen. For students doing digital peer review, that can be very important (not having to click back and forth between a list of questions in the LMS and the document they are looking at). It also helps ensure they are not missing any elements in the review. More importantly, we anecdotally felt that Eli Review allowed our students to start thinking about what to do with all the feedback they received. The revision plan task guided them to pull the feedback they felt was most useful in their revision process and discuss the value of the feedback and how they might revise their work based on that feedback.

Collectively, we identified more global changes to our pedagogy, such as building in more scaffolding steps during assignment development. While we always scaffold technologies and major assignments, Eli Review's functionalities pointed us to spaces within our scaffolding that needed further breakdown and structure. As one of us noted,

> "Using Eli Review prompted me to consider different types of ways I could utilize peer review in the course, using the different types of prompts available in Eli Review including the rating and Likert scales. This availability of different types of rating/evaluation opens up the possible types of feedback I can ask students to provide to each other."

In our fully online accelerated courses, we heavily scaffolded the technology and therefore use of the program, which made teaching peer review a larger focus in the class. This resulted in more peer review opportunities and methods made for more peer

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contact—more ways for students to easily interact with one others' content. The combination of more peer review assignments with better designed peer review assignments lead to our perception of "students being more comfortable with giving the reviews. Students were initially hesitant, as they often are, about peer review, but providing more structure and indicating that giving better peer reviews and learning what to do with the ones that were received as a goal of the course, students were more receptive."

We also identified specific ways our peer review pedagogy was impacted that align with good peer review pedagogy practices (Søndergaard & Mulder, 2012). We gave students more concrete, specific, and defined grading criteria, which then also impacted our rubrics. Specifically, the "trait identification" function in Eli Review prompted us to identify and clearly articulate observable and measurable aspects that students should be producing in their writing. Peer reviews were also better organized because they allowed for a single, streamlined space for students to do their work and potentially provide better reviews. This was not a change we actually needed to make, but instead was a built-in benefit to the program.

We also discovered, through the process of observing our students as they moved through the peer review and revision process, that the Eli Review tool supported personal responsibility and accountability in our students. We surmised that this may have been because "it recorded everything - timestamps, who said what, rate of completion, etc." Having all of this metadata in one screen made it easy for students to track their own progress, as well as their peer review partners' progress.

Some of us also leaned heavily upon Eli Review's built-in resources for new ways of describing what should happen in a peer review, and we began to consider other ways to more actively improve the peer-review process. Finally, Eli Review provided built-in space for students to easily process and synthesize the feedback they received, for both written and multimodal texts. In one class, students reviewed both traditional alphabetic texts (proposals for their multimedia projects) as well as the multimedia projects themselves.

Although the argument could be made that all of these built-in features limited teacher agency, a counterpoint is that they were designed by writing teachers, for writing teachers; thus, they suited the intended context, and perhaps this is why we perceived them as more facilitative than restrictive. Finally, Eli Review prompted us to reconsider what and how we were asking students to focus on their peers' work. Throughout the semester-long trial period, we used Eli Review to prepare our students to complete major projects, collaborate with each other, and scaffold their writing process.

Today's Catching: What We Learned

We set out to solve the pedagogical problem of peer review in digital spaces and found the Eli Review program solved other problems. We found that the technologies available to us were not providing us space for meaningful peer review and that our own pedagogy was positively impacted by implementing this program. We solved the problems of fostering and sustaining meaningful peer review and feedback, specific instruction and tools for providing that feedback, and showing students that we value peer feedback. Eli Review allowed/forced us toward these solutions with their resources, review task options, and limited instructor interaction. These are the benefits of using a program designed for a specific task to be executed by a precise group of users, and created by experts that are well informed about the best practices for that specific task and those users.

We also learned that digital tools developed by SMEs for specific user populations can support the agency of both teachers and students. Teachers who facilitate the use of these tools are equipped with a set of templates and processes suited to their educational contexts. This liberates them to deliver meaningful peer review activities for the writing assignment of their choice, instead of spending precious preparation hours tweaking activities which use tools that do not align as seamlessly with their pedagogical goals. It also emboldens teachers who lack coding skills, or the motivation to learn those skills, to use high-quality digital tools effectively and efficiently in their own classrooms. The "design of the space shapes understanding" (Arola, 2010, p. 12), and designs by SMEs allows for more appropriate template design for these specific learning environments.

Anecdotally, Eli Review created space and community

Knowing Who's on Your Team *continued*

for students. In Eli Review, the instructor cannot comment on the student writing in the program; they can only add comments on the peer feedback in the revision plan after it is developed. This positions students as agentic forces in their own peer-review processes. Students are required to act independently, to solve their own composition problems, and to assist their peers in problem-solving endeavors. Thus, the structure of Eli Review effectively decentralizes the role of the teacher and positions students as the main actors. This decentralization shows students that the peer review process is a valuable skill that they can learn to use independently.

Furthermore, any opportunity for students to work with each other leads to a sense of belonging and community, which is especially important in online and distance learning applications, but also for in-person classrooms. The use of tools that engage students with each other helps to build a learning community (Berry, 2017). The process of peer review requires knowledge sharing, which develops a community in the online classroom (Waycott et al., 2013). Using Eli Review allowed another layer of student interaction, which, either online or in-person, helped facilitate the development of a classroom community.

Through our first pilot with Eli Review and continued use in our classrooms, Eli Review has been not only interested in hearing our feedback but also has followed through with updates to the program to meet the needs/wants that were determined through the use of the program in our classes. Eli Review has been very responsive to our feedback, and several changes have been made to the platform through continued use by several instructors.

I Don't Give a Damn: Instigating a Pedagogically Sound Technology Revolution

We were interested in trying Eli Review because, simply put, peer review is hard. It's hard to teach; it's hard for students to do well, and it's especially hard when the peer review tools are not built for the teachers and learners who use them. Despite this, peer review is an essential practice that encompasses a very important skill set for students in higher education.

We argue Eli Review improved our understanding and design of peer review activities in our teaching. We also believe our students had more productive and positive peer-reviewing experiences with Eli Review than they did with other tools. We, especially as teachers of writing, acknowledge, however, that Eli Review is not a technology that students are likely to use once they leave the academy. As with us, they are likely to continue using browsers and word processors and social media that have the core design rooted in other cultural needs and practices. However, the goal of Eli Review is not to be used outside of specific pedagogical spaces; instead, it is a teaching tool intended to help instructors facilitate the learning of giving and receiving reviews. Context is everything, and Eli Review's greatest strength is that it is intentionally situated within the context of its users in higher education.

We also argue that tools with SMEs on the design team that are targeted to users in higher education settings, support the development of agency of both teachers and students. In this sense, the agency is a positive correlation. As teachers gain more, students do as well. For teachers, tools designed for specific pedagogical contexts offer the freedom to explore their pedagogy while being supported, rather than constrained, by technology. For students, these tools offer a more centralized role in the classroom and scaffolded development of critical thinking skills which are required for composing and revision texts.

For our purposes, Eli Review clearly articulates and facilitates the processes in which instructors teach and students learn peer review. Whether the instructor is teaching a writing course or assigning writing in a content course, working with an application designed to pedagogically support the teaching of peer review is the batting cage we did not know we needed; the practice and scaffolding that made us better teachers of a better peer review experience. We need more programs to facilitate specific pedagogical moves. Furthermore, our experience with Eli Review supports the notion that technology is indeed not neutral. It matters who develops it, who uses it, and in what context it is used. When a well-developed tool is adopted by its intended user, it can provide an empowering experience to all users.

Knowing Who's on Your Team *continued*

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REFLECTIONS

Our Moon: A Multidisciplinary Course to Develop Students' Interest

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Abstract

It is important for educators to help students develop interest in a topic so that they are driven by that interest to learn. With that as a primary goal, I designed and taught an undergraduate course that introduced students to the Moon from a multidisciplinary perspective. The *Our Moon: From Imagination to Exploration* course involved active lectures and projects designed by students. Here I discuss how I planned and implemented the course based on an interest framework. I give examples of lecture content covered in the course as well as examples of student projects. I believe that students at different colleges and universities will find this course interesting and I encourage educators to improve and teach the course at their institutions. It will be important to conduct research in the future to gauge changes in student interest pertaining to the Moon as a result of them taking this course.

Keywords

The Moon, interest, multidisciplinary, undergraduate, course design

When I got the opportunity to teach an undergraduate course about the Moon at Johns Hopkins University in fall of 2019, I was quite excited because I am rather fond of the Moon. I think that enthusiasm started when I saw the movie *Apollo 13* as a child. That "successful failure" triggered an interest that later led me to completing a bachelor's degree in aerospace engineering and then to graduate school where I studied the early geophysical evolution of the Moon. By teaching the *Our Moon: From Imagination to Exploration* course, I wanted to not only convey my fascination with the Moon to students, but also to invite them to discover an aspect of the Moon that was interesting to them. In this article I document the philosophy and design behind the course, so that instructors who are interested can improve and teach the *Our Moon* course to their students.

Course Planning

As I was planning the course in summer 2019, at the time, it was also fittingly the 50th anniversary of the Apollo 11 mission. Since I was introduced to the Moon by the retelling of Apollo stories, it was a good opportunity for me to reflect not only on the Apollo program but also to think generally about the Moon. I thought about questions like: What should a course about the Moon cover? Who was the course for? Do students even care about the Moon? The name of the course, *Our Moon: From Imagination to Exploration*, hints at answers to those questions.

Recent work by Flaherty et al. (2017) and Kulkarni and Vinuales (2020) presented preliminary evidence that non-traditional course titles can positively affect students' interests in taking a course. I wanted the course title to indicate both the topics that would be covered and the intended audience for the course. The "our" in

Our Moon: A Multidisciplinary Course *continued*

the course title pointed to a sense of common heritage since the Moon has meaning to numerous cultures from around the world (e.g., Loske & Massey, 2018). I wanted the course to be inviting for a diverse group of undergraduate students. Additionally, "from imagination to exploration" in the title indicated that the course was multidisciplinary (the course sequence with topics that were covered are listed in **Table 1**). I believed that a multidisciplinary approach would help accomplish the learning objective of the course, which was that each student would find and learn about at least one aspect about the Moon that was interesting to them.

Course Implementation

The *Our Moon* course was supported by the Zanvyl Krieger School Science Teaching Postdoctoral Fellow Program at Johns Hopkins University**.** The program encourages postdoctoral researchers to propose and teach a course for undergraduate students. Since the *Our Moon* course was new, it was not part of a degree program, but it had the designation of a Krieger School of Arts and Sciences course. As the course was open to all students, there were no prerequisites. The course was offered in the Fall 2019 semester for 3 credits and consisted of two sections. Each section of the course met twice a week for 75 minutes.

I wanted the course to be open to all students and advertised the course widely by sending emails to various department offices and by posting flyers around the campus. One section of the course had 5 students, while the other had 14 students. Students who enrolled in the course ranged from 1st to 4th-year undergraduates, along with one graduate student (who audited the course). Students' academic majors were diverse and broadly represented academic disciplines including the humanities (e.g., English and history), social sciences (e.g., economics, international studies, and public health studies), natural sciences (e.g., cognitive science, environmental science, and physics), applied sciences (e.g., chemical & biomolecular engineering and mechanical engineering), and mathematics.

In addition to welcoming students of different academic backgrounds to the course, I also wanted to make the course accessible as much as possible. To keep the course costs low, I did not assign a course textbook.

Table 1

Course sequence

Topics	Disciplines	Details
Mythology & Religion	Mythology & Religion	Myths pertaining to the Moon from different cultures. Lunar calendar in relation to religious holidays. Religious observations by Apollo astronauts.
"Earthrise"	History & Literature	The Apollo 8 "Earthrise" picture in relation to Lucian of Samosata's *A True Story* and *Icaromenippus*, along with historical events of 1968 (e.g., the Vietnam War and the Civil Rights movement).
Lunar Data	Aerospace Engineering & Planetary Science	Guest lecture by Michael Pryzby. Lunar data exploration with Arizona State University's QuickMap (http://quickmap.lroc.asu.edu/).
Evolution of the Moon	Planetary Science	Apollo samples, theories of Moon formation, and the Lunar Magma Ocean.
Rocket Science	Aerospace Engineering	History and types of rockets, V-2 rockets in World War II, development of the Saturn rockets, and rocket design.
Cold War/ Space Race	History, Politics & Aerospace Engineering	Historical events from the end of World War II through the end of the Space Race with a particular focus on individuals and significant achievements in space flight.
Who Owns the Moon?	Politics	Five United Nations space treaties, connections to international waters and the Law of the Sea (1994), along with the Antarctic Treaty System.
The Moon in Cinema	Movies	Clips from nonfiction and fiction films showing how the Moon is depicted over time.
The Moon in Literature	Literature & Planetary Science	*De la Terre à la Lune (From the Earth to the Moon)* by Jules Verne with connections to lunar science and the Apollo program.
Future Exploration	Planetary Science & Aerospace Engineering	Discovery and presence of water on the Moon with how it may be extracted during future human exploration of the Moon.

Our Moon: A Multidisciplinary Course *continued*

Additionally, I made the primary course material (i.e., lectures) freely available on the course website (https://ourmoon.space/lectures) as PowerPoint slides (with notes), narrated YouTube videos, and audio recordings. By making the lectures available in multiple formats, I hoped to make them accessible for those who may have certain disabilities and to allow students to review course material in a format that they preferred. In addition to the course lectures, the course website also pointed students to additional online resources, so that they could continue their exploration of topics that they found particularly interesting. Furthermore, the continued availability of the course material on the course website means that even those who did not take the first iteration of the course can still use the website to asynchronously learn about the Moon on their own.

Interest Framework

The fact that interest is vital to learning has been discussed for decades (e.g., Hidi, 1990; Ainley et al., 2002; Harackiewicz & Hulleman, 2010; van der Hoeven Kraft, 2017). Nevertheless, many of us are still very familiar with 'eat your broccoli because it is good for you' courses where we are told by an instructor to care about something since the topic is "interesting." My own interest could have naturally led me to teaching the course in such a pontificating manner. Rather, knowing that interest is subjective, I wanted to invite students to find aspects about the Moon that were interesting to them. In this work, I adopted the definition of *interest* from Renninger and Su (2019) as both "the psychological state of learners during their engagement with particular content (e.g., communication, mathematics, basketball) and…their motivation to continue to reengage that content over time." For the purpose of pedagogy, it is important to note that interest can be developed (e.g., Hidi & Renninger, 2006; Renninger & Su, 2019) and that instructors can have a significant influence on helping students develop interest (Rotgans & Schmidt, 2011).

In regard to multidisciplinary courses, there is evidence that they can aid interest development among students. For example, Near and Martin (2007) designed an undergraduate course about psychoactive drugs from a multidisciplinary perspective (i.e., chemistry, ethics, genetics, law, pharmacology, psychology, and sociology). Their course evaluations showed that students reported an increased interest in the subject. More recently, Griswold (2017) taught a multidisciplinary undergraduate course about climate change. Half of the students who took that course reported that they either had a new interest in science or an ongoing interest. While we need additional research, preliminary evidence suggests that multidisciplinary courses can help with interest development.

For the *Our Moon* course, I used the Four-Phase Model of Interest Development as the theoretical framework (Hidi & Renninger, 2006). In their work, Hidi and Renninger divided interest into four phases: *Triggered Situational Interest*, *Maintained Situational Interest*, *Emerging Individual Interest*, and *Well-Developed Individual Interest*. They argue that interest is 'trigged' by a specific situation (e.g., a classroom activity) and can develop over time to a persistent individual interest (e.g., a hobby).

The aim of the course was to help create situational interest (both triggered and maintained) with the hope that at least some students would further develop individual interest after the course. I used multidisciplinary lectures to trigger situational interest (see Course Lectures) and I used assessments to help students maintain situational interest (see Course Assessments). I believe together these components of the course helped trigger and maintain situational interest among the students, but future research is necessary to be definitive.

Course Lectures

As mentioned earlier, course lectures were designed to trigger situational interest (e.g., Palmer, 2009) through a multidisciplinary discussion of topics pertaining to the Moon (see **Table 1**). While all lectures of the course are freely available on the course website (https://ourmoon.space/lectures), I will discuss a few topics in detail below so that the reader can appreciate the value of a multidisciplinary approach when discussing the Moon.

The Moon, Race, and Gender

Throughout the course I discussed people who are part of the story of the Moon. While some people, particularly from the Apollo era (e.g., Neil Armstrong and Buzz

Our Moon: A Multidisciplinary Course *continued*

Aldrin), are still household names, contributions of "Hidden Figures" have only more recently been widely recognized (e.g., Shetterly, 2016; Birney et al., 2018; Aegerter et al., 2019). While I of course knew of John Glenn (first American to orbit the Earth) from a young age, it was only fairly recently that I learned about "Hidden Figures" like Katherine Johnson. Course discussions allowed students to consider both race and gender for a more complete picture of people who were involved in the story of the Moon.

Conversions about race and gender, and of course substantive societal changes, are essential and the history of the space program provides us with opportunities for discussions about these topics. For example, we discussed how just prior to his Mercury-Atlas 6 (Friendship 7) mission in 1962, Glenn reportedly asked "the girl" (Johnson) to check the numbers. Johnson was 43 years old at the time; Glenn was 40. Why did Glenn refer to Johnson as "the girl"? Moreover, when we discussed the subject of female astronauts, we considered Glenn's testimony during the special subcommittee meeting of the House Committee on Science and Astronautics in the United States Congress in July 1962. Glenn testified, "I think this gets back to the way our social order is organized really. It is just a fact. The men go off and fight the wars and fly the airplanes and come back and help design and build and test them. The fact that women are not in this field is a fact of our social order. It may be undesirable" (Weitekamp, 2005, p. 151). That "social order" meant that Jerrie Cobb (first female American aviator to pass all of the Mercury 7 physiological tests) never became an astronaut. When the first woman in space, Valentina Tereshkova, met Cobb she stated, "We always figured you would be first. What happened?" (Stone, 2009, p. 84). Perhaps what happened was that "social order" resulted in all 12 of the first humans to walk on the Moon being White men.

While people accomplished the astonishing task of building rockets that took humans a distance of 385,000 km (240,000 miles) to the Moon, that journey also involved discrimination based on race and gender. By making these connections, I hoped that students would be able to actively participate in future conversations about lunar exploration, so that we can encourage diverse groups of people to participate while trying to avoid repeating past failures.

The Moon and Politics

As part of the discussion about the begins of the Apollo program, I wanted students to understand the large part politics played in establishing the program. For one, while the story of the Apollo program is often told starting from when the Soviet Union launched the first satellite (Sputnik 1) on October 4th, 1957, it in fact should start much earlier with the end of World War II. Additionally, while some may think that president John F. Kennedy was a consistent advocate of the Apollo program, the reality is that his support waxed and waned. We discussed both of these aspects as part of the section on the Cold War.

Nazi scientists and engineers played a large role in the success of the Apollo program. Towards the end of World War II, the United States brought over a thousand Nazi scientists and engineers as part of Operation Paperclip. One of those engineers was of course Wernher Von Braun. He designed and developed V-2 missiles that likely killed tens of thousands of people (counting both deaths of concentration camp workers and those killed by missile attacks) (National Air and Space Museum, 2000). Von Braun would become the chief architect of the Saturn V rocket, which took Apollo astronauts to the Moon. His current biography on the NASA Marshall Space Flight Center website notes that he "was a member of the Nazi Party and an SS officer" and "his responsibility for the crimes connected to rocket production is controversial" (Marshall Space Flight Center, 2017). The connection of Nazi scientists and engineers to the Apollo program is a historical fact that is important for students to learn.

Another historical aspect that needs closer examination is Kennedy's plans for the Apollo program. Twenty days after Alan Shepard became the second man and the first American in space, Kennedy gave his famous speech to Congress on May 25th, 1961 where he said, "I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the earth" (Kennedy, 1961). Retellings of the story of the Apollo program often go linearly from that speech through the various Apollo missions to the successful Apollo 11 landing. However, in actuality the history of the Apollo program is of course more involved. In fact, 10 days after his speech to Congress, in a summit in Vienna, Austria, Kennedy proposed a joint mission to the Moon to Soviet Union

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premier Nikita Khrushchev. Khrushchev declined the offer (National Aeronautics and Space Administration, 2002). The following year, on September 12th, 1962, Kennedy gave his "we choose to go to the Moon" speech at Rice University (National Aeronautics and Space Administration, 1962). However, nearly exactly a year later on September 18th, 1963, during a meeting with James Webb (then NASA Administrator), Kennedy stated, "I don't think the space program has much political positives…I mean if the Russians do some tremendous feat, then it would stimulate interest again, but right now space has lost a lot of its glamour" (Kennedy, 1963a). Two days later in his speech at the United Nations, Kennedy stated, "Why, therefore, should man's first flight to the Moon be a matter of national competition?" (Kennedy, 1963b). Were students to only know about Kennedy's "before this decade is out" and "we choose to go to the Moon" speeches, they would interpret his advocacy of the Apollo program very differently than if they learned about all these instances of Kennedy discussing the Apollo program.

It is important to help students learn about the complete (or a more complete) history of the Apollo program. They need to ponder questions like: What does a journey planned and implemented by someone like Von Braun say about our first trip to the Moon? What does it say about us? How do we interpret a president who gave a directive to go to the Moon and then changed his mind several times? Examples of Von Braun and Kennedy illustrate the complexity of how the Moon and politics are intertwined.

The Moon and Sense of Place

According to place-based education, making connections to *place* will help students develop interest and aid their learning (e.g., Leonard et al., 2016; Liebtag, 2018). A *place* can be defined as a "locality that people have imbued with meanings and personal attachments through actual or vicarious experiences" (Semken et al., 2017). Given our history, culture, and exploration, the Moon itself is a *place* to many people (see Messeri, 2016). Alternatively, another *place* for students is Baltimore, Maryland since the course took place in the city and many students were either from the area or lived there. As such, to connect course material to students' sense of place, I made several connections to Baltimore.

The first connection to Baltimore was during a discussion about the history of rockets. Congreve rockets were fired at Baltimore Harbor by British forces during the War of 1812 (National Park Service, 2002). It was that "rockets' red glare" that Francis Scott Key saw and served as inspiration for his poem *Defence of Fort M'Henry* (Key, 1814), which of course would later go onto become *the Star-Spangled Banner*, the American national anthem. The second connection to Baltimore was when students read the book *De la Terre à la Lune* (*From the Earth to the Moon*) by Jules Verne (Verne, 1865). The book is an important literary work regarding the Moon. Even Neil Armstrong acknowledged the book on the way back from the Moon during the Apollo 11 mission (National Aeronautics and Space Administration, 1969). The setting for Verne's story is Baltimore, Maryland and the premise is that the Baltimore Gun Club created weapons for the American Civil War (1861–1865), but at the end of the war they needed "another outlet for [their] restless energy." As such, the president of the club, Impey Barbicane, propose to lead them "in the conquest of the Moon." Much like how Barbicane's vessel traveled to the Moon from Florida, about 100 years after Verne's story, Apollo astronauts would also leave the launch site at Cape Canaveral, Florida to travel to the Moon.

Connecting the Moon to students' sense of place is beneficial to their learning. It may seem that instructors in places like Texas (location of the Apollo Mission Control Center) and Florida (location of the Apollo launch site) will find it much easier to connect the Moon to their geography. However, given that the Moon has global meaning to people, I believe it is possible for most instructors to connect the Moon to students' sense of place.

Course Assessments

As discussed previously, I devised course assessments to help students maintain situational interest. I used both formative and summative assessments during the course. Formative assessments primarily consisted of various activities that I asked students to work on as part of the lectures. Summative assessments consisted of three small projects and a final project. I discuss each assessment type in more detail below.

Our Moon: A Multidisciplinary Course *continued*

Formative Assessments

I assigned formative assessments to make the lectures more active (e.g., Dixson & Worrell, 2016). Formative assessments were given during many of the lectures, but not every class period. When formative assessments were given, student had about 10 minutes to work on them. A few examples of formative assessments from the course include writing prompts (e.g., *What does the Moon mean to you?* & *Reflect on the Apollo 8 "Earthrise" picture*) and periods of time when students worked on their own (e.g., exploring a myth about the Moon that they found particularly interesting, putting phases of the Moon in the correct sequence, and trying to explain why the Moon goes through phases). After each formative assessment, I asked for volunteers to share with the class. These assessments allowed me to better structure subsequent lectures and to help students develop their own interests.

Summative Assessments

To help students maintain situational interest, I asked students to work on three small projects individually and I gave them the option of working on the final project in groups. At the beginning of the course, I instructed students that I did not want them to create "dumpster projects" (i.e., projects that are discarded after being graded) (Gibson, 2019). Since the projects were for them, they were asked to create something that they did not just "turn in," but were proud to keep after the course. Giving students more agency with choice is an educational practice that has been around for some time (e.g., Flowerday & Schraw, 2000). For example, in an ecology course where students designed their own experiments their "ownership of the projects carried over into high enthusiasm for conducting the research and writing about it" (Rettig & Smith, 2009). A meta-analysis by Patall et al. (2008) confirmed that choice has a positive effect on motivation, but they note caveats about having too many choices. Therefore, to provide some structure for students, for the small projects I asked that they turned in a short description of their planned project a few weeks prior to the project due date. That was done primarily to encourage students to think about their projects early and not wait till they were due to begin working on them. I read the project descriptions to make sure students proposed a project that fit the requirements and provided them with feedback as needed. In addition to the project itself, I asked students to do a brief presentation about their work to the class. I also asked them to work for at least 10 hours outside of class and to document their time with the expectation that they turned in their timesheet with their project. The final project was similar to the small projects, but I expected them to spend at least 20 hours outside of class on the final project. Students had the option of either further developing one of their small projects or coming up with an entirely new project. All projects were graded for completeness since, given the diversity of the types of projects that students created, it was not feasible nor beneficial for interest development for me to grade based on a predefined rubric. Each of the three small projects was worth 20 points and the final project was worth 40 points (the course grade was based on a total of 100 points). For the small projects, students received 2 points for the short description of their project, 15 points for the project itself, and 3 points for the brief presentation. Point allocations for the final project were twice as those of the small projects.

Students worked on a diverse range of projects that included musical recordings, computer codes, movie reviews, paintings, and short stories (see **Figure 1** for three examples of student projects). As noted in Course Planning, the learning objective of the course was for each student to find at least one aspect about the Moon that was interesting to them. Through their projects students demonstrated that they had maintained situational interest. For example, the *Apollo Program-Inspired Outfits* by Rachel Miller shown in **Figure 1** exhibits that Rachel took ideas presented in the course and applied it to their own interests. While the various Apollo missions were discussed during the course, I did not directly address how the Apollo program did, and in Rachel's case can still influence design (viz., fashion design). I was impressed with this project since it showed artistic interpretations of specific aspects of the Apollo program (i.e., launch of the Saturn V rocket, the Mare Tranquillitatis landscape, and Ken Mattingly being removed from the Apollo 13 mission). I encourage readers to find a more complete list of student projects on the course website at https://ourmoon.space/projects.

Our Moon: A Multidisciplinary Course *continued*

Figure 1

Select student projects

Baking Mooncakes by Serena Tang**.** This project relates mythology and religion to the Moon. Mooncakes are prepared and eaten during the Mid-Autumn Festival, the timing for which is partly based on a full Moon.

Painting of the Moon by Andrea Schmidt. This painting was inspired by *Four Times of the Day: Night* (1757) by Claude Joseph Vernet.

Apollo Program-Inspired Outfits by Rachel Miller**.** From left to right: outfits inspired by the Saturn V rocket (bottom depicts the rocket exhaust), Apollo 1 mission (with astronaut last names Grissom, White, and Chaffee), Apollo 11 mission (depicting the lunar landscape), and Apollo 13 mission (sleeves with red dots for Ken Mattingly being removed from the mission due to being exposed to measles).

Discussion

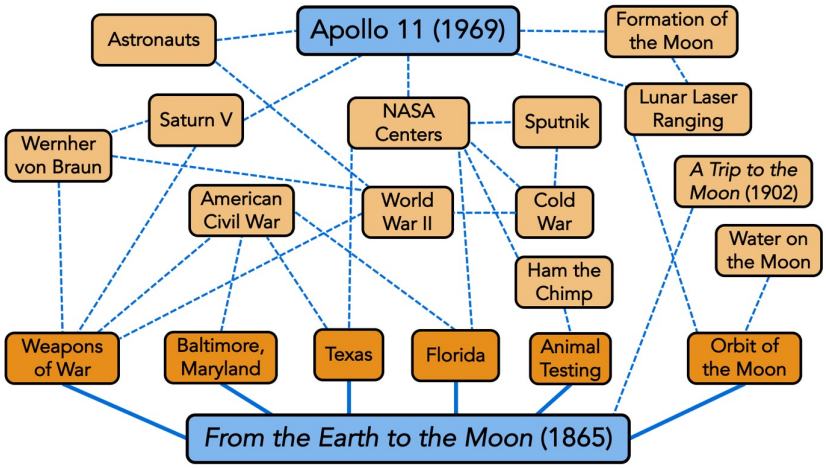
Overall, I think the first iteration of the *Our Moon* course was a success. This course joins other multidisciplinary and interdisciplinary courses (e.g., *Water* [Tabbutt, 2000], *Law and Literature* [Schotland, 2009], *Physics and the Arts* [Dark & Hylton, 2018], and *Science and Culture of Blood* [Wolfson & Armstrong, 2020]) in presenting a topic from different perspectives while helping students to develop interest in a topic. While it is a limitation that I did not assess students' interest development through a research study, I have anecdotal evidence (e.g., Lightcap, 2009) from students' comments and reactions during the course that the course successfully promoted interest development. In a future iteration of the course, students' interest development can be better studied using survey and interview data.

While the first iteration of the course was taught from a multidisciplinary perspective, in a future iteration of the course I would like to develop it further as an interdisciplinary course. Newell and Green (1982) defined interdisciplinary "as inquiries which critically draw upon two or more disciplines and which lead to an integration of disciplinary insights." **Figure 2** shows a concept map as an example of further developing ideas of this course to better integrate between traditionally distinct disciplines (e.g., literature and aerospace engineering). The figure shows some of the topics that can be connected between Jules Verne's book *De la Terre à la Lune* (*From the Earth to the Moon*) and the Apollo 11 mission. For example, using animals to test spacecraft is mentioned in Verne's story and is a practice that was in fact essential to getting crewed spacecraft ready during the early days of the space program (e.g., Laika the dog and Ham the chimpanzee). I believe that a future interdisciplinary version of the *Our Moon* course would be even more beneficial to students.

Our Moon: A Multidisciplinary Course *continued*

Figure 2:

Example concept map of topics based on Jules Verne's book De la Terre à la Lune (From the Earth to the Moon)



Plutarch is credited with saying, "the correct analogy for the mind is not a vessel that needs filling, but wood that needs igniting" and that philosophy is central to the *Our Moon* course where the goal was to develop students' interest of the Moon by presenting course material from a multidisciplinary perspective. Additionally, giving students agency to create projects that they found personally meaningful further supported interest development. The Moon is our common heritage. It is in fact *our* Moon. My hope is that the first iteration of the *Our Moon* course (and hopefully subsequent versions of it) will generate individual interest in a diverse group of students, so that they can be active participants in the future exploration of the Moon. Ex luna, scientia.

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TEACHING REPORT

Encouraging Critical Engagement with Course Readings Through Focused Reading Responses

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Abstract

In this article I demonstrate how Focused Reading Responses motivate students to 1) critically engage with reading assignments, and 2) write more substantive reading responses. A focused reading response asks students to reflect upon several aspects of a reading assignment by responding, in writing, to a number of prompts that serve to engage students in critical thinking while also limiting the overall length of the response. Each prompt can be adjusted to accommodate the instructor's subject matter and teaching modality. Additionally, focused reading response assignments are adaptable to a variety of teaching modalities, including face-to-face and remote learning environments. Focused reading responses communicate specific, measurable, attainable, relevant, and length-bound goals to students, providing students with the resources they need to produce meaningful and valuable work.

Keywords

Reading Assignments; Argumentative Writing; Reflective Writing; Bloom's Taxonomy

Reading response assignments are often used to mitigate a persistent problem in higher education – *students just won't do the reading!* (Warner, 2016). Beyond motivating students to take more than a mere cursory glance over a reading assignment, educators primarily use reading response assignments to try to get students to *engage* with the reading assignment, often with limited success (Flierl & Hamer, 2019, p. 88; Sackris, 2020, p. 71). While some of these limitations may be attributed to students who lack a genuine understanding about how to engage meaningfully with a topic, many reading response assignments limit student creativity or limit a student's imagined audience, and professors themselves find them overly burdensome to grade (Flaherty, 2014; Weir, 2009).

Over many semesters of using reading response assignments myself, I have found them to be ineffective, rife with references to SparkNotes, and uninspiring to grade. So, for the past few semesters, I have refined my reading response assignments to reflect more of what I *really* want them to accomplish: honing creative and reflective thinking, as well as argumentative writing skills, in my students. By re-thinking my pedagogical objective for using reading responses, I have revised the assignment into a *focused* reading response assignment that aims to capture what Flierl and Hamer (2019) refer to as a "Transformative" learning experience: a shifting of the way in which an individual thinks, feels, and acts. A transformative shift requires students to actively think about and re-evaluate their own views, rather than just memorize or summarize content that is being presented to them (Flierl & Hamer, 2019, p. 88). To this end, my revised assignment also limits the overall length of the response by requiring students to respond to a set number of specific prompts that discourage excessive summarizing and motivate more reflective writing.

In this article, I demonstrate how *focused reading responses* motivate students to 1) critically engage with reading assignments toward more transformative thinking, and 2) write more substantive and reflective reading responses. In the first section, I outline the purpose and scope of a focused reading response assignment. In section two, I discuss the principles that ground the pedagogical objectives of a focused reading

Encouraging Critical Engagement *continued*

response assignment, highlighting the importance of utilizing Bloom's Taxonomy and the 4R model of reflection to structure learning objectives for students. In the third section, I detail the core components of a focused reading response assignment. In section four, I provide examples of student work to illustrate how effective focused reading responses can be for student comprehension and discuss how the assignment has worked in practice, drawing on student evaluations of the value of the assignment for achieving learning outcomes.

1. What Is A Focused Reading Response?

A focused reading response asks students to reflect upon several aspects of a reading assignment by responding, in writing, to a number of prompts. I use a set number of specific prompts for several reasons. First, providing multiple required prompts, each with different expectations, serves to limit the amount of mere summarizing/reporting in the response.[1]

Second, specific prompts provide guidelines for how students should approach the reading. For my Introduction to Philosophy courses, I use the same set of five prompts, each focusing on a different thought exercise (I will discuss these prompts in more detail in section three):

> **Prompt 1**: Identification of what the student believes to be the most important or controversial part of the reading assignment.
>
> **Prompt 2**: Explanation of the student's reasoning for prompt number one.
>
> **Prompt 3**: Comparison of the current reading to another reading we have done in the course.
>
> **Prompt 4**: Evaluation of the reading, and justification of one's evaluation.
>
> **Prompt 5**: Formulation of a question to think about the reading further.

Each of these prompts includes guidelines for composing a response (for instance, prompt two, *explanation,* includes the following guidance: "*Why have you chosen X as the main thesis offered by the author? Why is this particular assumption controversial?* Think about this section as providing reasons for *your* conclusion that *X* is the main thesis."). Providing guiding questions is one way to demonstrate what a successful reflection looks like, especially for students who may otherwise struggle to do more than merely summarize a reading (Flierl & Hamer, 2019, p. 98). And because the prompts remain consistent for each reading, students are able to approach the reading more confidently. As such, this kind of *scaffolding* helps change students' attitudes about course readings from intimidation to approachability.[2]

Third, certain prompts that I use, such as the *comparison* prompt and the *evaluation* prompt, are designed to activate students' *prior knowledge* about a particular topic (including attitudes and dispositions that are connected to said topic). Neiman and Neiman (2015, p. 159) argue that using prompts to activate students' prior knowledge facilitates learning new material. By encouraging students to compare the current reading with an earlier reading, students can draw upon their prior knowledge and connect it to the current topic, deepening engagement with the major theme(s) of the reading assignment (as well as the course). By asking students to evaluate the reading assignment, students can integrate prior assumptions and/or experiences with the topic at hand, again deepening engagement.

Fourth, the specific prompts that I use encourage students to practice argumentative and reflective writing in a low-stakes environment.[3] Recent research by McDaniel et al. (2007) suggests that greater learning gains may be achieved by using more frequent, low-stakes assignments, especially if students are able to experiment with their responses more creatively because they do not fear failing as much (Flierl & Hamer, 2019, 96).

With respect to flexibility, each prompt in a focused

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[1] *Flierl and Hamer (2019, p. 98) note that excessive summarizing limits the learning potential for reflective writing exercises.*

[2] *Graves and Graves (2003) define scaffolding as a temporary structure that enables someone to successfully complete a task that they would be unable to without said structure. They argue that, "scaffolding can aid students by helping them to better complete a task, to complete a task with less stress or in less time, or to learn more fully than they would have otherwise." (Graves & Graves, 2003, p. 30)*

[3] *I am then able to ask students to apply these rehearsed skills to more substantial assignments later in the semester.*

Encouraging Critical Engagement *continued*

reading response can be adjusted to accommodate an instructor's subject matter and teaching modality. For instance, instead of requiring students to identify an author's main claim, a prompt can require students to identify the main catalyst for a particular event or story line, or it may require them to identify a specific practice or a series of steps in a process. The second prompt may still require students to provide the reasoning for their selection. Likewise, a prompt can require students to draw a comparison between character arcs in separate reading assignments, or between a narrative account and their own personal experience(s), and so on.

Additionally, focused reading response assignments are adaptable to a variety of teaching modalities. I first began using the assignment when teaching face-to-face courses and found it effective both for motivating students to complete reading assignments ahead of class meetings, as well as for preparing them to comment on the substance of readings assignment with more nuance during class discussions.[4] When courses pivoted online due to the Covid-19 Pandemic in Spring and Fall 2020, I found the assignment equally effective for motivating reading completion, reading comprehension, and reflection in remote learning environments. For instance, when responses are posted to discussion boards, students are held accountable by one another to post earnestly and on time, especially when the assignment is paired with a peer-reply component. With such assignment pairings, students comment upon one another's posts, which is especially useful for facilitating online discussions.

Further, I am able to glean how well students are comprehending course readings because of the streamlined and structured nature of their responses: in the few sentences allotted for each prompt, students either correctly or incorrectly identify the main thesis, they either persuasively or unpersuasively provide reasons for their main thesis selection, their evaluations provide either relevant or irrelevant criteria, and so on. In short, the assignment's specific prompts and limited length requirements facilitate more efficient and effective grading, which is especially helpful for educators. That being said, "streamlined and structured" does not mean *inflexible* or *uncreative;* focused reading responses allow students to be creative with their writing – an important pedagogical goal – while eliminating the "fluff" that so often pervades reading response assignments.

2. Pedagogical Objectives

When designing prompts for a focused reading response assignment, I determine what I want to see my students get out of my course. Do I want them to memorize and recite philosophical ideas? Certainly not. Do I want them to evaluate philosophical arguments and apply them beyond the bindings of our course text? Yes! But how can I prepare them to evaluate an argument, or apply it to some part of their life, when they have difficulty discerning the main conclusion from any one of the premises?

To identify appropriate learning objectives for focused reading responses, I utilize *Bloom's Taxonomy*, a framework for classifying the different skills and objectives that educators set as goals for their students,[5] as well as the *4R Model of Reflection*, which holds that students may achieve four levels of reflection: reporting/responding, relating, reasoning, and reconstructing (Flierl & Hamer, 2019).[6]

Bloom's taxonomy was initially proposed in 1956 by Benjamin Bloom, an educational psychologist, as a means of structuring learning objectives for different types of assignments (see Figure 1).[7]

The base category, *remembering,* involves recalling and/or identifying methods and processes, specific and general

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[4] *Sackris (2020) notes that this is probably the biggest benefit to using frequent, targeted reading response assignments: they allow for meaningful class discussion of the reading in class sessions because they enable the instructor to move beyond the task of simply explaining the content of the reading to students who are underprepared (p. 76-77).*

[5] *See Hall (2015).*

[6] *The 4R model of reflection is based upon the 5R Framework and Assessment Scale for reflective writing and thinking, which was developed to assess the levels of reflection found in the journal entries of student teachers (Bain et al. 2002, p. 13). The 5R Framework keeps reporting and responding as distinct levels, whereas the 4R model collapses both categories into one level (Level 1).*

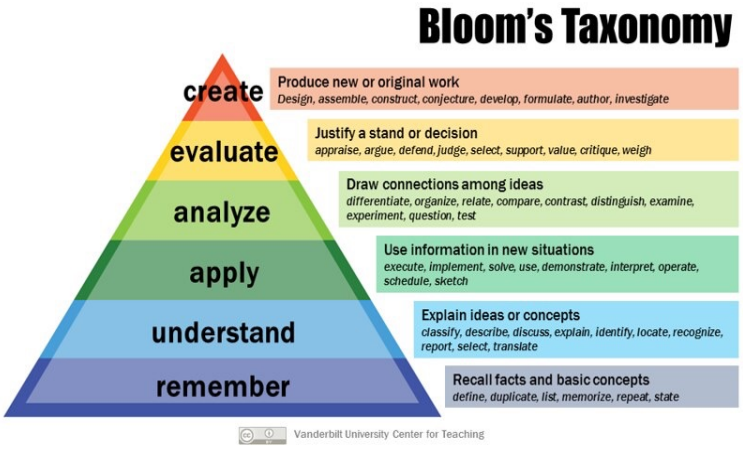
[7] *The taxonomy has since been updated to reflect our increasingly digital pedagogical landscape. A "Bloom's Digital Taxonomy" infographic, created by Ron Carranza, is featured on the Arizona State University Teach Online website.*

Encouraging Critical Engagement *continued*

concepts, and patterns and structures, and is a necessary precondition for putting the skills and abilities identified in the other categories, such as *applying, analyzing,* and *creating,* to effective use (Armstrong, n.d.). For instance, in asking students to *evaluate* something (a reading, an artifact, a work of art), we are asking them to *justify* or *defend* their stance by providing supportive evidence (*facts and basic concepts*) or well-reasoned critique (*analysis*). Since one of the primary goals for my students is to hone their argumentative writing skills, I structure my focused reading responses on developing these abilities through regular practice. As such, I focus primarily on *analyzing* (prompt 3) and *evaluating* (prompt 4) arguments, and scaffold focused reading response prompts on achieving these learning objectives.[8] To do so, I incorporate the base category *understanding* (prompt 1) for students to use as a resource.

Figure 1:

Bloom's Taxonomy infographic, created by Patricia Armstrong, as found on the Vanderbilt University Center for Teaching website.



The other goal that I have for my students is to hone their creative and reflective thinking toward a transformative learning experience. Transformative learning requires students to actively reflect upon their experiences or observation. The process of reflection involves taking what one has learned – in this case, philosophical concepts and views – and reconstructing it to apply it to one's experiences or observations (Flierl & Hamer, 2019, p. 88).[9] The 4R model of reflection helpfully distinguishes cognitive levels of learning, including the level of learning on which pedagogically beneficial reflection occurs (p. 89):

The 4R Model of Reflection

First Level - Reporting/Responding: Providing a descriptive or summarizing account of what was encountered / Providing an emotional or personal response to what was encountered

Second Level – Relating: Making connections between one's experiences and/or prior knowledge with what was encountered

Third Level – Reasoning: Explaining the issue at hand, highlighting relevant factors, variables, or experiences for what was encountered; thinking through logical outcomes

Fourth Level – Reconstructing: Drawing conclusions about what was encountered; reframing the issue at hand and developing a future action plan drawn from one's reframing

A transformative learning experience is unlikely to occur for students reflecting on a reporting/responding level, or a relating level. It is only when students begin to *reason* about what they have encountered – in this case, a reading assignment – that a fundamental shift in thinking can occur. Prompt 2, which asks students to explain their reasoning, is meant to achieve this transformation in thought. Simply put, it is not enough to report about some portion of the reading; one must also provide their reasoning for choosing this portion of the reading to report on. Requiring students to provide this reasoning is meant to motivate a reflective thought exercise where students must ask themselves, "Why *did* I find this so important?"

[8] *I have found that students who practice these philosophical skills in a low-stakes environment throughout the semester tend to apply philosophical perspectives more creatively to current events (in papers or in group projects), and tend to express philosophical ideas more clearly in class discussions.*

[9] *Flierl and Hamer, 2019; Bain et al., 2002.*

Encouraging Critical Engagement *continued*

Likewise, when a student can reconstruct or reframe an issue – especially in the context of evaluating the issue, as prompt 4 asks them to do – they must think about whether they would act on the reasons provided by the author (or not act). Prompt five, which asks students to formulate a question, is intended as a continuation of this thinking exercise: *should we think about this issue as the author does? What implications might this way of thinking produce?* Requiring students to engage in these specific reflective exercises through focused reading responses can yield such transformative learning experiences.

3. Assignment: Focused Reading Response

A focused reading response assignment in my Introduction to Philosophy courses is presented as five parts, each part specifying an objective and a target length:

- **IDENTIFY** what you believe to be the most important part of the reading assignment, *in your own words*, in 2–3 sentences. This can be a summary of what you believe to be the **main thesis** provided by the author (this can also be thought of as the *main conclusion* the author reaches), or a **controversial assumption** grounding the author's position (for instance, some belief the author mentions that guides much of their thinking).

- **EXPLAIN** the reasoning behind your selection in 3–4 sentences: *Why have you chosen X as the main thesis offered by the author? Why is this particular assumption controversial?* Think about this section as providing **reasons** for *your* conclusion that *X* is the main thesis. You should use examples from the article to help make your case.

- **COMPARE** this reading to another reading we have covered in the course. In 2–3 sentences, **examine** the **similarity** between this reading and another (perhaps both authors reach the same conclusion, or share similar reasoning), or **examine** the **difference** between this reading and another (you can point to differences in the main theses, or differences in reasoning, and so on).

- **EVALUATE** the reading in 2–3 sentences. *Do you find the author's argument plausible/implausible? Persuasive/unpersuasive? Why?* Be sure to **justify** your evaluation by providing reasons that support your evaluation.

- **FORMULATE** a **question** for your classmates. This can be a question to kick off discussion (for instance, you can ask about how the author's argument might apply to something in your peers' lives), or a question about something you found unclear in the reading (for instance, you can ask a classmate to explain a concept, a term, or to clarify an example that you may have struggled with). *Be specific! Vague questions (such as, "did you like this reading?") can be difficult to answer meaningfully.*

By creating clear guidelines that aim to demonstrate what a successful reflection looks like, students are given clear and attainable goals for their assignment. These goals are clarified further through the use of an accompanying rubric (Figure 2 on next page) that I share in advance of the assignment's due date. The rubric is also helpful for streamlining the grading process, as each box corresponds to a number grade. Once each part is assessed, the average of the five graded parts forms the final grade for the assignment. For educators like myself who can have up to 120 students per semester with no grading assistance, the clear guidelines in the prompts and the accompanying rubric offer actionable feedback to students while making grading a much less burdensome task.

I assign focused reading responses for every reading assignment over the course of the semester. However, I only require students to complete a portion of them (typically, 70% or so), essentially offering "freebie" days that students can choose to take whenever they are feeling swamped. While Sackris (2020) argues that assigning reading assignments for every class is essential for producing more engaging class discussions, I aim to balance this important goal with the ebb and flow of other demands that my students may be balancing at any given time. This consideration was certainly shaped by the Covid-19 pandemic, but I believe that it also lends some agency and ownership to my students (they may decide to prioritize the readings they believe will be the most interesting, and therefore may devote more time to the assignment because of it). There is never a class that goes by where I don't have at least a quarter of the class

Encouraging Critical Engagement *continued*

Figure 2:
The grading rubric that accompanies my focused reading response assignments.

Requirement	Incomplete / Does not Meet Expectations 0 – 1 (1=50)	Minimally Meets Expectations 2 (2=72)	Meets Expectations 3 (3=88)	Exceeds Expectations 4 (4=100)
Summary (of important part of reading)	Summary is missing or incomplete (0) / Summary does not reference anything specific from the reading assignment (1)	Summary vaguely references the reading assignment, but does not indicate that the student engaged with the reading assignment in a substantive way	Summary clearly references the reading and attentively summarizes the student's selection from the reading assignment	Summary clearly references the reading; summary completely and clearly outlines the student's selection while connecting the selection to the reading overall
Explanation of Summary (reason for summary selection)	Explanation of summary is incomplete or missing (0) / Explanation of summary does not logically connect to summary (1)	Explanation is not sufficiently motivated; examples used do not make the summary any clearer (may be irrelevant)	Explanation of summary is mostly clear and accurate; explanation indicates student's reasoning	Explanation of summary is relevant, accurate, and clearly indicates student's reasoning; explanation expands upon summary in insightful way
Analysis (comparison to other reading)	Analysis is incomplete or missing (0) / Analysis is too vague to discern any connection to other reading (1)	Connection to other reading is perfunctory or irrelevant	Connection to other reading is clear and well-motivated, but may not be comprehensive	Connection to other reading is clearly articulated, well-motivated, and comprehensive
Assessment (evaluation of reading)	Assessment is incomplete or missing (0) / Assessment does not include any relevant or clear reasons for student's evaluation (1)	Assessment is generic in character, does not indicate that student has engaged with implications of the author's argument(s)	Assessment is well-motivated and provides relevant reasons for student's evaluation	Assessment is well-motivated and insightful; student provides clear, comprehensive, and relevant reasons for their evaluation
Question (question for teammates)	Question is missing (0) or incomplete (1)	Question is too vague or general to motivate responses	Question is clear and specific to motivate discussion	Question is insightful and asks students to engage with reading in novel way

having turned in a Focused Reading Response ahead of time, providing plenty of material to build off of in class discussions, and a sizable portion of students in class to provide more insight for others each meeting.

Relatedly, while I do grade every focused reading response assignment, I am not grading heavily on the *accuracy* of the student's response. Rather, I am grading responses by how well students demonstrate reflective thinking in their response. As such, focused reading response assignments offer students many opportunities to practice identifying the main thesis of a philosophy article, as well as being given many opportunities to practice argumentative writing in various forms (through explanation, comparison, and evaluation). Specifically, by asking students to *identify* what they believe to be an important part of the reading and *explain* their reasoning, I am asking them to *write like a philosopher* – that is, to *defend their claim with reasons*. By asking students to *compare* readings, I am asking them to *think*

Encouraging Critical Engagement *continued*

critically about the nature of philosophical argumentation, especially how different arguments can be used to support the same claim or belief. By asking students to *evaluate* the reading, I am asking them to *think critically about their own beliefs* and how they relate to our reading assignments. By asking students to *formulate* a question for the class, I am asking them to think *creatively* about how to apply the main thesis beyond the text itself, as well as how to motivate their peers' engagement with the reading. These skills can be applied to other assignments during the semester, such as course papers.

4. In Practice

In practice, I have found that focused reading responses help keep students accountable for completing reading assignments ahead of class meetings. Since they must make reference to the text itself (both in identifying the main thesis and in using examples to help defend their selection), it is difficult to complete the assignment by simply skimming the reading or using vague language to summarize and evaluate the reading. In short, it is easy to identify whether or not a student has actually done the reading.

Additionally, the nature of the assignment prompts makes it difficult for students to plagiarize their responses or to effectively use online guides such as Course Hero or SparkNotes to formulate responses. Such guides typically offer broad overviews of reading assignments and so fail to reach the level of specificity needed to successfully answer each prompt.

From a participatory perspective, focuses reading responses help students prepare for class participation in a variety of modalities. Sackris (2020) notes that "Assignments associated with each class session's reading results in a high percentage of students carefully completing said reading, which results in more successful class discussions, and a deeper dive into the course material" (p. 75). I have found this as well. For instance, in a classroom setting, students already come prepared with a question to ask the class, making it easier to begin and sustain class discussions. Moreover, students are better prepared to answer questions posed by instructors since they have engaged with the reading in a more nuanced fashion.

For online or blended courses, focused reading responses facilitate useful discussion board content. I have found that students respond earnestly to their peers' questions and are regularly motivated by the connections their peers make to other reading assignments – in some cases, the comparisons alone spark an entire discussion thread! Most importantly, successful comparisons indicate not only that students comprehend the material, but that they have the ability to creatively engage with it by making new connections to other philosophical ideas.

For instance, a focused reading response posted to a discussion board in one of my Fall 2020 Introduction to Philosophy courses focused on Annette Baier's "Trust and Antitrust", drawing a connection to the work of David Hume by referencing his argument that impressions precede ideas:

> *Annette Baier's "Trust and Antitrust" explores the way in which we as humans trust, identifying the different types of trust yet at the same time understanding that trust is a major foundation in relationships and atmospheres. Baier describes that we frequently trust total strangers and with that "of course we are often disappointed, rebuffed, let down, or betrayed when we exhibit such trust in others, and we are often exploited when we show the wanted trustworthiness" (p 234).*
>
> *For example, Baier specifically mentions that we trust the mailman to deliver and not tamper with the mail and we trust those whom we ask directions for in foreign cities to direct rather than indirect us. Continued in the piece, Baier creates reason as to why we typically leave that in which we hold closest to our hearts in the hands of other people, trusting that they will not cause them harm. Baier narrates that "we need their help in creating and then in not merely guarding but looking after the things we most value so we have no choice but to allow some others to be in a position to harm them" (p 236). Consistently through this work, Baier focuses on our choice to trust, even those we just merely encountered, and the way it shapes human condition.*
>
> *I believe that philosopher David Hume could most closely relate to Baier. Hume was all about how our experiences shifted our lives and created impressions for the remaining of our lives. If Baier might further*

Encouraging Critical Engagement *continued*

> *explain Hume's philosophy using the idea that our experience with one individual, particularly the way the trust we put into them was handled and whether it be with care or not, can leave a lasting impression on us.*
>
> *I find it interesting how Baier importantly mentions that "when we turn to the great moral philosophers, in our tradition, what we find can scarcely be said to be even a sketch of a moral theory of trust" (p 232). With this I'm left with the question of, would Baier argue that everybody's moral theory of trust is different, and if so, would the fact that each person's unique set of morals, different from the next, affect this?*

In this response, the student has successfully responded to each prompt and has incorporated evidence (in the form of selected quotes or explanations) to support their claims. The learning objectives have been met: the student has made an earnest attempt to identify the main thesis and provide relevant evidence to support their selection; the comparison to Hume is both relevant and substantiated with the student's reasoning; and the question as formulated has the potential to motivate specific, relevant responses from peers. It is clear that the student has critically engaged with the reading assignment and has thought creatively about connecting the reading to others we had covered in the course. Moreover, the response has demonstrated a transformative learning experience: the student's thought process has taken them away from merely discussing the article and into a musing about moral relativism and its implications for trusting others.

Another example, from a student in my Spring 2021 Introduction to Philosophy Course, demonstrates a student grappling with how well an historical philosophical argument applies in a more contemporary context:

> *The main idea that Hume was trying to convey was his method of identifying empty words. "When we entertain, therefore, any suspicion that a philosophical term is employed without any meaning or idea… we need but enquire,* from what impression is that supposed idea derived?" *First, we identify the impression, or original perception of an experience, behind an idea. Then, by judging the validity of that impression, we are also able to judge the validity of the idea.*
>
> *Throughout the reading Hume provides ideas that build off each other and give context for his main claim. He starts by defining* Ideas and Impressions, *then goes on to show how the two are intrinsically linked. "But though our thought seems to possess this unbounded liberty, we shall find, upon a nearer examination, that… all our ideas or more feeble perceptions are copies of our impressions".*
>
> *One similarity between Descartes and Hume was their ideas on the origin of the imagination. Hume wrote, when defining ideas, that "all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience". In other words, anything a person can imagine is in some way derived from a real-world experience. Descartes seemingly would agree, as in Meditations he wrote that "even when painters try to depict sirens and satyrs with the most extraordinary bodies, they simply jumble up the limbs of different kinds of real animals, rather than inventing natures that are entirely new."*
>
> *Hume's method for finding "terms employed without any meaning" seems to be extremely situational, and there are a few holes in his theory that potentially undo the whole thing. One of them Hume acknowledges, with his example of a colorblind man imagining a shade of color that he can't physically see, but ultimately discounts as being too "singular" to be worth accounting for. Another possible hole in Hume's theory is PTSD, where people can experience flashbacks of traumatic events "as if the event were actually happening"* (https://www.psychologytoday.com/us/conditions/post-traumatic-stress-disorder), *which could put Hume's initial claim that ideas are always "the less lively perceptions" under dispute. Still, when used expressly for the purpose of identifying empty talk, and especially in more technical fields, Hume's method could be extremely viable.*
>
> *Assuming Hume wrote this piece before the modern understanding of PTSD, does the condition now being recognized blow apart his whole line of reasoning? Or is it like his example of the colorblind man, being*

Encouraging Critical Engagement *continued*

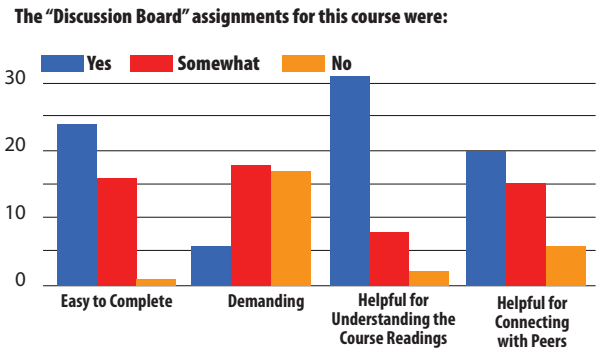
> *too "singular" of a case to need to be factored into his reasoning? Or even, would it fall under Hume's description of a "mind… disordered by disease or madness" and so not affect his theory whatsoever?*

Beyond merely reporting the details of the reading, this student has reflected on its applicability to phenomenon that might challenge the strength of Hume's argument. As such, this response demonstrates a transformative learning experience in that the student has moved beyond the details of the argument itself to the nature of philosophical argumentation more generally.

Most importantly, students themselves find this assignment helpful for comprehending course content. At the end of the Fall 2020 semester, I administered an anonymized survey through Google Forms to all students in my two Introduction to Philosophy courses (Figure 3). In both courses, students were required to post focused reading responses to a discussion board throughout the semester. Of the 41 students who completed the survey, 31 responded that the discussion board assignments were helpful for understanding course readings, while eight students responded that the discussion board assignments were somewhat helpful for understanding course readings. Students also indicated that the assignments were easy to complete and were helpful for connecting with peers (see Figure 3).

Figure 3:

Student responses to a question about the focused reading response discussion board assignments given throughout the semester.



By providing clear directives that connect to transformative learning experiences, students can glean how this assignment advances their understanding of philosophy and hones creative and argumentative writing skills.

5. Conclusion

Focused reading responses effectively motivate students to read and critically engage with course readings by providing clear directives for students to compose meaningful reading responses. They are versatile assignments, working well in both face-to-face and remote teaching environments, as well as in various disciplines. By utilizing Bloom's Taxonomy and the 4R Model of Reflection, the assignment clearly communicates the connection between the learning objectives for the assignment and the desired learning outcomes for the course, providing students with the resources they need to achieve a transformative learning experience.

Encouraging Critical Engagement *continued*

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TEACHING REPORT

Flipping the Classroom in Project and Team-Based Learning: COVID made me do it!

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Abstract:

Forced to go online in the Spring of 2020 and then hybrid in Fall 2020 due to the COVID pandemic, this paper outlines the experiences, techniques, and lessons learned in team-based and project-based courses. After a brief overview of the fundamentals of team-based learning (TBL), project-based learning (PBL), and flipped learning, this paper then reflects on how transitioning from the in-class setting to an online or hybrid model impacts content and delivery in TBL and PBL classes. Considerations for future transitions to online or hybrid formats are outlined, as well as potential long-term impacts on future pedagogical practices.

Keywords:

Flipped Classroom, Team-Based Learning, Project-Based Learning, COVID, Online Teaching, Hybrid Teaching

The COVID pandemic that emerged early in 2020 impacted our lives in many ways. For teaching faculty across the globe, the abrupt transition to online teaching in the Spring and the turn to hybrid classes in the Fall created a great deal of confusion and stress but also provided an opportunity for pedagogical growth. For those who had no experience or desire to teach in a virtual environment, the need to reimagine the classroom and address technological issues in a very short period was a daunting task. Many turned to live synchronous lectures, voice-over-PowerPoints, or recorded videos to transfer information to students. As a college professor who teaches all project-based and team-based courses with numerous in-class activities, I felt like a swimmer being pulled away by a riptide struggling to keep my head above water. I would like to say that I did some quick research on best pedagogical practices for online teaching in project or team-based classes, but I did not. Instead, like many of us, I dove in, held my breath, and hoped for the best.

Drawing on two college-level project and team-based classes as case studies, this article discusses the choices and the lessons learned during the transition to online and hybrid formats. After a brief introduction to team-based learning (TBL), project-based learning (PBL), and the flipped classroom, the paper moves on to discuss how two specific courses were altered for these new environments. The paper continues with things to consider when transitioning to online, hybrid, or flipped classroom approaches in TBL and PBL classes and ends with some final reflections on the potential long-term impacts on teaching strategies.

Flipping the Classroom *continued*

High Impact Teaching Strategies

Team and Project-Based Learning

TBL and PBL are distinct yet often related pedagogical approaches that have increased in popularity in recent decades. TBL allows faculty to create a small-class environment while students are part of a larger cohort, promoting greater student participation and engagement levels without requiring a small class size (Haidet & Fecile, 2006; Michaelsen et al., 2008). A critical component of this approach is recognizing the difference between working in 'groups' versus 'teams' and employing specific strategies to transform the students into high-functioning teams (Michaelsen et al., 2004). In a TBL approach, students are briefly introduced to course material and then asked to apply their understanding of the content, dedicating most class time to group work instead of content delivery. There are four key components to implementing TBL in the classroom: group creation and management, student accountability for individual and teamwork, frequent and timely feedback, and assignments designed to transmit content and cultivate group cohesion (Michaelsen & Sweet, 2008). A recent overview of the literature on TBL found evidence to support the benefits of team-based learning, such as supporting students who are struggling, promoting classroom engagement, improved teamwork skills, and transfer of knowledge to real-world applications (Haidet et al., 2014).

PBL is a type of inquiry-based learning where students learn by working through real-world problems centered in specific contexts (Al-Balushi & Al-Aamri, 2014) emphasizing a final product (Blumenfeld et al., 1991). When implemented effectively, PBL should lead to meaningful learning experiences (Wurdinger et al., 2007). Studies have shown that PBL improves critical thinking, collaboration, communication, and problem-solving skills (Du & Han, 2016). However, PBL can also have drawbacks; a 2014 study found that inequitable divisions of labor or a perceived lack of time to contribute to the project can lead to mixed learning outcomes for students in PBL classes (Gibbes & Carson, 2014). Concerns also are raised in a recent opinion piece published in Inside Higher Ed, where a graduate student argued that group work should not have been required during COVID as it was more difficult to hold teammates accountable in remote learning situations (Turner, 2020). From a faculty perspective, while TBL is often seen as an effective way for faculty to manage large classes, PBL is perceived as labor-intensive or difficult to manage due to the complexity of projects, the lack of control over some content, and difficulty in assessment (Du & Han, 2016).

Flipped Learning

In the traditional classroom, the standard of practice has been for the teacher or professor to lecture and the students to be passive recipients of this knowledge. However, in the move to make learning a more engaging process and improve student learning outcomes, universities and educators are continually looking for new ways to make this possible (Brewer & Movahedazarhouligh, 2018). One strategy that has grown in popularity is flipped learning, or the flipped classroom (Bergmann & Sams, 2012; Talbert, 2017). It has been argued that flipped learning is not only a more efficient use of class time, but it also improves the transfer of information and learner retention (Estes et al., 2014). In a flipped learning approach, the teacher provides learning material to the students outside of the classroom and then uses class time to engage students actively and provide them with individual support (Hamdan et al., 2013). Studies have shown the benefits of a flipped classroom, such as improved scores (Aronson & Arfstrom, 2013; McLaughlin et al., 2013) and improved design skills (Love et al., 2014; Warter-Perez & Dong, 2012). Flipped learning also lends well to problem-based learning as students can spend more time in class practicing active learning. Additionally, flipped learning is associated with high-level skills such as critical thinking, creative thinking, self-managed learning, problem-solving, and communication skills (Yurniwati & Utomo, 2020).

Recent studies have also emerged on the positive use of the flipped classroom in an online setting during COVID (Gupta, 2020; Yurniwati & Utomo, 2020). For example, researchers found that while most students were unhappy with their online experience during the pandemic, the flipped learning approach improved their learning, attention, and evaluation of classes (Tang et al., 2020). Other researchers found that the flipped classroom was effective in an online platform, especially when it incorporated a combination of pre-class, during-class,

Flipping the Classroom *continued*

and post-class activities (Yen, 2020). Finally, researchers specifically looked at TBL in an online environment (that used a flipped-classroom approach) and found that the most significant challenges they faced were difficulty monitoring student engagement and difficulties with online connectivity (Wong et al., 2020).

The sudden move to online and hybrid teaching due to the pandemic forced many educators into making fast, difficult, and often not fully informed choices about their teaching. These studies have shown that flipping the classroom may be an effective choice in approaching the online setting. Additionally, a flipped class may be an especially appropriate choice when working with team-based and project-based courses as it allows for the limited in-class or synchronous time to be dedicated to working with teams and individuals who need support.

This paper examines the shifts in implementing TBL and PBL from in-person to online (case study one) and hybrid classes (case study two) at a private, mid-size STEM college in the United States. Team-based and project-based learning are fundamental aspects of the school's two signature programs, the Great Problems Seminar (GPS) and the Global Projects Program (GPP). Drawing on the author's experience in adapting PBL and TBL classes to online and hybrid settings, the strategies and lessons learned are discussed.

Case Study One: TBL and PBL Online

The Global Projects Program oversees a semester-long, project-based requirement called the Interactive Qualifying Project (IQP), which students complete in their third year. The goal of this project is for STEM students to engage with the intersection of humanity and technology. At the beginning of the project period, student teams are assigned a sponsor, usually from outside the university, who provides the team with a problem or issue that they would like the students to address. Students take a course titled 'Social Science Research Methods in Preparation for the IQP' during the first seven weeks. In this course, the students work with an instructor, their project sponsor, and two additional faculty advisors to research their topic and develop a proposal. The course typically closes with a formal proposal presentation where students have to present and defend their proposed research project to an audience of students, faculty, and project sponsors. During the second seven weeks, the students tackle the problem directly through on-the-ground research[1]. Prior to COVID, 90 percent of the students traveled abroad to complete this project; due to the global pandemic, all projects were completed remotely between March 2020 and May 2021. During this time, over 1,300 students, working with 65 different project centers around the globe, prepared for and completed their projects virtually. This case study examines one online implementation of the course that prepares students for their research experience.

This specific course prepared a group of 24 students to conduct research projects with sponsors located in Switzerland. Each of the six projects had a different focus ranging from addressing the environmental impacts of packaging for cheese cultures used by small-scale dairy farmers in the Swiss Alps to incorporating artificial intelligence into otology research. On the first day of the course, students were placed into teams of four based on their project preference, skill set, and other additional factors that they identified to create the most effective team possible for the project. The team works together for the entire 14-week project experience. Because this course was taught early in the pandemic (March-May 2020) and the students were not scheduled to travel to Switzerland until the Fall of 2020, the class had to prepare them to be able to conduct research both virtually and in person, as it was unknown if travel would be permitted in the Fall. By the end of the course, students were expected to have a fully developed research proposal for the work that they would conduct over the next seven weeks.

Course Delivery: Online and Asynchronous

Due to the constraints of the pandemic, it was required that this course be taught online. In preparation for the class, a survey was sent to the students before the start of the term to get a sense of their living situation, the time zones, and access to the internet to help inform the set-up of the class. The majority of the course content (or lecture content) was provided asynchronously through a series of blogs and podcasts. The students

[1] *For a lengthier discussion of the program, also referred to the IQP, please see Elmes and Loiacono. 2009. Project-based service-learning for an unscripted world: the WPI IQP experience. International Journal of Organizational Analysis 17(1).*

Flipping the Classroom *continued*

completed weekly online quizzes on the content, and the instructor met with the teams synchronously, treating the course much like a flipped classroom. The class as a whole met just once, for the first session, and then did not meet again. Instead of meeting with the entire class for four hours a week, the instructor met with each of the six teams for one hour weekly. During these weekly meetings, progress on the proposal was discussed; topics included background research, writing and revision, and data collection tools and strategies that the teams would be using the next term. While meetings were driven by the needs of the students and their specific project, time was allotted each week to review content that team members might have been struggling with based on their performance in the asynchronous quizzes and assignments. While the students technically received fewer 'contact' hours, faculty time interacting with students increased by 50%.

One challenge that arose in teaching this TBL course online was creating a sense of accountability among team members. Accountability is a crucial component of successful team-based learning but proved to be incredibly difficult to establish virtually. Students commented that their teammates were texting, playing video games, and talking to people off-camera during team meetings. Another common problem that they reported was that some teammates did not turn on their cameras during meetings, leading their peers to think that they were disengaged. One strategy used to address this problem was to encourage teams to have regularly scheduled meetings and require that they submit meeting minutes to a folder that both the faculty and their peers could review to help promote accountability.

While some students adapted well to the asynchronous setting, many students commented that they had difficulty planning their days and scheduling time to do work. In addition, a number of students felt that the asynchronous format led to a lack of accountability; as a result, they would leave assignments until the last minute. One student said that she just 'checked out' because she did not have regularly scheduled classes to attend and keep her focused. Others noted that while they liked the special team meeting time, they wished that there was structure in their day-to-day routines and commented that having regular class meetings would have helped them create a routine similar to what they had on campus. In reviewing student feedback on the course, one-third of the students commented in the open response section that they would have liked to have met as a class at least once a week instead of just having synchronous team meetings and the rest asynchronous.

Typically, an underlying goal of the class is to create a cohort of students who will 'look out' for each other once they are abroad. Since it was likely that the students would not be traveling this year, this was not emphasized. Based on student feedback, however, it appears that students would have appreciated a focus on cohort building despite not being on campus and the uncertainty related to travel in the Fall.

Course Content: Virtual Challenges

It also had to be determined how online, primarily asynchronous delivery would influence the content and grading of the course. While converting the lecture content to an online format was straightforward, a large percentage of the students' grades were traditionally based on presentations and participation in various in-class activities. Fully aware that it would be impossible to replicate the classroom experience, but still wanting students to do more than be passive learners, decisions were made about what could be transformed to an online setting and what should be eliminated or altered. Since this was a social science research methods class, a number of the smaller in-class activities were converted to brief homework assignments. For example, instead of interviewing a classmate and filling out a brief worksheet, students interviewed someone with whom they were in lockdown. Anticipating that the students would be conducting their research remotely the next term, assignments related to conducting qualitative research in a remote setting were added. In one assignment, students had to compare conducting an in-person interview with conducting an interview remotely via zoom. Many of these activities were converted with moderate success; however, it did create more work for the instructor as there were now a large number of homework assignments to evaluate.

Another challenge was the significant emphasis that the course traditionally placed on in-class presentations. The ability for students to physically stand in front of a group

Flipping the Classroom *continued*

and communicate their ideas to a general audience clearly and confidently has always been a central component of the course; this experience is fundamentally different on zoom. As a result, the decision was made to eliminate formal presentations as part of the students' grades and instead emphasize expressing and sharing information visually via infographics. While the students still presented their research regularly in weekly meetings, it was no longer a formal component of the class.

Table 1

Differences in in-class versus online course structure, content, and delivery

	In Class	Online
Structure	Met with the whole class	Met with teams only
Content	Presentations Traditional research methods	Infographics Virtual research methods
Delivery	Mini lectures In-class activities No Quizzes	Blogs and pod-casts Homework assignments Quizzes

Case Study Two: Hybrid TBL and PBL

This case study examines a team-taught, writing-intensive, semester-long course for first-year students in the Great Problems Seminar (GPS). The GPS program provides an opportunity for students to tackle complex problems from an interdisciplinary perspective. Taught over two terms (14 weeks) with two professors from different disciplines, the students engage in topics related to food, shelter, and energy, among others. At the end of the two terms, students participate in a public poster presentation to share their work with the larger community.[2] During the academic year of 2020-2021, all of the GPS courses were taught either online or in a hybrid manner providing 309 first-year students an introduction to TBL, PBL, and their college experience. In this context, hybrid refers to teaching a class where some students attend in-person while others are either entirely remote or are remote for portions of the term due to being placed in quarantine.

The iteration of the GPS program discussed in this case study combines anthropology, humanitarian architecture, and design. It is co-taught by an anthropologist and an architect. This hands-on class had 35 in-person students, two entirely remote learners, and several students placed in two-week quarantine during the term. During the course, the students are tasked with a long-term, team-based project in which they have to design a shelter. The end of the course is typically celebrated with a large poster exhibition which brings together hundreds of students from all of the different iterations of the course being taught that term. The student teams and their posters are evaluated by outside judges, including students, faculty, alumni, and professionals. Due to the pandemic, this final event was converted on an online format, using a combination of Padlet and Zoom, carried out over several days instead of a single three-hour poster exposition.

Course Delivery: Hybrid and Socially Distanced

Due to the hands-on nature of the course and the fact that these were first-semester freshmen, it was important to meet the students in person as much as possible. Usually, the class would meet twice a week for two hours each meeting; class time would typically be a combination of mini-lectures and group work. However, given the space limitations associated with social distancing, it was impossible to meet with all of the students simultaneously. Instead, half the class met on one day, and the other half of the class met on the other day, essentially breaking the class into two sections and repeating the content on those days. While in the classroom, the students worked on projects in teams of four that rotated every few weeks and included those

[2] *For an in-depth overview of the program and conducing project-based learning with first year students please see Wobbe and Stoddard eds. (2019) Project-Based Learning in the First Year: Beyond all Expectations. Stylus Virgina.*

Flipping the Classroom *continued*

physically in class and students attending virtually. This rotation allowed students to get to know one another in preparation for creating the final groups for the course, where students work together in teams on a single project for nine weeks.

Fortunately, the university was able to support this organizational strategy with space, technology, and resources. The class was held in one of the newer active learning classrooms and given special permission (given COVID) to arrange the tables into blocks where the students in teams of four could all sit six feet apart while still facing one another. The large, open floorplan room had movable tables, wireless projection technology, speakers, microphones, and cameras so students zooming into class could both see and hear the classroom, as well as be seen and heard by their peers. At the beginning of class, remote students would generally zoom into the larger group to get oriented to the day's activity and then go into a separate zoom call with their team.

One of the most important resources that we had for making these smooth transitions and managing the technology in the classroom were our Peer Learning Assistants (PLAs). Prior to teaching the class in a hybrid setting, PLAs supported the class by holding office hours, grading homework assignments, and providing students with CAD and 3-D printing support. In a hybrid environment, their roles shifted as they helped manage the classroom technology and provided online support to the students. During class time, they held open office hours for the section of students who were not physically present. They also held additional online office hours outside of class time to support the students in writing, research, and CAD. PLAs were also able to help identify teams that were struggling in either understanding the course content or with issues related to team dynamics.

In-class time focused on hands-on activities in a socially distanced manner. Some of the skills emphasized were presenting, critical thinking, accepting feedback, and teamwork. During the first term, almost every class meeting had a design challenge (which students had prepared for by completing a related homework assignment ahead of time). Teams were given 45 minutes to an hour to develop and present their solution to the design challenge. In one design challenge, teams were tasked with addressing water shortages at a specific refugee camp. Teams were given some limiting parameters but had complete freedom in how to approach the problem. Most teams focused on water collection strategies, but one team decided to look at reducing water usage and the possibilities of using greywater at the camp. Their classmates applauded this unique approach. In this exercise, the students provide each other with feedback on their ideas, presentation skills, and visual representation of the concept. This feedback loop, combined with instructors' in-class review of their work, requires students to think critically about their own design choices and recognize alternative visions. This fast-paced, hands-on approach challenges students in many ways, including speaking in front of their peers and learning to incorporate feedback from both the faculty and other students. The regular informal presentations also help students get comfortable speaking in front of the group and prepare them for the more extensive project presentations.

Another critical aspect of the hybrid context was the interaction between remote and in-person students. As the class progressed, there was an increasing number of students zooming into class due to being in quarantine. Teams that actively engaged and paid attention to the remote students created a much better learning environment for their virtual peers. For students who were zooming into class or team meetings, it was crucial that they had an in-person buddy or advocate to make sure their voice was heard by the rest of the team. When this was not practiced, the remote students revealed that they felt isolated or 'left out.'

Course Content: A Flipped Approach

With only half of the regular contact hours, the most significant decision was how to best use the in-class time with the students. To make facetime as interactive as possible, a flipped-classroom approach was employed. All 'lecture' content was placed online in blog posts, videos, and podcasts. Students were expected to familiarize themselves with the material and complete a weekly online quiz based on the content before coming to class that week. There was also a series of graded homework assignments that primed students for conducting in-class activities.

Another adjustment was organizing the class so

Flipping the Classroom *continued*

students were working on a team project from day one. Prior to this iteration of the course, the first five weeks of the class consisted of several smaller one-off assignments that the students completed individually or with a random group of peers. These were generally low-stakes assignments that students sometimes interpreted as busywork despite laying the foundation for vital research, writing, and teamwork skills. This year the class took a different approach. Instead of several smaller assignments, the students completed two mini projects (2-3 weeks each) and one long project for the class. The smaller projects created COVID bubbles so there was less interaction with different classmates outside of class, but it also allowed students to interact and connect, a very important yet difficult thing for first-year students due to the social distancing rules on campus. Over 25 percent of the free-response comments in the course evaluations mentioned how much they appreciated working with different groups during the class to get to know a variety of their peers.

All the in-class activities, homework assignments, and mini-projects provided scaffolding for the larger team project. In addition to providing additional continuity for the students, the team-based structure also functioned as a counterpoint to the reduced in-person time the students were experiencing and the struggles with time management students had revealed in course evaluations during the all-online courses in the Spring of 2020. While it was not enforced, students were encouraged to meet as teams during the two hours of scheduled class time that they were not in the classroom. Many teams reported that they did meet regularly with their peers during this time. The PLAs also offered online office hours during this time slot to provide additional support for the students.

An emphasis on teamwork skills became even more critical as COVID restrictions made it more difficult for team members to interact socially outside of class. Class time was used to help the students get to know one another before diving into their projects through activities such as asset mapping and discussing areas where students want to improve skills related to their projects, such as writing, researching, and CAD. When teams were in crisis, they were directed to the SWEET center on campus, which provides guidance for teams struggling with working together successfully.

Despite all of these efforts, however, it was much more challenging to get to know the students and for the students to get to know one another than in a typical in-person classroom setting. Between being masked and only seeing students for two hours a week instead of four, the instructors struggled with getting a good sense of the strengths and weaknesses of the individuals in the class. It was difficult to connect a name to a face (or mask)! Similarly, team dynamics issues were harder to identify. The lack of time with each group and difficulty reading facial expressions most likely also played into this challenge. It was not until students did their first round of team evaluations that it was revealed which teams were struggling. Compared to previous years, more students noted that it was difficult to hold their teammates accountable and that their peers often seemed distracted during team meetings, would show up late, or would not be prepared.

Table 2

Differences in structure, content & delivery for in-person and hybrid teaching

	In-Class	Hybrid
Structure	Met with the whole class Teams for the last half of course No Zoom Limited PLA office hours	Met with half the class In a team the entire course Zoom for remote students PLA office hours during class time
Content	Multiple assignments Design challenges	Three team projects Socially distant design challenges
Delivery	In-class lectures No quizzes	Blogs, podcasts, recorded lectures Quizzes

Lessons Learned

Drawing on these two examples, there are three areas of TBL and PBL that deserve special attention in an online or hybrid setting: team dynamics, structure and contact hours, and connection and inclusivity. While team dynamics are always a focus in TBL, it appears that teams need special attention in an online or hybrid environment as team dynamics can be more challenging to manage when there is less contact between team

Flipping the Classroom *continued*

members and between teams and faculty. Creating accountability between team members, a key component of TBL (Michaelsen & Sweet, 2008), appears to be more challenging than when teaching and learning in a face-to-face setting. Team dynamics issues are also more difficult to identify and address when they arise due to this lack of accountability observed in a virtual environment.

Additionally, the students forced into online and hybrid environments have different needs than those who traditionally take online classes, whom studies have found tend to be more intrinsically motivated (Stewart et al., 2010). While some students enjoyed the freedom and flexibility of being online, many struggled with time management and requested that classes be synchronous. These students sorely missed the structure that came with being on campus with days full of classes, club meetings, and sports practice. The shift from being overscheduled to having virtually no schedule was a difficult transition for many who struggled to deal with all of the 'free time' they experienced. In planning online or hybrid PBL and TBL classes, it is crucial to provide a structure students can use to organize their time and to gauge their need for contact hours and face time with both faculty and their classmates. Telling students how often they should meet with their team and asking them to provide a weekly schedule and minutes of their meetings reinforces the importance of meeting, social contact, and accountability.

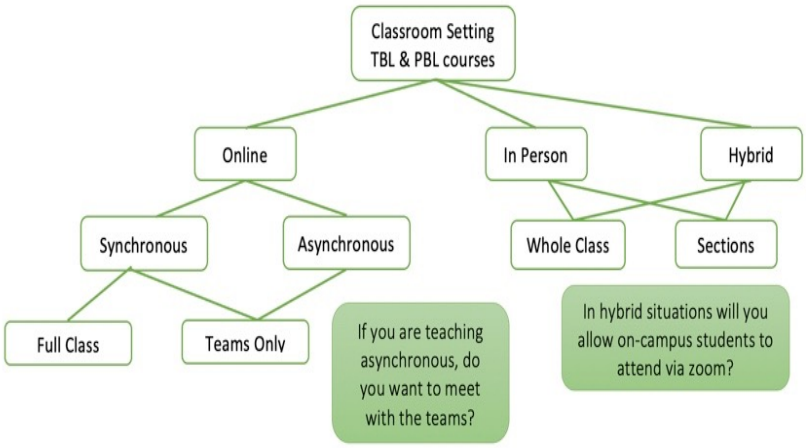
Finally, building a sense of community and creating an inclusive environment for all students is particularly important for online TBL and PBL courses. This becomes especially apparent with remote students in a hybrid setting; the connection and support from their peers on campus are key for their success as they, too, are looking for that grounding and connection to what is happening on campus even though they are not physically present. A lack of connection in this context can be particularly damaging for TBL.

Future Decisions

Looking at the future of higher education globally, it is clear that online teaching will continue to have a strong presence long after the COVID pandemic has passed. Some will continue to teach online, while others will transition back to in-person classes. No matter the context, the previous year of online and hybrid teaching that occurred due to COVID in 2020-2021 has left its mark on academia and faculty's pedagogical practices across the globe. For those considering transitioning TBL and PBL courses to an online or hybrid setting, or simply considering adopting a flipped-classroom approach for in-person classes, there are a few things to consider: what kind of classroom setting will you have, how will the format change impact your content, and what is the optimal format of content delivery for your course?

Figure 1

Factors in considering the classroom setting



Classroom Setting

The first decision is to determine the setting. Will the project or team-based class be online, in person, or a hybrid format? What considerations need to be taken into account to make this choice? Issues such as personal safety, space restrictions, impacts on team dynamics, and available technology should be considered. Are your students all in the same time zone? Is it best to meet the whole class, sections of the class, or would it be the best use of your time just to meet with teams?

Flipping the Classroom *continued*

Content

Another consideration is what content is most appropriate for the classroom setting? On what skill sets do you focus? What information is essential for the course? What can you let go? For example, in case study one, we saw that the faculty were unsure how to evaluate presentation skills in an online environment, so the focus shifted to the visual representations of data. When considering how to adapt your project-based or team-based syllabus to a hybrid, online, or flipped setting, here are four questions to ask:

1. What skills and content are most important?
2. Can the assignments be adapted for remote students, an online setting, a flipped environment?
3. How will this change the grading breakdown?
4. Will you need to adjust or alter your expectations? If so, how?

With these questions in mind, review the content of your syllabus as well as assignments. Consider how much flexibility you have over the content of your course. What changes can you make? Can you adjust your grading to meet the needs of a flipped classroom or an online setting? Can you shift emphasis away from one skill set that is difficult to replicate online and replace it with one that is more appropriate for the given context?

Delivery

Hand-in-hand with considering the classroom setting and content is determining the mode of delivery. If you are teaching in-person, hybrid, or in a synchronous online class, how do you want to use the facetime that you do have with the students? While not the only options, the two choices considered here are the traditional lecture style and a flipped classroom approach. The traditional lecture will be the most straightforward transition but may not have high levels of student engagement. With a synchronous lecture, technology may create difficulties with information transfer.

The flipped approach is more work upfront and may not work for all content but is associated with higher levels of student engagement in-person and online (Tang et al., 2020). From an organizational standpoint, teaching a flipped class means that class materials must be available and ready for the students at least a week in advance. Writing blogs, recording podcasts and videos, and creating effective online quizzes in preparation for a hybrid or flipped environment is time-consuming, even when a class has been taught previously.

Table 3

Considerations for flipped learning

Considerations before flipping…
• Do you have time to prepare the materials for a flipped classroom?
• Does the material you are teaching lend itself to hands on learning?
• What kinds of resources are already available and what do you have to create from scratch?
• What activities would you do during class time if not lecturing?

The COVID pandemic disrupted higher education across the globe. Instead of focusing on the negative impacts (and there were many), it is also important to recognize the possibilities that emerged during this difficult time. Understanding the lessons learned and how these challenges have altered our approaches to teaching and learning are the first steps in transforming this experience into a learning opportunity. The increased adoption of a flipped classroom and other high-impact teaching practices is just one possible outcome that we can hope emerges from this experience.

Flipping the Classroom *continued*

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TEACHING REPORT

Using the Motivational Framework for Culturally Responsive Teaching to Guide Assignment Design and Implementation

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Abstract

This article illustrates the potential for the Motivational Framework for Culturally Responsive Teaching to guide assignment design and delivery in the college classroom. Specifically, this article discusses the ways in which an upper-level writing course at a Hispanic-Serving Institution utilized the framework to guide interactions on class discussion boards and the design and implementation of a final project called the Visual Snapshot Journal. Throughout the discussion, student work is shared as a way of showcasing the framework in pedagogical action.

Keywords:

culturally responsive teaching, student motivation, intrinsic motivation, personal experiences

In 2018, Florida International University (FIU) launched its Evaluating Teaching (ET) Project, a university-wide initiative that emphasized the importance of effective teaching in student learning and success. A core component of the ET Project is the "Vision for Teaching Excellence", FIU's model for inclusive teaching built upon Raymond J. Wlodkowski and Margery B. Ginsberg's Motivational Framework for Culturally Responsive Teaching. Developed in 1995, the motivational framework is comprised of four elements: establishing inclusion, developing attitude, enhancing meaning, and engendering competence. As part of the ET Project, FIU offered specific guidelines and practical suggestions for how faculty might implement the framework, including activating students' relevant background knowledge in class discussions and providing students with some degree of choice in assessment methods. In sum, the ET Project encourages faculty to apply the motivational framework to our pedagogical practices so that we might "create inclusive learning environments that leverage diversity, student backgrounds, and lived experiences as resources for learning and success" (Florida International University, 2018).

FIU's decision to prioritize our students' diversity and lived experiences within the ET Project is a context-specific response to the FIU student population. FIU is a designated Hispanic Serving Institution (HSI) in Miami, Florida with approximately 54,000 undergraduate and graduate students, over 60% of whom identify as Hispanic. Accordingly, our classrooms are linguistically and culturally diverse, and a culturally responsive approach to teaching makes valid pedagogical sense.

Using the Motivational Framework *continued*

I begin with this overview of the ET Project as a means of framing my approach to teaching ENC 3371: Rhetorical Theory and Practice during the Summer 2020 semester. This course is a required course for Writing and Rhetoric majors and for those completing the Certificate in Professional and Public Writing; it also counts towards our pre-law certificate. Thus, although the course is housed within the English Department, it draws students from a variety of disciplines, majors, and tracks. As explained in the course outcomes, the course aims to help students "analyze rhetorical principles, ideas, and terminology in local discourse practice and evaluate the impact local issues have on professional and public discourse." The explicit emphasis on local contexts echoes the ET Project's focus on "student backgrounds and lived experiences," a similarity that I realized made ENC 3371 a good candidate for putting the ET Project, and more specifically the motivational framework, into practice.

In what follows, I share my experiences doing so. I begin by providing an overview of Culturally Responsive Teaching (CRT), focusing specifically on its cross-disciplinary applicability. Then, I introduce the motivational framework as a tool that can support CRT, and I offer my pedagogical experiences implementing the framework in this way.

Culturally Responsive Teaching

First introduced in 1995 by Gloria Ladson-Billings, Culturally Responsive Teaching (CRT) begins with two recognitions. First, students are not culturally homogenous, and second, learning is enhanced when "teachers utilize students' culture as a vehicle for learning" ("But That's Just Good Teaching," p. 160-161). Put simply, CRT makes cultural diversity an explicit component of classroom practices. More traditional pedagogical approaches tend to assume a homogenous group of learners, ignoring our students' cultural diversity. When this happens, not only does it privilege a very specific population of students (White, middle-class, native English speakers), but it also disadvantages students who do not fit into such categories.

By contrast, CRT recognizes the heterogeneity of students in a classroom and takes steps to affirm and value this diversity. As Zaretta Hammond (2014) explains in *Culturally Responsive Teaching and the Brain*, CRT "acknowledge[es] the personhood of each student, appreciating all aspects of them especially those culturally specific traits that have been negated by the dominant culture" (p. 94). The teacher enacting CRT views her students as individuals with unique, situated cultural experiences. Her pedagogical practices are "relevant and responsive to the languages, literacies, and cultural practices of students across categories of difference and (in)equality" (Paris, 2012, p. 93). She recognizes that the classroom is comprised of many diverse bodies, each one influenced by valuable cultural histories and experiences.

Given the inclusive focus of CRT, it is perhaps not surprising that scholars from various disciplines have continued the CRT conversation. For instance, scholars discuss topics such as the ways in which CRT aligns with efforts towards more equitable education (e.g., Krasnoff, 2016; Paris, 2016), the value of CRT for English teachers (e.g., NCTE, 2005), the role of CRT in teacher education programs (e.g., Howard, 2003; Paris, 2016; Lucas & Villegas, 2010), and suggestions for enacting CRT at both the classroom and institutional levels (e.g., Austin, et al., 2019; Gay, 2010; Hammond, 2014). Especially relevant to the current discussion is *Currents*' recent contribution to the growing body of CRT scholarship with Jason Leggett's and Reabeka King-Reilly's (2020) discussion of how they use CRT alongside Critical Medial Literacy to "facilitate and engender dialogue [in the classroom] in response to misinformation" (p. 6).

The Motivational Framework for Culturally Responsive Teaching

One strategy for enacting CRT is the motivational framework. The framework is divided into four equal parts, each one a necessary component to enacting CRT: establishing inclusion, developing attitude, enhancing meaning, and engendering competence. The FIU ET Project summarizes the four elements in the following way:

- Establishing Inclusion: Creating a learning environment in which learners feel capable, respected, accepted, and connected to one another.
- Developing Attitude: Creating a favorable disposition toward the learning experience through

personal relevance and choice. It's important that teachers first acquire some understanding of students' existing knowledge of subject matter, interests, and cultural background.

- Enhancing Meaning: Creating challenging learning experiences that include learners' values and perspectives, past experiences, emotions, goals, and an awareness that their state of mind influences the learning process.

- Engendering Competence: Recognizing the varied ways in which students can perceive meaning and authenticity, then developing assessments that account for these differences.

Despite the linear presentation of these elements, the aspects are recursive and non-linear. In addition, as we consider the motivational framework as a tool for enacting CRT, it is important to recognize the strengths-based approach in which this framework is situated. The framework rests on the assumption that the cultural experiences, knowledges, and perspectives that students bring with them into the classroom are strengths that deserve to be respected and cultivated. In other words, rather than putting "students in a one-down position that overlooks innate strengths while creating a sense of dependency" (Ginsberg, 2018, par. 11), this framework recognizes and builds upon the strengths that students bring into the classroom.

Implementing the Motivational Framework

During Summer 2020, I adopted the motivational framework as a pedagogical guide for ENC 3371: Rhetorical Theory and Practice. Not only did this choice make sense given my disposition towards CRT, but it also aligned with the ET Project previously set forth by FIU. Despite the specificity of the ET Project to the institution where I work, the motivational framework embedded within this plan is a valuable heuristic for any instructor seeking to implement a culturally responsive pedagogical approach. Thus, my intention in sharing my experiences using the framework is to offer a model that other instructors might follow to guide their own pedagogies. To focus my discussion, I share the ways in which the motivational framework guided two important components of our course: our regular class discussions and the final project. As I discuss the final project, I make references to the assignment sheet (Appendix A), research categories used for this project (Appendix B), and specific examples of student work.

This particular section of ENC 3371 was a fully online course, which means that the majority of our interactions took place on Canvas discussion boards. Each week, students posted both an initial response and two peer responses to the class discussion board, a recurring exercise that gave us practice with the motivational framework in three important ways.

First, because these discussions asked students to not only understand our course texts but also to share their own cultural and personal perspectives in response, these discussions helped me get to know my students – their ideas, interests, and cultural experiences – an important component to the "developing attitude" element of the framework. In addition, I made a point to respond to all of my students' posts, either by asking follow-up questions or adding an additional perspective to their ideas. This helped support the "establishing inclusion" element by creating an online learning environment in which students knew that I heard their voices and valued them enough to respond. Second, these discussions gave students practice thinking about and sharing their cultural and personal perspectives with our class. As they did so, they made connections between the assigned texts and their own prior knowledge, a practice that aligns with "enhancing meaning." Third, students responded to their peers on the discussion boards, engaging in a reflective practice through which they took stock of their own learning alongside that of their peers – what the framework calls "engendering competence."

Following this format, we completed eight class discussions. Therefore, when we arrive at the final project of the course, students are accustomed to "us[ing] culture to make meaning of the curriculum and their own experiences" (Ladson-Billings, 2021, p. 72), and so the attention to student cultures in the final project offers a natural continuation of this focus. The final project is what I call the Visual Snapshot Journal, a project in which students incorporate both written and visual rhetoric to create a series of three journal entries. Within each entry, students are asked to discuss a scholarly text focused on rhetoric along with specific, personal experiences related

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to their identity and/or culture. To begin, I ask students to look at a list of readings and select one with an explicit personal connection to their identity or cultural community (see Appendix A). I organized the readings into eight cultural categories, including African/African-American, Asian/Asian-American, Hispanic, LGBTQ+, Religious/Spiritual, Feminist, Multilingual, and Crafting (see Appendix B).

In order to help students engage with the category they select, I ask them to complete an exploratory discussion board in which they find and analyze a visual text related to their selected category. As an example, I tell students that if I choose "Religious/Spiritual Cultures" as my category, I might find an editorial cartoon that focuses on the particular religion with which I identify. After students locate a visual text, we discuss the potential for representations to impact our understanding of identity. I then ask students to respond to five specific questions and post their responses along with their visual texts to our class discussion board:

1. Which category have you chosen? What is your personal connection to this particular category?
2. How is the particular identity or cultural community being represented in this visual text? Is the representation favorable or derogatory? What biases, stereotypes, and/or norms are promoted?
3. Consider what we **can** see within this visual text (i.e., people, locations/places, other visible items). What message(s) are being communicated about this identity or cultural community?
4. Consider what we **cannot** see – what is missing or absent from this text? Based on your own experiences, what aspect(s) of this identity or community are not represented?
5. Reflect on this quote from our reading: "We learn who we are by how we are represented. […] We construct an identity for ourselves based on…images. Our feelings of who we are become deeply influenced by how we identify with images or symbols" (p. 300). Based on your responses to the above questions, what messages does this visual text send about your identity and/or culture? What feelings does this elicit? Do you feel that this text is an accurate and/or positive representation? A harmful and/or biased representation? Something else?

My intention in beginning our final project with this discussion board is to provide a guided entry point for students to begin exploring the cultural category they've selected. I want students to approach this category from two related perspectives: first, from a public perspective – students consider the rhetoric that circulates about this community in a public, visual text; second, from a personal perspective – students examine their own reactions to such rhetoric, in particular the ways in which their own experiences align with and/or challenge these messages.

Following this discussion, I tell students that they are welcome to integrate what they posted on the discussion board into their final project. In this way, the discussion board assignment acts as a form of brainstorming for the larger project. Additionally, not only does this assignment provide a low-stakes way for students to begin working on their final project, but it also aligns with the motivational framework by inviting students to use their prior knowledge as a lens for analysis and to engage with topics of direct personal relevance.

The next step of the project is for students to post drafts of their project introductions to a class discussion board. It is important that students write their introductions at this early stage of the project. That is, because the conclusion component of the project asks students to reflect on how the ideas they express in their introductions have changed as a result of completing the three journal entries, it is necessary that students write the introduction to their projects prior to completing any journal entries.

Not only is the timing important, but what happens to the introductions after they are written is also significant. First, I ask students to share their introductions with the class. This pedagogical decision helps establish inclusion by communicating to students that their ideas and experiences are valuable and worth sharing. Then, I ask students to respond to what their peers have posted. Specifically, I ask them to focus on connections between their ideas and those of their peers, new perspectives they might offer their peers, and/or new perspectives their peers have offered to them. These peer responses help enhance meaning by inviting students to put their own perspectives and experiences in conversation with

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those of their peers, a move that posits the students' experiences worthy of critical response and engagement.

Next, students work on completing their final projects. To illustrate the ways in which this final project aligns with the motivational framework, I will discuss each element of the framework individually. This is not to suggest that the framework is comprised of four sequential steps; rather, by separately analyzing each aspect of the framework, I aim to highlight the ways in which each element functions within the assignment to support CRT. As I discuss each aspect, I begin with the summaries offered by the FIU ET Project as a guiding mechanism, and I reference specific Visual Snapshot Journals created by three of my previous students: Frank, Katy, and Jazmin. I spotlight these particular student projects because they are representative of the type of work students created in the course and each student agreed to be interviewed regarding their experiences with the Visual Snapshot Journal.

Establishing Inclusion: Creating a learning environment in which learners feel capable, respected, accepted, and connected to one another.

This aspect of the framework is rooted in respect and connectedness, the goal of which is to create an inclusive learning community for students. When used in support of CRT, inclusion is not established by minimizing cultural differences in an effort to highlight similarities among students. Instead, inclusion is created by explicitly recognizing diverse student cultures, by finding ways to "systematically include student culture in the classroom as authorized or official knowledge" (Ladson-Billings, 1995, p. 483). One way that the Visual Snapshot Journal does this is through a list of readings I provide for the students at the start of the project (see Appendix B). This list includes more than 40 readings grouped into eight cultural categories. All of the readings included on the list are academic, peer-reviewed texts, and many have been written by scholars who identify as members of that particular culture.

By presenting published work related to student cultures and, in most cases, composed by members of those cultures, this assignment presents diverse cultural knowledge as a respected form of knowledge within academia. All of the readings on the list carry with them academic endorsement, and while this is not the highest or only way of sanctioning knowledge, it is one way of authorizing student cultures in the classroom. In this way, student cultures are viewed as areas worthy of academic study rather than in conflict with academia. Students are thereby invited to see that "their authentic [cultural] selves are endorsed," which is a prerequisite for establishing inclusion (Wlodkowski & Ginsberg, 1995, p. 63). By making purposeful pedagogical decisions that highlight the validity and legitimacy of student cultures, we can work towards an inclusive learning experience wherein various student cultures are respected and legitimized. Students can then feel connected to one another not necessarily by similar or shared cultures, but rather by the shared recognition that diverse cultures are respected and valued.

Our class discussion boards promote inclusion by valuing student cultures and recognizing the validity in students' prior knowledge. The list of readings I offer for this final project is designed to further support these efforts. In fact, I have found that the list itself is a powerful component of this project. Although I could task students with naming their own cultural connection and finding a relevant reading without the assistance of a list, my experiences suggest it is impactful for students to see diverse categories and readings listed. This is because the list of cultural communities invites students to consider the existence of communities they might not have otherwise considered if they were only focused on their own identities. In short, the list acts as a tool through which students can gain a more expansive cultural awareness.

As evidence of this, we can look to a comment Jazmin offers when reflecting upon her reaction to seeing the list for the first time: "What I love[d] about [the list] is how it recognize[d] the existence of cultures I didn't know much about and create[d] empathy. Including and respecting various diverse cultures in the classroom is refreshing and enlightening." Importantly, Jazmin says she gained an awareness around "cultures [she] didn't know much about" and recognizes her own lack of knowledge about the various cultures on the list. This recognition is integral to creating an inclusive learning community within the culturally responsive classroom. This is because inclusion within CRT is not established by glossing over cultural differences. Rather, inclusion

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within CRT is fostered by highlighting cultural differences. It is inclusion that stems from the shared recognition that diverse student cultures are authorized and respected in the classroom. Thus, it is in the very recognition of cultural differences wherein a culturally responsive, inclusive learning community can take root.

Developing Attitude: Creating a favorable disposition toward the learning experience through personal relevance and choice.

This aspect of the framework is rooted in choice and personal relevance, the goal of which is to position students as active decision-makers in the learning process and therefore motivated to continue that process. Put another way, by "promoting choice and a sense of agency" (Ginsberg and Wlodkowski, 2019, p. 59), instructors can help students feel engaged with and invested in the classroom. Students then become active participants in their own learning, the intention of which is to create the conditions for them to feel positive about and motivated to continue their learning.

When coupled with the purposeful inclusion of student cultures described in the section above, this aspect of the framework directly supports CRT. That is, when pedagogical decisions simultaneously authorize student cultures within the classroom *and* promote student choice, learning becomes "contextualized and anchored in the personal, communal, and cultural meanings of the learner" (Wlodkowski & Ginsberg, 1995, p. 112). Put simply, cultural relevancy becomes situated in students' individual, lived experiences. Learning becomes not only culturally relevant, but also student specific. By giving students the opportunity to make choices informed by what they deem to be significant, we move away from a "static conception of what it means to be culturally relevant" (Ladson-Billings, 2014, p. 77). Instead, we approach cultural relevancy as a dynamic and student-specific component of the classroom, an approach that contributes to students' positive attitudes by giving them the opportunity to personalize and contextualize their learning.

There is also a practical aspect to offering student choice: "From a purely functional standpoint, we as teachers cannot possibly be aware of all the different experiences and backgrounds of our diverse students" (Wlodkowski & Ginsberg, 1995, p. 119). Put simply, it is not realistic for instructors to be experts in all of the student cultures represented in our classrooms. Not only is this impractical, but it is not the goal of CRT; instead, CRT recognizes that students are the experts of their own cultural experiences. Since students are "the people who experience and practice culture in their own lives" (Leggett and King-Reilly, 2020, p. 7), assignments rooted in CRT should provide opportunities for students to choose for themselves what they deem personally and culturally relevant.

The Visual Snapshot Journal encourages students to make such choices during two stages of the project. First, students choose the specific cultural category they want to explore from the aforementioned list. As a class, we discuss the fluidity of the list from several different perspectives. We discuss the likelihood that each of us identifies with more than one of the cultures on the list and the ways in which the categories are not mutually exclusive. Frank, for example, chose the Hispanic cultures category for his project. However, as he explains, this is not the only category with which he identified: "I could have also identified with Multilingual cultures. I ultimately chose the other category because while I may be characterized as bilingual, I don't believe that portrays much of my history or individual personality, something that being Hispanic does. While being bilingual may provide insight into some things [about me], being Hispanic does so a lot more." As Frank explains, he felt that the Hispanic category more thoroughly reflected his "history and individual personality;" thus, he made a choice at the start of the project that allowed his learning to be more personally relevant and meaningful.

In addition, we discuss that this list of categories is incomplete – no list could ever encompass every possible cultural category – and I make sure students know they can tell me if they'd like to explore a category that is not listed. One student took me up on this offer and asked if he could explore the gaming community. Relatedly, Katy responded to this by stating that she preferred the term Latinx to Hispanic and opted to use this term to characterize the category she chose. We further discuss the fluidity of this list by recognizing that many of the suggested readings fit under two or more of the categories. For example, "'Para la Mujer': Defining a Chicana Feminist Rhetoric at the Turn of the Century"

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is listed under the Hispanic category; however, it could have also appeared under the Feminist or Multilingual categories. Similarly, "'To Protect and Serve': African American Female Literacies" appears under the Feminist category, but it is also connected to the African/African-American category.

My intention in highlighting the fluidity of this list is to help students see that the choices they make at this stage of the project are choices about what feels meaningful and relevant to them at that particular moment, not choices that signify one culture as more or less important to them than another. This aligns with Wlodkowski and Ginsberg's (1995) claim that positive attitudes are best developed when students "make real choices based on their experience, values, needs, and strengths" (p. 119). My experiences with the Visual Snapshot Journal add to this claim by conceptualizing "real choices" as choices that reflect where students are in the current moment of choosing.

After students decide the category they want to explore, they then choose which of the articles from the list they want to use for their project. Here again, students are encouraged to be active participants in their own learning, deciding for themselves which specific text they find relevant and meaningful. Jazmin chose to work with the Hispanic category because she identifies as Hispanic. Interestingly, the specific article she chose within that category is about Mexican youth, and she does not identify as Mexican. She explains what prompted her to make this choice:

> The reason I chose to do my project on [this article] is because of how the article reminded me so strongly of my friend. The article spoke about how political rhetoric had an effect on Mexican youth in America. Despite not being Mexican, I saw how heavily it affected my friend's life. When we would hang out, she would express her frustration and anxiety about how she was being represented in the media. Not only that, but when Trump decided to lump all Hispanic cultures into the Mexican one, I was mistakenly labeled Mexican and received some of the aggression they were faced with. I was not the only one, this happened to many other Hispanic cultures. That's what spoke to me the most.

Jazmin's explanation reveals that the choices she made at this stage of the project were impacted by current events in her life – what she and her friend had recently experienced. The choices embedded within the Visual Snapshot Journal allowed her to be an active contributor to her own learning and choose an article that felt currently relevant to her. She goes on to explain that this article "seemed like commonsense because it matched experiences that [she] already had, [which] impacted [her] attitude towards the project and [her] motivation to work on the project. Because [she] felt that [she] could talk on this subject, [she] felt more confident writing about it." Here, Jazmin's comments echo one of the main tenets of CRT: when students make meaningful and personally relevant choices, they develop a more positive attitude towards their learning and are therefore more motivated to engage with the learning experience.

Enhancing Meaning: Creating challenging learning experiences that include learners' values and perspectives, past experiences, emotions, goals, and an awareness that their state of mind influences the learning process.

This aspect of the framework is rooted in engaging with students' prior knowledge, the goal of which is to enhance understanding of course material. In their discussion of this aspect of the framework, Wlodkowski and Ginsberg (1995) explain that one way of engaging students in challenging learning is by encouraging "knowledge building" rather than the one-way communication of "authoritarian truths" from instructor to student (p. 174). They further explain this approach as an "authentic dialogue" between instructor and student "where teachers and learners are involved in a co-learning process" (p. 174). By engaging in collaborative dialogue, students and instructors work together to build a deepened understanding of course material.

My experiences with the Visual Snapshot Journal suggest that instructor-student dialogue is not the only way of encouraging collaborative "knowledge building" in the classroom. Another way of doing so is by inviting students to use their personal, cultural experiences to dialogue with course material. This approach positions students as individuals with valuable cultural experiences as a vehicle for engaging them as students in challenging learning. That is, by asking students to put their first-

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hand, cultural experiences in dialogue with published texts, we can use the personal as an entry point for student engagement with academic scholarship. We can, as Education scholar Randy Bomer (2017) describes, encourage students to "trail with them into the curriculum their kitchens, their celebrations, their language, and their relationships" (p. 14).

It is important to note that this approach to "knowledge building" does not ask students to find places where their personal experiences align with what the texts say. Although it could be beneficial for students to identify areas of agreement with published texts, this approach might be better conceived as knowledge confirming rather than knowledge building. In other words, when students find areas in which their personal experiences agree with and/or support the texts, they are using their personal experiences to confirm what the texts say. However, when students add to or challenge what the texts say, then they are engaged in knowledge building. That is, they use the texts as springboards upon which to construct new knowledge.

The Visual Snapshot Journal facilitates this by asking students to survey the texts for the voices, ideas, and/or experiences that are not present, and then consider the ways in which their own personal, cultural experiences might fill in the gaps or present a missing perspective. This is a challenging task because it asks students to move beyond surface-level text comprehension and instead practice what Wlodkowski and Ginsberg (1995) describe as the "analytic habits of thinking, reading, writing, speaking, or discussing that go beneath surface impressions" (p. 165).

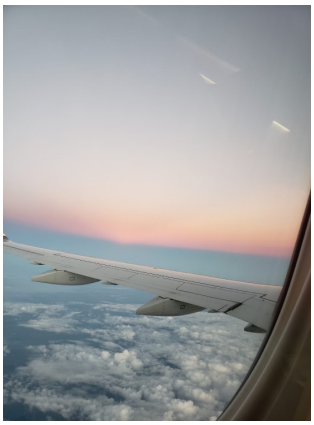
We can see this aspect of the Visual Snapshot Journal in action in one of the journal entries Frank wrote for his project. Frank chose to focus on the article "The Crossing as Constitutional Rhetoric: Balsero Art and Identity from Cuban Refugee Camps and Implications for Cuban-American Relations" by Shannon Howard (2016). In the first journal entry of his project, Frank focuses on Figure 3 in Howard's article – a drawing titled "Children's art from Guantanamo." This drawing, created by a child artist, depicts a person with a frown on their face, sitting in a chair surrounded by barbed wire and water. The word 'libertad' is written above their head, crossed out by a solid black line. In her description of the drawing, Howard writes, "Children's art from Guantanamo also depicts the dream of freedom as possible but illusory since chains and fences barricade the way. The water itself is not a source of anxiety or separation from the United States, even though crossing it is dangerous. Here, barbed wire, not water, separates the refugee from freedom, or "libertad" (par. 7).

As explained on the assignment sheet (see Appendix A), each journal entry is required to include both written and visual components, and I encourage students to use the journal entries as places where they might add to or challenge what the texts say. In his journal entry, Frank does just this – offering what he calls "the antithesis to the struggles of those in Guantanamo Bay." He begins his journal entry by sharing a photo he took during one of the first times he flew in an airplane (see Figure 1). In the written component that follows, Frank reflects on his own experiences leaving Cuba and describes the ways in which his photo presents a perspective not discussed in Howard's article:

> Instead of risking my life by coming to the United States by boat, I legally arrived here by plane. This picture is one of the first times I ever flew, and though I did not have a phone to take a picture of my actual first time, every time I see the sky above the clouds, I am transported back to the journey that started it all. While sitting in my passenger seat, nothing really is stopping me from reaching the land across the see. [Howard] discusses how the sea is no longer the true impediment for those trying to leave Guantanamo, instead it [is] the black wires that surround them. […] The black wires that these children discuss in their picture is miles below me, as I freely fly across it. Thus, struggles…mentioned

Figure 1

The photo Frank references



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> in the passage are far past me, I am on a one-way trip to the end of my journey. Instead of having to face the harsh reality of incarceration and the concession of one's hope…I am too quickly (about an hour and a half) taken to my destiny to even delve on these subjects.

Here, Frank presents a perspective about traveling from Cuba to the United States that is different than the one depicted in Howard's article. Specifically, in the first sentence of his entry, he juxtaposes a life-threatening and illegal boat ride with a safe and legal airplane ride. He writes about the ways in which his experiences were markedly different than those in the text, using this journal entry as a space to offer a different reality than the "harsh reality of incarceration" described by Howard. Frank puts his personal experiences in conversation with the published text to present a new perspective of what it can mean to come from Cuba to the United States. Put simply, he engages in knowledge-building.

As a result, Frank comes to a deeper understanding of the text itself. This is evidenced in the remainder of his journal entry. After describing the photo, he continues reflecting on Howard's article alongside his first-hand experiences leaving Cuba, focusing specifically on "the black wires that these children discuss in their pictures." At the beginning of his journal entry, he writes that the black wires are miles below him as he freely enters the United States. As the journal entry continues, he further explores the possible meaning of the "deterrent image of the black wires" and the ways in which the Cuban children seem to "define themselves by their lack of power in the face" of these wires. Here, Frank positions himself outside of these wires, different from the Cuban children unable to freely enter the United States.

However, as he continues writing, there is a noticeable shift in his perspective. That is, rather than continuing to see his experiences as "the antithesis to the struggles of those in Guantanamo Bay," he begins to consider the ways in which his experiences entering the United States, although different than those of the Cuban children about which Howard writes, offer more than "the antithesis." Instead, he recognizes the ways in which his experiences and those of the children are similarly defined by power: the absence of power for the children and the presence of power for himself. He acknowledges his own power in flight compared to the children's lack of power on the water. This is "the antithesis" about which he first writes. However, his understanding of power does not end with a recognition of the power differential. Instead, throughout his writing, Frank continues exploring this concept of power, and ultimately concludes that power – whether it is the presence of power or the absence of power – undergirds and shapes his experience in flight just as it shaped the children's experiences on the water. "Culture permeates every individual within it," Frank writes, and "analogous feelings of power are what ties [Cubans] together." This recognition of a Cuban culture joined together by "analogous feelings of power" illustrates a deepened engagement with our course material. This engagement comes from Frank putting his own experiences in dialogue with those described in the text, the result of which is knowledge-building anchored in one student's particular cultural experiences.

Engendering competence: Recognizing the varied ways in which students can perceive meaning and authenticity, then developing assessments that account for these differences.

This aspect of the framework is rooted in meaningful and student-specific learning, the goal of which is to help students recognize and see value in their own growing competence. Wlodkowski and Ginsberg (1995) discuss this aspect of the framework in terms of authentic assessment, the primary goal of which "is to *engender* competence" (p. 231). This is an important distinction from traditional conceptions of assessment which focus on measuring what students know/do not know. Authentic assessment, on the other hand, aims to foster within students an awareness of their own competence. In this way, authentic assessment offers a vehicle through which students can recognize, make explicit, and value their own learning. It is not something that is done to students; rather, it is something that students participate in and, at times, even lead. In addition, because authentic assessment is rooted in students' awareness of their growing competence, it moves beyond dualistic conceptions of right/wrong. Specifically, it "allow[s] for personal interpretations of 'truth' - that is, linkages between traditional academic perspectives and personal experiences and the generation of valid

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alternative perspectives to conventionally held beliefs" (Wlodkowski & Ginsberg, 1995, p. 237). This move towards plural, diverse understandings aligns with CRT by situating learning and knowledge within students' personal, individualized experiences.

Wlodkowski and Ginsberg (1995) offer several approaches to authentic assessment, one of which is self-assessment. Self-assessment practices, they explain, ask students to take stock of their own understanding so that they might value their learning and who they are as learners. Additionally, because self-assessment can "support and illuminate the learner's authority, strength, and sense of cultural and academic identity" (p. 233), self-assessment offers a valuable way of enacting CRT. Through self-assessment, students can come to the realization that the knowledge they have gained through their cultural experiences is integral to their competence. This realization helps "students to validate their [own] authenticity as learners and as human beings, [which] is especially important for underrepresented students who may feel, at times, like imposters in the culturally isolated…universe of academia" (p. 240). Thus, self-assessment can be an effective avenue for engendering competence in the culturally responsive classroom.

The Visual Snapshot Journal offers one example of how an assignment can utilize self-assessment. Specifically, we see this aspect of the framework in the introduction and conclusion that students write to bookend their journal entries. The introduction is where students introduce the specific text they have chosen for this project and then respond to one of the main themes from our course. The conclusion, on the other hand, is an opportunity for students to reflect on the journal entries that comprise their Visual Snapshot Journal and write about the ways in which the ideas shared in these entries add to, build upon, and/or challenge the perspectives shared in the introduction. As such, the conclusion is where self-assessment occurs. This is because in order to write the conclusion, students must first consider what they wrote in their introductions alongside the content of their journal entries. They must reread their introduction to get a sense of their initial understandings, and then consider how the personal, cultural experiences they spotlight in each journal entry interact with these early perspectives. As they engage in this rereading and reflection process, students are asked to recognize their own learning and growing competence, and the conclusion is where they make this recognition explicit.

Katy's project offers an example of this form of self-assessment. In her introduction, Katy responds to question #2 - *How does rhetoric (visual, written, and/or spoken) empower some voices/perspectives and silence others?* Focusing specifically on what she describes as the "hateful rhetoric directed towards Latinx people," Katy observes that "although this hate has been ever present for decades, President Trump's rhetoric when speaking about Latinx culture and immigrants in the Latinx community has amplified and empowered the voices of xenophobic and racist citizens in the United States, while simultaneously silencing those most impacted by it: members of the Latinx community." Here, in her introduction, Katy writes about the ways in which this hateful rhetoric silences the Latinx community. This is significant to notice because although question #2 invites her to also consider how rhetoric can *empower* voices and perspectives, her attention at this point remains solely on the potential for rhetoric to silence and oppress.

However, Katy's conclusion illustrates a shift in her understanding. That is, instead of focusing only on the "hateful rhetoric directed towards Latinx people," Katy considers the potential for rhetoric to positively impact the Latinx community. She explains that writing the journal entries helped her arrive at this revised understanding:

> This research project allowed me to analyze and interpret the different ways that rhetoric can impact communities. […] It can have tangible effects on real lives and real people, whether they be positive or negative. In my research, I chose to focus on a community that I am very proud to be a part of: the Latinx community. […] Oftentimes, the media and political rhetoric play a huge role in how the Latinx community is portrayed, seen, and even treated here in the United States; many would agree that most coverage of the Latinx community is negative coverage. Because of this, I chose to highlight a more positive side of my community,

> the real side. In my [journal] entries, I decided to combat negative stereotypes and break down misconceptions. From my journal entries, it is easy to see the ways in which the Latinx community are often silenced by the media due to negative rhetoric and ways in which the community can be empowered by positive rhetoric.

Here, in the conclusion, Katy adds to the concept of rhetoric she presented in her introduction. She returns to the initial question she explored in her introduction and then uses the personal, cultural experiences she shared in her journal entries to build upon her initial response. The result is a more robust understanding of rhetoric as well as an explicit recognition of her own growing competence.

Katy's project illustrates the potential for self-assessment to offer a culturally responsive approach to authentic assessment. In authentic assessment, students are not passive observers waiting to be assessed by an authoritative teacher; rather, they are involved agents, active in the assessment of their own learning. We see this active participation in Katy's conclusion when she assesses her own understanding of rhetoric. Equally important, especially in light of our current focus on CRT, is that Katy calls upon her personal, cultural experiences to inform this self-assessment. She reflects on the cultural experiences she wrote about in her journal entries, and then she uses these experiences to revise her initial understandings. From this perspective, not only is Katy practicing self-assessment, but she is doing so from a culturally aware and culturally validating perspective. She is, as Wlodkowski and Ginsberg (1995) describe, validating her own "authority, strength, and sense of cultural…identity" (p. 223).

Conclusion

Throughout this discussion, I have analyzed the potential for the framework to help instructors embrace CRT, promote engagement with and among culturally diverse students, and encourage students to value their own learning. In so doing, I hope to have provided a model for other instructors interested in pedagogical use of the framework. In particular, I could imagine the Visual Snapshot Journal or a rendition of it being incorporated in courses that discuss culture, power, and language. For instance, many Education programs have courses that focus on language, literacy, and culture; Communication programs often offer courses that explore the power and potential of mass media; Pre-law students are often required to take a course in civil discourse. In each of these courses, the Visual Snapshot Journal could offer a way for students to explore culture, power, and language from a discipline-specific stance while still preserving the core components of the motivational framework: explicit attention to cultural diversity, emphasis on personally-relevant choices, valuing of students' prior knowledge, and student assessment of their own learning.

As I look forward to teaching this course again, I can imagine productive adaptations and expansions of this project. For instance, in response to Ladson-Billings (2014) suggestion that we push "students to consider critical perspectives on policies and practices that may have direct impact on their lives and communities, […] such as school choice, school closings, rising incarceration rates, [and] gun laws" (p. 78), a future iteration of this project might begin by asking students to first identify culturally relevant policies or practices impacting their lives. We could then identify various texts that discuss these policies/practices, and I imagine that students would turn to mainstream news outlets (i.e., *The New York Times*) as well as culture-specific sources (i.e., *Hispanic Network: A Latino Business and Employment Magazine*). This means that it is likely that students would work with news articles, Op-eds, or other similar sources for the Visual Snapshot Journal, and although this would be different than the academic texts with which my students worked, this seems like a productive revision. That is, by rooting itself in texts that discuss current events rather than academic texts that are often published months or sometimes years after an event has occurred, the Visual Snapshot Journal could more directly connect to students' in-the-moment lives. If this were to happen, the project would not only differ from student to student, but it would also fluctuate based on events happening at that specific moment in time. Not only would this revision increase the relevance of the project to students' lives, but I can also see it offering a productive pedagogical connection for classes that focus on analyzing current events, including those in Political Science, Sociology, Law, and Communications.

In addition, the multimodal aspect of this project offers cross-disciplinary value, especially for courses that teach students to interrogate the power of visual communication. Students in art history courses, for example, might benefit from a project similar to the

Using the Motivational Framework *continued*

Visual Snapshot Journal in which they analyze and respond to representations of a culture or gender in paintings from a particular time period, perhaps comparing representations across time periods and situating this comparison alongside more contemporary paintings. Similarly, students in an advertising course might complete a version of the Visual Snapshot Journal in which they consider the ways in which a marketing campaign uses images to attract certain populations of consumers, perhaps at the expense or degradation of others. In each of these potential revisions to the Visual Snapshot Journal, students would select a culture, gender, or population with which they identify so that they would be able to use their lived experiences as a means for response and analysis.

As I conclude this discussion, I have offered several ways in which this project could be adapted, and I am hopeful that others reading this article will be motivated to adapt the Visual Snapshot Journal to their particular context. This would be, after all, in line with the goal of the motivational framework: to elicit motivation in the culturally responsive classroom.

Using the Motivational Framework *continued*

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Appendix A. Assignment: Visual Snapshot Journal

This semester, we have been exploring rhetoric in visual and written forms and discussing the ways in which rhetorical representations impact how we understand ourselves and those around us. In this project, you will continue this exploration by creating a Visual Snapshot Journal. Specifically, you will select a specific reading to focus on, one that has a personal connection to your identity or cultural community, and you will use visual and written rhetoric to document your reactions to that reading. That is, rather than responding only through words, you will create a visual snapshot journal that spotlights your reactions. Let's begin by breaking down the title of this project:

- **Visual:** communication through images, photos, colors, drawings, graphics, etc.
- **Snapshot:** a brief, focused impression or reaction
- **Journal:** an honest, personal form of writing

Therefore, in this final project, although you will be incorporating both written and visual rhetoric, you will not be writing a traditional essay. Instead, you will be creating a visual snapshot journal comprised of an introduction, three journal entries, and a conclusion. The purpose of this project is for you to think deeply and critically about the connections between rhetoric, an aspect of your identity or culture, and your personal experiences/perspectives.

To begin, look at the potential research categories, and identify which one(s) relate to some aspect of your identity or culture. ***(Note: If you'd like to explore a research category that is not listed, please let me know!)*** Select one research category that you'd like to focus on for this project, and then look through the suggested readings under that category. You don't need to read all of the readings; instead, begin by reading the abstracts of the readings or skimming through the readings to get a general sense of what each one is about. As you look through the readings, ask yourself, ***"What personal experiences have I had that relate to this category and/or this reading? What do I want to learn more about? Why am I interested in this?"***

Then, select one reading that you want to focus on for this project. ***(You are also welcome to select a reading that is not listed on the sheet, but I need to approve it first.)***

Once you identify that reading, you should read that text in its entirety, and this will be the text you use for the introduction to your Visual Snapshot Journal.

Your introduction should be a 600-word response to the text you have chosen. In this response, you will first give the title and author of the text. Then, you will summarize the main ideas of the text (approximately 150 words) and then write a 450 words response to **one** of the following questions:

1. According to the text, what is the relationship between rhetoric (visual, written, and/or spoken), culture/identity, and power?
2. According to this text, how does rhetoric (visual, written, and/or spoken) empower some voices/perspectives and silence others?
3. According to this text, how can rhetoric (visual, written, and/or spoken) promote social change or activism?

As you respond to **one** of the above questions, be sure to support your response by including direct quotes and/or paraphrases from the text. In other words, you need to point me to the exact parts of the text that have sparked your analysis so that I can clearly see the connections between the text you've read and the introduction you've written.

After you write your introduction, you will create your **three journal entries.** The journal entries will spotlight

Using the Motivational Framework *continued*

your personal responses to a specific passage from the text you analyzed in your introduction. Each entry should include the following:

- A title
- A visual component (a photograph, a drawing, a graphic, etc.)
- A specific passage from the article (cited in MLA format)
- A written component of at least 200 written words that explains the photo and the ways in which this photo connects to the quote you have selected. For instance, does the visual disagree or challenge the quote? Build off of or add to the quote? Present a new perspective that the quote ignores or overlooks?

An example journal entry is posted on Canvas for you.

After you write your introduction and three journal entries, you will write **a conclusion** (at least 200 words) that makes connections between the ideas you discuss in your introduction and your journal entries. Specifically, in your conclusion, you can discuss how your personal journal entries allow us to more fully understand 1) the relationship between rhetoric, culture/identity, and power, 2) the potential for rhetoric to empower voices and silences others, or 3) the potential for rhetoric to promote social change or activism.

Appendix B. Research Categories

1. African/African-American cultures
    a. "Manifestations of Afrocentricity in Rap Music" (PDF)
    b. #StayWoke: The Language and Literacies of the #BlackLivesMatter Movement" (PDF)
    c. "Racist Visual Rhetoric and Images of Trayvon Martin" (link)
    d. "Equal treatment as exclusion: Language, race, and US education policy" (PDF)
    e. "Remnants of Venus: Signifying Black Beauty and Sexuality" (PDF)
2. Asian/Asian-American cultures
    a. *Representations: Doing Asian American Rhetoric* (link)
    b. "Rhetorical Clash Between Chinese and Westerners" (PDF)
    c. "Engaging Nuquanzhuyi: The Making of a Chinese Feminist Rhetoric" (PDF)
    d. "Affective Rhetoric in China's Internet Culture" (link)
    e. Special issue of *Enculturation* on Asian/American rhetorics (there are multiple articles at this link; you can select an article from this list)
3. Hispanic cultures
    a. "Digital Latinx Storytelling: testimonio as Multimodal Resistance" (link)
    b. "Words Hurt: Political rhetoric, emotions/affect, and psychological well-being among Mexican-origin youth" (PDF)

Using the Motivational Framework *continued*

c. "Acceptable Heterogeneity: Brownwashing Rhetoric in President Obama's Address on Immigration" (link)

d. "The Crossing as Constitutional Rhetoric: Balsero Art and Identity from Cuban Refugee Camps and Implications for Cuban-American Relations" (link)

e. "'Para la Mujer': Defining a Chicana Feminist Rhetoric at the Turn of the Century" (PDF)

4. LGBTQ+ cultures

   a. "Until Death Do Us Part: Lesbian Rhetorics of Relational Divorce" (PDF)

   b. "*Transgender**: The Rhetorical Landscape of a Term" (link)

   c. "The Quiet Country Closet: Reconstructing a Discourse for Closeted Rural Experiences" (link)

   d. "Figuring the Feminist Femme" (PDF)

   e. "Laughing at Absence: *Instinct* Magazine and the Hyper-Masculine Gay Future?" (PDF)

   f. "Cracks in the Glass Slipper: Does It Really 'Get Better' for LGBTQ Youth, or Is It Just Another Cinderella Story?" (PDF)

   g. "Let Me Queer My Throat: Queer Rhetorics of Negotation: Marriage Equality and Homonormativity" (link)

5. Religious/Spiritual cultures

   a. "The Rhetoric of Religion" (PDF)

   b. "Talmidae Rhetoricae: Drashing Up Models and Methods for Jewish Rhetorical Studies" (PDF)

   c. "The Attractions of Imperfection: Pope Francis's Undisciplined Rhetoric" (link)

   d. "Iqra: African American Muslim Girls Reading and Writing for Social Change" (PDF)

   e. "Filled with the Spirit: Rhetorical Invention and the Pentacostal Tradition" (PDF)

   f. "Stepping Outside the 'Ladies' Department': Women's Expanding Rhetorical Boundaries" (PDF)

   g. "Buddhism's Pedagogical Contribution to Mindfulness" (PDF)

6. Feminist cultures

   a. "Feminist Rhetorical Practices: In Search of Excellence" (PDF)

   b. "When they go low, we go high: First Lady Michelle Obama's feminist rhetoric of inclusion" (PDF)

   c. "'To Protect and Serve': African American Female Literacies" (PDF)

   d. "'Para la Mujer': Defining a Chicana Feminist Rhetoric at the Turn of the Century" (PDF)

   e. "Comedy as Feminist Rhetoric, Liz Lemon Style" (link)

   f. "Blogging Borders: Transnational Feminist Rhetorics and Global Voices" (link)

Using the Motivational Framework *continued*

7. Multilingual cultures
    a. "Translation as Technology: From Linguistic 'Deficit' to Rhetorical Strength" (link)
    b. "'When I Close My Eyes, I Like To Hear English': English Only and the Discourse of Crisis" (link)
    c. "Multilingual Writing as Rhetorical Attunement" (PDF)
    d. "Writing a Translingual Script: Closed Captions in the English Multilingual Hearing Classroom" (link)
    e. "Principles for Cultivating Rhetorics and Research Studies within Communities" (link)
8. Crafting cultures
    a. "Joie de Fabriquer: The Rhetoricity of Yarn Bombing" (PDF)
    b. "Threads of Feeling: Embroidering Craftivism to Protest the Disappearances and Deaths in the 'War on Drugs' in Mexico (link)
    c. "Crafting a Music Community: Making Music and Musicians in Concert" (link)
    d. "Crafting Change: Practicing Activism in Contemporary Australia" (link)
    e. "*Undo It Yourself*: Challenging Normalizing Discourses of *Pinterest*? Nailed It!" (link)

Note: If you'd like to explore a research category that is not listed, please let me know!

BOOK REVIEWS

James M. Lang, *Distracted: Why Students Can't Focus and What You Can Do About It* , Basic Books, 2020.

—Aleel K. Grennan and Daron C. Barnard

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Distraction surrounds us at all times. We see its pull on our students as the assignment or activity that they should be focused on does not seem as important as their phone, computer, or talking with a classmate. We see it in our own lives as distraction pulls at us as we design a learning activity, grade papers, or even write a book review. In our current society, it seems easy to place the blame on the proliferation of digital devices with their promise of instant gratification. Although devices are certainly a source, continual distraction is not a new problem. The concern that the latest technology is diminishing our attention joins the company of similar concerns when other technologies were introduced - radio, television and video games - even coffeehouses were blamed as a source of distraction when they were first introduced in Europe. Students have always been challenged by the need to maintain focus while distraction draws their attention away, promising something new and shiny. Clearly with all the possible sources of distraction, a learning experience might easily be derailed as students fail to hold their attention to the task at hand.

Why is it a problem to keep students' attention? In this outstanding book, James Lang approaches this problem head-on, delving into a wide range of research investigating different aspects of distraction and attention from both current and classical research. He discusses how distraction comes from both internal and external sources, laying the groundwork for his answer to the key question: what can you do to help your students overcome distraction? Lang interviewed numerous educators about their approaches to combat student distraction in the classroom and ties these vignettes to the concepts presented in each chapter. The introduction to the book moves the discussion from the idea that we are fighting distraction to a focus on capturing our students' attention. He provides three main principles that form the basis of the book: that attention is an achievement, that attention remains achievable, and if we want to achieve attention in the classroom we must cultivate it deliberately. His exploration of these principles forms the remainder of the book. To do this the book is divided into two parts that investigate the nature of distraction and then provides modern solutions.

In the first part, Lang explores the history of distraction (spoiler: distraction didn't arrive with the iPhone, or even with the advent of the coffeehouse), examines distraction as it occurs in the classroom, and then discusses the debate surrounding banning tech in the classroom. In the chapter that discusses tech in the classroom, Lang provides a summary of the arguments for and against allowing students to use electronic devices in class. Several different example course policies covering each extreme, and a context-specific compromise is discussed (a full-length example can be found in the book's Appendix). Included in the debate are both student and faculty views on tech in the classroom and how these views have evolved over time. This is concluded with a discussion on how to present and sustain the classroom policy that one decides to use.

In the longer, second part of the book, Lang explores various practices of attention. In this section he moves away from defining the problem of distraction to offering possible solutions to gain and then support students' attention. Each chapter addresses a way in which the actions of the professor can have a profound effect on

Distracted *continued*

the attention of their students. Ideas and suggestions to gain and maintain attention are provided, ranging from the level of course design to day-to-day classroom management. Lessons are grounded in examples from Lang's wide-ranging research on the topic, including the experiences of professors as well as lessons drawn from both education and psychology research. At the end of each of these chapters he provides a Quick Take, a bulleted list of main points (see practices below), followed by a conclusion section in which the lessons of the chapter are put into a larger context.

With six chapters devoted to Practices of Attention, readers are sure to find more than one approach that fits their style, and will be useful in the classroom. There are too many lessons to list here, instead we highlight three of the practices:

- Build a learning community. Here Lang focuses on the social component of attention. He stresses the positive effect of simply getting to know your students and their names. You are more likely to gain and retain their attention if they know you care enough to learn their names. Building this community can also involve making use of the physical space in your classroom. For example, something as simple as rearranging the classroom seats or the professor moving throughout the classroom to break the invisible barrier between professor and students can have significant effects on students' attention.

- Curiosity to capture and retain attention. Lang explores the power of using questions, problems, and stories to promote student attention. He suggests initially capturing attention through curiosity and retaining it through introducing transitions in the lecture to break-up content.

- Signature attention activities. How do we hold student attention? One suggestion of Lang's is to create a toolbox of signature attention activities. Learn to "read the room" and the ebb and flow of your classroom, and use a signature activity to reel students back in when their attention starts to wane. Lang distinguishes three broad categories: focusing, creating, or connecting. The activities you choose to add to your toolkit should be ones that suit your teaching style, though he cautions the overuse of any one activity, as it will just become familiar and lose its purpose as an attention gaining activity. Using too many can also have the unintended effect of distracting from the material being taught.

Lang finished writing this book just as the world was entering a pandemic lockdown, and educators everywhere were trying to determine how to transition face-to-face learning to a remote learning model. While the topic of the book seemed particularly pertinent to the difficulties presented by online learning, the lessons provided transcend any one model or mode of teaching.

This is a book to pick up and reread before each semester while planning syllabi. The ideas and practices discussed help structure the ways in which one can design courses to best hold student attention. At the same time, it is a book to pick up during the semester, to remind ourselves of the things that we can do to intentionally cultivate the attention of students. In our classrooms we have found some of the simple techniques he discusses such as starting classes with a "question of the day" or making the effort to make real-world connections to the course material have a large impact on capturing student attention. With the limited time a professor can devote to professional development, this is a book that you will want to read, and then keep close at hand to go back to again and again.

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