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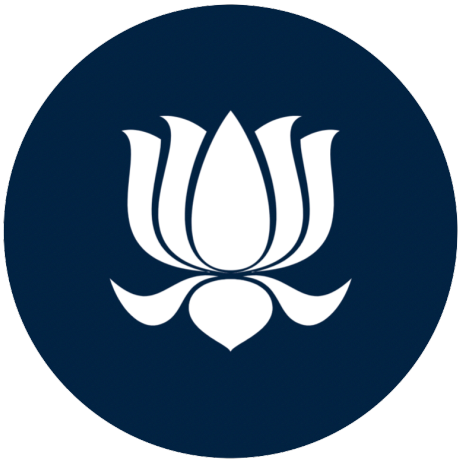

SYSTEMATICREFLECTIONS

A PEDAGOGICAL JOURNAL FROM THE CENTER FOR TEACHING AND INNOVATION AT CCSU

Kristine Larsen and Christina Robinson, Editors

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It is with great excitement, an optimistic eye to the future, and a deep appreciation for the foundation that was provided by those who came before us, that we present ***Systematic Reflections*** – the peer-reviewed journal sponsored by the Center for Teaching Innovation. The Center for Teaching Innovation, founded in January 2021 as a unified structure for faculty and pedagogical development, believes strongly that we must challenge our established modes of education and evolve if we are to effectively serve the needs of our students and all of the university's stakeholders.

In reflecting on our experiences in 2020 it is easy to recognize that the wisdom of Frodo and Gandalf has never rang truer than it does today.

"I wish it need not have happened in my time," said Frodo.
"So do I," said Gandalf, "and so do all who live to see such times. But that is not for them to decide. All we have to decide is what to do with the time that is given us."

The thought-provoking papers that follow provide the careful reader with valuable insights that echo this wisdom. These papers are reflective, thoughtful pieces that strive to provide their readers with lessons that can be used to connect meaningfully with 21st Century learners across multiple modalities. It should be noted that we owe an enormous debt of gratitude to our authors, who began their work and agreed to contribute to this project well-before we knew of COVID-19's existence and the significant changes it would bring to our classrooms and our lived experience. Without their persistence and dedication this project would not have come to completion, and the valuable lessons offered by our contributors would have been lost from our collective knowledge.

As we prepare for a post-COVID-19 environment we are acutely aware that we must find a way to connect with students who are significantly different than those who left campus on March 12, 2020. In future volumes we hope to provide our readers with insights and best practices that can be referenced as we embark on our "new normal." Finally, we would be remiss if we failed to thank to the talented Amy Gagnon, who worked tirelessly to support this effort and ensure that the manuscripts included were shared in a way that authentically honored the significant creative and scholarly efforts of each author.

Wishing you each a safe, healthy, and engaging 2021.
Kristine Larsen and Christina Robinson

A Responsibility Too Profound to Fail

Leona Konieczny

How should we teach end-of-life care to beginning nursing students? During their first year of nursing studies, sophomore students (who are mostly around twenty years of age) are focused on providing nursing care, treating illness, and maintaining or restoring health. They anxiously await the joy of seeing a baby born in their junior year. They are already sensing the momentous transition when independent life emerges.

But first, there is caring for older adults in long-term care in the sophomore year. In a time when many families may not live together or near each other, almost none of the students have experienced death, at least in the time before COVID-19. In long-term care, they are caring for those individuals with chronic illnesses. Most of the residents are the "old-old," eight-five years and older. It is not unusual for a student to care for a resident who is 101. The oldest resident I have cared for with students was 106. Usually, at least one resident will be at the end of life and die during the clinical rotation in nursing. As an educator in gerontological nursing, I have the responsibility to teach about end-of-life care. There is an intense need to provide these students with preparation for the nursing care of the dying individual. These students are expected to learn and apply knowledge about death, an event that, for most students, is unimaginable. Although the death may be expected, it is usually a situation filled with emotion and very overwhelming to students. My responsibility is to educate beyond the physical, direct care to the emotional, personal relationship with the older adult and their support person(s). My goal is to educate students that the transition as life leaves is just as momentous as that when life enters. I continue to try, and not fail, to convey the privilege of providing comfort at the end of life.

Burger and Starbird (2012) write about the elements of effective thinking, which are: understand deeply, make mistakes, raise questions, follow the flow of ideas, and change. The authors advocate allowing yourself to fail nine times so the tenth time will result in success. The permission to fail gives the person the freedom to not be correct or perfect on the first attempt. While I have not used this exact number of trials with students, I do tell them to expect that their first expe-

rience with death may make them reflect about how they could have done or said things differently. Similarly, I have given myself permission to fail pedagogically as well.

I have used different strategies in addition to direct teaching in class. For example, I have assigned a written paper on end-of-life care. The assignment met the cognitive area but not the affective area. One semester, there was an assignment for each student to post in the discussion board a peer-reviewed nursing journal article on end-of-life care published within the past five years. The posts could not be duplicated in content. The intent was to provide students with robust, reliable, and timely resources. This assignment did not capture the students' interest nor meet my educational goal. However, the failure of the intent of the assignment provided me with the knowledge that students were not familiar with using the library databases to access information. I modified the content of the next class to include use of reputable sources and demonstrated the process of conducting a search. In retrospect, the discussion board assignment was not a total failure but a successful teaching opportunity.

In the past, I used simulation in the laboratory on campus. It was more successful in getting to the affective domain, in addition to the cognitive and psychomotor areas. It was also more effective when a student worker played the role of the family member of the dying person. It was a less effective scenario when the student worker didn't come as scheduled. I learned the need to have someone in reserve for on-campus simulation. The debriefing after the simulation was an opportunity to reflect, raise questions, and make recommendations for change.
I have also used storytelling, including personal reflection from the deaths of my parents and my years as a nurse. This is effective with many, but not all students appreciate stories. My newest teaching strategy is using virtual reality gerontology patients. One of these patients is at end of life. Students take as much time as they need to communicate, educate, and empathize with the patient in the virtual world.

My understanding of the complexity of teaching this care continues to evolve. After the virtual assignment and end-of-life class for the 2019 spring semester, a student came to tell me how emotionally difficult the class was. The student then shared the story about the death of their father. We discussed the physical and emotional toll on direct care givers. We discussed how the student's life experi-

ence might strengthen the clinical experience. We discussed the unique life and death of an individual. I believe that with that student, I did not fail.

Reference

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Leona Konieczny, DNP, MPH, RN-BC, CNE is Associate Professor Emerita. Dr. Konieczny has more than 45 years professional nursing experience with 30 years in higher education. She has educated students in pre-licensure, RN to BSN, and MSN programs. She was instrumental in developing the graduate program in Hospice & Palliative Care Nursing at CCSU and achieving AACN accreditation. Dr. Konieczny is published in nursing and education journals as well as presenting nationally and internationally. Her credentials include Certified Nurse Educator and Gerontological Nursing certification. Her travels with students and independently have taken her to six continents.

Discussion on Racial Privilege and Oppression

Yvonne Patterson
Timothy Scott

Introduction

Racism is not an anomaly in U.S. society but rather the result of an underlying presumption of white supremacy that is foundational to the cultural, political, and economic structures of the United States. As the often-used slogan goes, "the system was never broken. It was built this way." (Martin, 2020). Educators can play a pivotal role in the disruption and dismantling of this culture of white supremacy. With these understandings in mind, a collaborative activity was developed to engage social work students in critical conversations around racial privilege and oppression.

The National Association of Social Workers (NASW) and the Council on Social Work Education (CSWE), the governing bodies of the social work profession, places social and economic justice as a priority of the social work profession. According to the NASW's Code of Ethics (2019), social work is a profession that was established for the purposes of social change by eliminating "discrimination, oppression, poverty and other forms of injustice" (para.2). In the academy, social work departments are accredited according to specific requirements, including "the global interconnections of oppression [and]… strategies designed to eliminate oppressive structural barriers" (CSWE, 2015, p. 7). As a core competency of social work education, the CSWE requires aspiring social workers to

> understand the global interconnections of oppression and human rights violations, and… understand strategies designed to eliminate oppressive structural barriers to ensure that social goods, rights, and responsibilities are distributed equitably and that civil, political, environmental, economic, social, and cultural human rights are protected (2015, p. 7).

According to the CSWE (2017), over 50% of social work baccalaureate students enrolled in accredited programs across the nation identify as white females under the age of twenty-five. Alternatively, although men represent a small minority in the social work profession, 85% of them self-identify as White (CSWE, 2017). Approximately 60% of students who graduated in the 2016-2017 acade-

mic year identified as White females and were aged 20 - 24 (CSWE, 2017). Since the mission and values of the social work profession prioritize social and economic justice, social work students must be prepared to collaborate with diverse populations in a variety of settings, particularly with members of historically "under-represented" or oppressed groups. Therefore, it is vital for social work educators to expose students to the structural dynamics of power and oppression as related to the intersectional nature of micro, mezzo, and macro level social work practice (NASW, 2018).

The Activity

As the classroom is a microcosm of U.S. society, social work students have not escaped being enculturated by a society that has deeply racist roots. Much like the larger climate in our society, discussions about race in the classroom continue to be a contentious and isolating experience. Consequently, students and professors alike often avoid critical conversations about race, or cast a superficial gaze on the histories, lived experiences, and perspectives of Black and Brown people, while reproducing narratives that are disproportionately constructed from White perspectives. Thus, counter narratives from the perspective of oppressed racialized groups that critically examine how racism disadvantages Black and Brown people to the advantage of White people are too often marginalized in our society and social work courses.

With this in mind, a classroom exercise titled Discussion on Racial Privilege and Oppression was developed to help students in the social work course Human Behavior in the Social Environment navigate and engage in substantive conversations about race that explore critical dimensions and dynamics of racism in the United States. For the purposes of this exercise white supremacy was explored in relation to privilege and oppression. We understand white supremacy to be a social construct (Moses, 2004) that is deeply embedded and foundational to the cultural, political, and economic structures of the United States, and constituted by anti-Indigenous, anti-Black, anti-Latino and anti-Asian subframes (Feagin, 2013). It "affirms the superiority of White people in every possible way including intelligence, work habits, religion, morals, civilization, language and appearance," perpetuated by "entrenched racist narratives, stereotypes, images, biases and emotions that altogether construct a powerful belief system that rationalizes systems of racial violence and oppression" (Keisch & Scott, 2016, p. 5).

The exercise was formulated with three best practices for student engagement in mind: including student-faculty contact, cooperation among students, as well as critically engaged and collaborative learning (Smith, et al., 2005). Additionally, this activity served as a test case for how the social work department can more actively collaborate in developing and applying interdisciplinary knowledge concerning power and oppression across the department's curriculum. In doing so, we seek to deepen students' understanding of the profession's ecological perspective for the purposes of informing all levels of social work practice, in accordance with the profession's ethics and values. This activity was subsequently replicated in a social work policy course instructed by Dr. Rojas in collaboration with Dr. Scott.

Activity Description

For this activity two student volunteers were selected to act as moderators. The moderators had the responsibility of facilitating discussions between their classroom peers and the two social work faculty involved in the activity – Dr. Yvonne Patterson (course instructor) and Dr. Timothy Scott. Prior to the activity, students were assigned two chapters from the book White Fragility – Why It's So Hard for White People to Talk about Racism, written by sociologist Robin Diangelo. Students had the task of formulating questions for discussions ahead of time and were encouraged to ask these questions during the discussions. On the day of the activity, if students did not feel ready to ask their question, they were given an opportunity to submit their questions into a confidential bowl. After introductions, the moderators began the conversation by posing questions based on their readings and thereafter drew questions from the bowl during the discussion.

According to Corso et al. (2013), student engagement includes three interrelated dimensions - engaged in thought, engaged in feeling and engaged in action. Smith et al. (2005) eloquently note, "the real challenge in college teaching is not covering the material for the students; it's uncovering the material with the students" (p.2). This was one of the major goals of this activity. The National Survey of Student Engagement (NSSE) identifies four themes with their accompanying indicators as "high impact" practices for student engagement. Two themes were applied in constructing this activity - Learning with Peers (Indicators: Cooperative and Collaborative Learning) and Experiences with Faculty (Indicator: Student-Faculty Interaction). In this activity, students were able to take the lead in

not only setting up the discussion but also in controlling what was being discussed (2019).

Their integral involvement allowed for a deeper and more critical understanding of the topic. Students also had access to faculty who were experts in the area who were able to authentically model how to reflect and share one's experiences, while showing empathy, and sitting through discomfort. According to Bandura's Social Learning Theory, vicarious/observational learning is key in helping students gain self-efficacy (Hoover, et al., 2012). In this activity students were given the opportunity to see and model essential skills.

Reflections

When engaging in difficult conversations about power and oppression, it is essential for social justice educators to structure and facilitate learning processes that cultivate self-awareness and candor, while also encouraging participants to listen – and constructively respond – to differing viewpoints and feelings (Adams et al., 2007). Adams et al. (2007) go on to emphasize, "humility about continuing to learn about one's own social group memberships" and "one's access to privilege..." are essential dual processes when teaching and learning for social justice (p. 91). Therefore, when determining the readiness of social justice educators, "[t]he first task is to assess the personal resources facilitators bring to the task" since "the best teaching flows from congruity in the identity and integrity of the facilitator… in essence, we teach who we are" (Adams et al., 2007, p. 90). In doing so, students benefit when educators utilize and model examples from their own lives that correspond with essential social justice concepts and values (Adams et al., 2007).

Observations: Dr. Scott

An example of this was my response to a student question pertaining to self-awareness and white fragility. During the discussion, I recounted my personal experiences in becoming aware of how I actively and passively advance my own white privilege, and thus perpetuate white supremacy. While doing so, I disclosed that many years back I would hijack conversations about race by positioning social class above racism due to my own white working-class background. As part of the class conversation concerning self-awareness and how white people can begin to disrupt white supremacy, I started by emphasizing that it is impossible to be socialized within the U.S and escape internalizing explicit and implicit racist beliefs, narratives, and stereotypes. I went on to stress that ending white

supremacy is a responsibility that largely falls on white people. Therefore, we begin by disrupting it in our daily lives, especially as social workers, by engaging in self-reflective practices that enable us to be critically aware of our own white privilege and how we often enact it unconsciously and reflexively. I went on to disclose that while I have done a significant amount of anti-racist work on a personal level, I still experience implicit racist thoughts and feelings from time to time in the form of racial stereotyping, requiring me to internally acknowledge it and to reflect on what triggered it for me. This action enables me to better understand what it's about, and not enact it. Students were given examples.

OBSERVATIONS: DR. PATTERSON

There were several observations that I made either during or after the activity which affirmed my belief that it is important to continue to have these conversations. For instance, during the conversation, students were very quiet and preferred the use of the confidential bowl. The students' apprehension in articulating their question affirmed my perception of their discomfort with the topic. Questions that were asked of me were related to my experiences of racism as a woman of African descent. I was asked to recount specific occasions where I felt as though I had experienced individually-based racist acts.

After the discussion, when I reviewed the unanswered questions in the confidential bowl, I realized that more questions were directed toward Dr. Scott than I. This may have been a result of many students having taken other courses with me in the department, as opposed to Dr. Scott, who is a more recently hired faculty in the department. However, it is my perception that the students seemed eager to learn more about his experiences of and ways in which he operationalized racial privilege in our society.

As mentioned, this topic is rarely explored during critical discussions of race in the classroom. There were also two questions that remained unanswered in the bowl that allowed for deeper thought into student's educational needs around the topic. These questions were - Is there such a thing as reverse racism and whether it was appropriate to celebrate Black History Month. On the occasions when discussions around race have happened during my career in the classroom setting, I have frequently been asked these questions. This suggests that these questions, though addressed often in different settings, remain current and relevant to students.

Summary/Conclusion

This collaborative activity, Discussion on Racial Privilege and Oppression, was intended to cultivate critical consciousness for students at the micro, mezzo, and macro levels, and serves as a test case for how social work faculty can more actively collaborate in developing and applying anti-oppressive curriculum and critical pedagogical practices. The primary purpose of this activity (and others to follow) was to enable faculty to more explicitly engage in critical classroom conversations that critique power imbalances in our society, in particular white supremacy and how it organizes our society in a way that privileges one group, while disadvantaging others. This activity aligned well to best practices and supports CSWE's mandate of preparing students to engage difference and diversity in practice. It also allowed students to observe and model skills that are essential to their personal and professional development.

The experiences of both faculty members support the need to continue discussions focused on racial privilege and oppression. Recommendations for future use of this activity are to implement the activity over a two-hour block of time. This would allow faculty to review the assigned reading more deeply with students in preparation for the discussion and allow time for the course instructor check-in with students in follow-up discussions. In doing so, we seek to deepen students' understandings of the social work profession's ecological perspective for the purposes of informing all levels of social work practice, in accordance with the profession's ethics and values.

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Dr. Yvonne Patterson is currently an Assistant Professor in the Social Work Department at Central Connecticut State University. She has worked as an educator since 2008. Most recently Dr. Patterson has most recently been honored as a finalist for the 2019 Excellence in Teaching Award at CCSU. Dr. Patterson earned her PhD from the University of Connecticut in 2014. The title of her dissertation work is African Descent Women: Ethnicity and Condom Use. She continues to publish in the area of public health, in particular, HIV/AIDS and African descent populations. Her research interest includes culture, and culturally appropriate services.

Dr Timothy Scott is a critical educator and former clinical social worker who was also a grassroots organizer for nearly two decades. He has a Master's Degree in Social Work from the University of Utah and a Doctorate of Social Justice Education with a focus in Cultural Political Economy from the University of Massachusetts Amherst.

Understanding the economics of social issues through service-learning, A case study from ECON321 Fall2019

Carolyne Soper

Introduction

The Economics of Social Issues (ECON 321) serves as an elective course for the Bachelor of Arts in Economics degree and is also designated as an approved elective for the Community Engagement minor. The course description states: Introduction to major social policy debates from an economic perspective. Tools of economic analysis will be used to examine current social issues. Topics include pollution problems, the economics of crime and its prevention, the economics of education, poverty, and discrimination, the economics of professional sports, social security and Medicare. The prerequisite for the course is three credits in economics or permission of the instructor. When the course ran in the fall 2019 semester, a different method of assessment was used to measure student attainment of the learning outcomes. The breadth of topics covered in this course enable the students to select one topic to explore further based on their particular interests and/or future career plans. Students were allowed to identify a nonprofit to work with based on their interests. Students participated in a service-learning project as their final assessment in the course. The Carnegie Foundation defines community engagement as a "collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually-beneficial exchange of knowledge and resources in a context of partnership and reciprocity (Carnegie Foundation for the Advancement of Teaching, 2006)." In the fall of 2019, this course was executed for the first time with the service-learning project incorporated.

The projects completed by the students in ECON 321 during the fall 2019 semester exemplify a collaboration between CCSU students and community-based organizations. The purpose of this case study is to assess the effectiveness of the project and propose strategies to improve the community engagement component of the course in future offerings.

Literature Review

Since our initial designation as a Carnegie Community Engaged Institution, service-learning and community-engaged course offerings at CCSU have grown substantially. These courses integrate service through projects, on-site volunteer-hours, capstone projects, and other applied learning exercises with faculty guidance to encourage civic engagement and strengthen community relationships. Higher education is undergoing a shift from content-based to competencies-based curriculum, and there's been a renewed focus on students' mastery beyond the established subject matter. Experiential learning methods are implemented across disciplines to enhance student comprehension and engagement. The importance of assessing community engagement activities and their related learning outcomes has been widely discussed in the existing literature. Focus groups, journal entries, surveys, and critiques of videotaped exchanges have proven to be reliable methods for assessing students' learning (Cooks and Scharrer 2006). Linking reflections communicated as presentations or essays to course objectives that are then further evaluated with a rubric is a methodology proposed by Bringle and Hatcher (1996) and Ash, Clayton, and Atkinson (2005). It was also suggested that student surveys and semi-structured discussions upon completion of the project could provide valuable information for future program improvements (George & Shams, 2007).

While evaluating the attainment of student learning as a result of the service-learning project is significant, George and Shams also determined that it is equally important to evaluate the success of the project from the perspective of the community partner. This particular finding is one that could provide beneficial information going forward in ECON 321. McGoldrick (1998) incorporated an optional service-learning project into a Women and Gender Issues in Economics course and found that most students opted to pursue the project further and that they (and their organizations) reported a positive experience. Moreover, they expressed an interest in continuing the collaboration going forward. To draw attention to the challenges, Christensen (2017) identified many of the obstacles of service-learning programs, particularly for smaller organizations, including the time commitment needed to train and supervise students and the short-term nature of the projects can make the results less impactful. While the community members' feedback is generally solicited in an informal approach, there is research to suggest that a more structured method to evaluate the project from all parties is beneficial (Rhoads, 1997).

THE SERVICE-LEARNING PROJECT

In the Fall of 2019, a service-learning project was incorporated into the semester plan for Economics of Social Issues (ECON 321). Rather than conduct traditional research projects, students participated in a service-based activity (30% of their overall grade).

Students were given the following brief for the project:
This semester you will be participating in a service-learning project. You will work with a local nonprofit organization to resolve an issue they are currently facing using economic theory/analysis. The findings and recommendations will be presented in both a written form, and a presentation to the respective organization and shared with your classmates.

> Step 1: Research local organizations that you have an interest in working with. Narrow it down to three options. Familiarize yourself with the organization's mission, history and area(s) of service.
> Step 2: Establish a contact at the organization.
> Step 3: Reach out to the contact (I will assist if necessary) and introduce yourself and the project. Determine the current issue/problem they are facing. (sample letter/script in BB)
> Step 4: Work with contact to determine the project timeline.
> Step 5: Use economic theory to devise a solution to the organization's issue/problem.
> Step 6: Present findings to contact at organization and class in a final presentation.

In addition, the following details on the final assessment were also provided:

> The final paper/presentation should include the following:
> - Overview of the steps you took with the organization
> - Challenges/obstacles you faced
> - How was the organization/individual you worked with?
> - How did the solution come about?
> - What type of economic analysis did you use to develop the solution? (resource allocation, cost/benefit analysis, forecasting etc.)
> - What did you learn from this project?
> - Would you work with this organization again?

To better understand the connections CCSU has with the local community and opportunities that might exist, the Coordinator for Community Engagement was invited to share resources with the class. In individual meetings with each student, we narrowed down the focus/sector they would like to work with (i.e., youth concerns, food insecurity, veterans, environmental problems, animal rights, educational issues). Students were then advised to compile a short-list of three to five organizations. Students attempted to contact the appropriate representative through an email and/or phone call (scripts/draft of emails were provided for guides - Appendix 1). The main challenge students were faced with was establishing this initial contact with the organization and then gaining the willingness to complete the project. This also proved to be the most time-consuming step. Once the students solidified the relationship, the projects were able to proceed.

Having established a relationship with their community partner, students were expected to meet with them either in person or via email to obtain background information on the organization. As has been shown in the literature, the community partner organizations typically had limited time and wanted the interactions to be as mutually productive as possible. Those community partners that agreed to work with students did so with clear guidelines and expectations in place. The issues they were experiencing ranged from volunteer recruiting, endowment funding, outreach events, sales forecasting and resource allocation. Ultimately, they would identify an economic issue the organization was facing. After exploring economic theories, the student would then provide evidence-based solutions to issues. Thus, service-learning provided an active approach to learning the course content.

The students gain knowledge from this partnership by seeing how economic principles learned in ECON 321 and prior coursework can be put into practice to solve real organizational issues. The community partner benefits by receiving potential solutions or alternative perspectives on a problem they have been facing. After assessing the project's outcomes from fall 2019, it was determined that the students benefited from this partnership by seeing how economic principles can be put into practice to solve real organizational issues. The community partner also had the opportunity to provide informal feedback on the proposed solution directly to the student.

Specific problems the students worked on with their community partner included:

- Creating and distributing a survey to a business networking organization to measure member satisfaction.
- Overcoming challenges and workarounds to create a reoccurring donation program for a town political campaign.
- Evaluating financing options for a vehicle used for university community engagement events.
- Determining ways to increase tuition for youth sports clubs in order to cover fixed costs, while maintaining membership.
- Developing a survey to measure employee satisfaction at a local rehabilitation center.
- Devising a time efficient training plan and scheduling database for volunteers.
- Handling logistical issues for a book drive regarding pick-up and delivery of donations.
- Working with local animal shelters to increase local awareness through social media presence.

Student feedback from course evaluations included the following statements:

"The SLP project also allowed helped me moved past my comfort zone and apply what I learned throughout the course [sic]."
"I realized that the service-learning project wasn't so bad. It was actually a lot of fun!"

"I would definitely work with organization again; they are a bunch of good people that want to give back."

"I was happy to have my first experiences of contacting an outside company at CCSU, where I was able to learn about the benefits and significance of urban development. After trial and error in finding someone to work with, I realized how difficult finding the right communications can actually be. Learning about nonprofit organizations, I discovered how they generate enough funds to sustain their cause and give back to the community."

While the overall project was a success, the following challenges did exist:

- Students had difficulty establishing community partners to work with.
- Community partners had a multitude of issues that were beyond the scope of the project.
- Students did not receive consistent feedback regarding their contributions from the community partners.
- Community partners were not involved in the course assessment component.

Improvements of the Service-Learning Project

To expand the research on this course initiative and ultimately make the community engagement project more mutually impactful, specific areas to address the challenges have been identified. In future offerings of the course, the plan would be to request formal feedback from the community partners on their involvement with our students and the overall project. This type of assessment has been discussed in length by George & Shams (2007). The Economics of Social Issues (ECON 321) course is running in the fall of 2021, and the plan is to again have students participate in the service-learning project. Prior to the start of the fall 2021 semester, I will meet with the Office of Institutional Research and Assessment (OIRA) to discuss best practices and how to incorporate the community partner's feedback with the assessment of student learning outcomes. I also plan to solicit suggestions from the Community Engagement Committee on successful endeavors in other departments/courses.

Based on the input from colleagues, appropriate questions to pose to the community partner after the completion of the project will be formulated. The students enrolled in ECON 321 in the fall of 2021 will be informed (at the start of the project) that these questions will be asked of their community partners and that the partner's feedback will be incorporated into their course grade. A JotForm will then be created and distributed to the community partners upon completion of the projects. Responses/data will be compiled from the JotForm submissions. A qualitative and quantitative analysis will be conducted to determine key findings. Dependent on findings, further ways to modify the service-learning project will be determined.

I also plan to enhance the course through a grant awarded by the Faculty Senate Student Engagement Committee; the purpose of these grant funds is to host an initial (breakfast or lunch) meeting for local nonprofits to speak to the class regarding their organizations and discuss the importance of community involvement. The second event would be at the completion of the semester to thank those community partners who participate in the student projects. Students would also be able to share their findings with all attendees. Both of these events will occur in the Fall 2021 semester. After assessing the project's outcomes from fall 2019, it was determined that these types of social interactions between the students/University and community partners would likely facilitate the establishment of additional, mutually valuable relationships.

Conclusion

CCSU has been classified as a Carnegie Community Engagement Institution by the Carnegie Foundation for the Advancement of Teaching. This designation is one that our entire community should be proud of and strive to support. The benefits of a community-engaged student population go beyond the classroom. The incorporation of a service-learning project into the Economics of Social Issues course in the fall of 2019 proved to be a valuable exercise for the students. They gained a perspective on how the economic principles reviewed in the course could be utilized in the real life, operational, and nonprofit environment. These organizations struggle with unique challenges including financial restraints. They are also taxed with maximizing their limited resources to meet community demands. The service-learning project was intended to provide a mutually beneficial outcome. Going forward, feedback from the community partner would be useful to assess the impact of the project. This case study can serve as a guideline for future courses at CCSU to highlight best practices and areas of improvement. A well-formulated reflection on the service-learning project deployed in ECON 321 and a plan for future sections would benefit the students, community partners and support CCSU's designation as a Carnegie Community Engaged Institution.

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APPENDIX 1: EXAMPLE LETTER TO ORGANIZATION

Good afternoon (appropriate title),

I am currently a student at Central Connecticut State University taking a course on social issues in economics with Dr. Carolyne Soper. For our course project I have been asked to select a nonprofit organization to work with. I am familiar with your organization's mission and am hopeful I could provide some assistance. The goal is to find a reasonable solution, using economic principles, to an issue your organization is currently facing.

The time commitment on your end would be minimal. We would need to have a brief discussion to establish the issue and cover some basic background information. I would then report back on my findings and suggestions for next steps.

My professor Dr. Carolyne Soper can also help clarify the project requirements. She can be reached at soperc@ccsu.edu.

In order to plan my semester accordingly, I ask that you kindly respond to my inquiry by (generally one week from email). I appreciate your time and hope we have the opportunity to work together.

Regards,

DR. CAROLYNE SOPER joined the Economics Department at Central Connecticut State University in August 2017. Dr Soper's teaching areas/research interests include financial markets, monetary policy and international economics. Her recent work on stock market volatility and economic policy has been published in the Journal of Business and Economic Studies, International Review of Financial Analysis and International Advances in Economic Research. Carolyne serves as the internship coordinator for the Economics Department.

Experiential and Active Learning: Graduate Psychology Student's Perspective and Reflection

Nicole Brown, Briana N. Howard, Kevin M. Rodriguez, and Nghi D. Thai

Higher education's approach to learning is typically teacher-centered or lecture-based (Cerbin, 2018; Stains et al., 2018). A growing body of research, though, suggests that experiential learning may increase academic performance (Zelechoski, Riggs Romaine, & Wolbranksy, 2017). According to experiential learning theory, experience and reflection is an essential part of learning (Kolb & Kolb, 2005). Moreover, active learning (e.g., discussions and activities) may increase student performance compared to lecture-based learning (Freeman et al., 2014). Thus, an experiential and active learning strategy to teaching may be an effective tool for academic success.

Three graduate students in the psychology master's program at Central Connecticut State University (CCSU) took part in the Prevention and Community-Based Research course in Spring 2019. This course provided students with a mix of experiential and active learning teaching strategies. Students embarked on a unique research experience, not typically offered in other classrooms. These students had the opportunity to design and carry out a collaborative and innovative community-based participatory research project. In addition to class discussions, two learning reflection assignments were required to ensure that students were reflecting on how their experiences informed their learning. Throughout the course, in-class time consisted mainly of discussions and class-based activities.

This course embraces a paradigm shift towards collaborative and participatory community research. The community-university partnership forged through this innovative process requires the development of a mutually beneficial relationship based on trust and respect (Baker, Homan, Schonhoff, & Kreuter, 1999). Lines of communication remained open throughout the research process allowing the community and university to share their resources with one another. Such research projects are also unique in that the research collaboration is based on the needs of the community, who share accountability for the partnership's success with the university (Harper et al., 2004).

The graduate students helped develop and maintain a partnership with New Britain's East Side Community Center that embraced these tenets of the community-university partnership. This was a novel experience for the graduate students, who had not previously taken part in a community research project. The students learned how to balance personal research interests with the needs of the community and developed research questions and methods accordingly, alongside leaders from the East Side Community Center and with local knowledge garnered from the teenagers at the Center.

Additionally, the research project allowed students to gain experience with research techniques and methodology they hadn't previously utilized, such as focus groups and the grounded theory approach. Many research courses rely on quantitative measures and analyses, but this course broadened students' skill sets as researchers by exposing them to techniques for the collection and analysis of qualitative data. By taking part in this project, the students were able to become more well-rounded researchers. Moreover, the practice of active learning enhanced the application of core concepts to the community research project. Ultimately, these core concepts and skills provide relevant job experience for those truly interested in community psychology. The mode of teaching also introduced students to the potential responsibilities a community psychologist would expect in the field. It is a valuable approach in a graduate setting compared to traditional lecture-based courses. The following sections include reflections on active and experiential learning from one general psychology and two community psychology graduate students. The paper concludes with a discussion from the course instructor.

Reflections on Community Partnerships by Nicole Brown

Across four semesters in CCSU's psychology graduate program, the prevention and community-based research experience was undoubtedly one of the highlights of my time spent studying here. Working on this course project in conjunction with New Britain's East Side Community Center, students were able to witness and participate in the collaborative community research process. We experienced the unique challenges and successes that come along with a community-university partnership. The course impressed upon me the fact that even as an academic researcher with university backing, I am not necessarily in an elevated position over community members in a research project. Further, this project allowed me to learn a great deal more about New Britain residents' personal ex-

periences and viewpoints than I could have learned from readings and discussions inside the classroom.

As my classmates and I presented our study's findings directly to the community members, I came to understand just how valuable this partnership had been for both groups. I found my participation in such a mutually beneficial research process to be incredibly fulfilling, so much so that it inspired my master's thesis project. Over the course of the semester, my classmates and I were fortunate to have built a strong foundation with the community partner. I continued building off this foundation shortly after the semester's end and approached the East Side Community Center about collaborating on a future project for my thesis. Since then, I have continued fostering this partnership as I collaborate with the program staff on an evaluation of their after-school programming. This course helped me develop a better sense of myself as a researcher and what I value in the research process, namely that my research not only serves to better myself professionally, but potentially better the community as well.

This experience serves as an example of how a course can be designed to encourage students to connect with and contribute to the New Britain community. As students, staff, and faculty of CCSU, we are all a part of that larger community. Partnerships like the one made possible through this course are truly invaluable. Such collaborations and partnerships formed across CCSU's disciplines have the potential to make an immeasurable impact throughout the community. I am incredibly proud to have been a part of building and maintaining one such community partnership.

Reflections on Skills by Briana N. Howard

Since high school, I have had a passion for clinical psychology. I went into my undergraduate and graduate studies with the impression that nothing was going to change my mind; clinical psychology was my niche. Then, I enrolled in the prevention and community-based research class and could never have imagined the open doors and opportunities this course would provide me with. Community psychology and clinical psychology often reflect many of the same principles. By having a good understanding of community psychology, I believe you can better assess community needs and create or improve programs. By improving communities, we have the potential to improve mental health.

Not only has community psychology influenced my perception of clinical psychology, I have also had the ability to make lasting community connections within New Britain that I have maintained in in my new AmeriCorps position. I have recently begun serving as an AmeriCorps member through Local Initiatives Support Corporation, Connecticut Statewide at the Neighborhood Housing Services of New Britain, Inc., where I serve as an assessment coordinator in a program called Trauma Informed Community Development. The Trauma Informed Community Development framework is intended to aid in the recovery of historical community trauma such as adverse childhood experiences, redlining of the community, racism, and so forth.

In this position, I am required to collect and analyze numerous types of archival data. I find myself often taking the knowledge I learned in the prevention and community-based research course and applying it to better understand how to analyze qualitative and quantitative data. I am also responsible for creating focus groups and developing community readiness surveys. The course provided me with the knowledge and skills for designing and facilitating a focus group. I also learned the importance of note taking, recording, and probing when conducting a focus group. Additionally, I became familiar with the grounded theory approach for analyzing qualitative data.

Overall, the applied skills I've acquired from the prevention and community-based research course have been influential in my current position. These skills are also crucial to my development of research knowledge as I move forward in my clinical career.

Reflections on Career Choice by Kevin M. Rodriguez

All too often, my undergraduate psychology classes consisted of long teacher-centered lectures and yawning students. The only course that stood out was research methods. What made this class different was the emphasis on *action*. Students were taught research design while simultaneously conducting research in teams. It was the opportunity to be involved in the research process and engage in activities that allowed me to develop a passion for research.

I took my passion for research and social justice and found community psychology. In a field that emphasizes action research in the community, a teacher-centered classroom setting is not enough. The key to the prevention and community-based research course's successful teaching philosophy was the integration of

active and experiential learning concepts. Engaging in thoughtful discussions and activities proved to be intellectually stimulating. Critically, the main points of the material have stuck with me, which has improved my experience in other graduate courses as well as my job as a program coordinator.

Conducting community-based research provided quality exposure to the challenges a community psychologist might face, and the skills needed to be successful. Indeed, experiential learning can be a litmus test. A glimpse into the job could reinforce or break down a student's interest in the field. Fortunately, the litmus test reinforced my interest and passion in community psychology. I would encourage other courses at CCSU to give their students the same experience to help them gauge their passion for the work of their field.

A student-centered approach, a mixture of active and experiential learning, has been vital to my career path. Specifically, the prevention and community-based research course has given me the necessary knowledge and experience to improve my critical thinking, problem solving, and teamwork skills. Above all, I know that I have chosen the right career.

Discussion and Recommendations

Community psychology's high regard and practice of collaborating with community members is an integral component of the field. The integration of this practice as a pedagogical approach at the undergraduate and graduate levels has increased both community-based learning as well as become an effective way to learn about community psychology. While this more active and experiential classroom approach can pose challenges (including the relationship and trust that needs to be developed with the community partner and the actual implementation of the collaborative project) there are also many benefits (Amer, Mohamed, & Ganzon, 2013; Onyek, Miller, Matthews, Moore, Tyson-McCrea, & Richards, 2020). However, one major concern about community-university partnerships from the perspective of the community partner is the issue of sustainability (Amer et al., 2013; Hunt & Wilson, 2020). The project ends when the semester is over, and the community partner does not hear from their university partner again. This is a relevant concern and one that university partners must give proper attention to if authentic reciprocity and benefits are valued.

The three psychology graduate students in this article reflected on their experiences in the prevention and community-based research course, and among

these experiences, a recurring theme was the sustainability of the partnership that was developed through their continued interest and involvement in research and service with the community partner or the community at large. The first student is collaborating with the East Side Community Center for her thesis project and the second student is working as an AmeriCorps volunteer in the community. The third student will continue his education and training in community psychology as part of his long-term goal, as well as take the lead in preparing a manuscript for publication with the community partner as a co-author. In general, the fostering of authentic inclusion and collaboration with the community partner was impactful for the individual students, and in turn the students are helping to continue the sustainability of the relationship and work in the community.

While other recommendations have already been provided for faculty members interested in community-based learning and experiential approaches (Lien & Hakim, 2013; Nazario, Strange, Beadle, Kawecki, & Thai, 2018), new insights and broader lessons that have been learned over the years from teaching this course include:

1.Be very intentional about how a community-based research project should be carried out in a course. Thoroughly discuss how research should be conducted in the community and align this with the actual research project from beginning to end. This includes having frequent and regular communication with the community partner to ensure that the project will be feasible and valuable for all parties involved. Data collection instruments should be culturally and developmentally appropriate, and pre-tested with a similar age group if possible. Consistently discuss and examine ethical and practical realities throughout the implementation of the research project with both students and community partners. Lastly, continuously reflect on the process throughout the semester to ensure a high-quality experience for all involved.

2.Report the results in multiple ways. Remember that standard academic papers may not be accessible or beneficial for the community partner. Consider engaging and interactive presentations, brief reports that highlight the main points of the research, and other creative outlets for communicating the findings. Follow-up with the community partner after the semester has concluded to ensure that the study findings are understood and see if you can be of further assistance in communicating the study's findings or providing context for how they can be

utilized for community or program change efforts. This also enhances the sustainability of the partnership.

Overall, experiential and active learning that engages students in participatory and collaborative research practices can have a multitude of positive impacts. One such important impact is the continued sustainability of those relationships and concrete undertakings that occur even after the semester's course project has been completed. As articulated by the graduate students earlier, this can be in the form of continued research or service positions in the same local community. In addition, the design of the prevention and community-based research course to allow for genuine community participation and collaboration between the community partner and students has reciprocal benefits. This model could be useful for other upper-level undergraduate or graduate courses interested in furthering student research experience in a real-world setting. This model could be further enhanced by the incorporation of a multidisciplinary or interdisciplinary approach where students work in teams comprised of different disciplines.

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Briana N. Howard is a psychology graduate student at Central Connecticut State University (CCSU). She earned her bachelor's degree in psychology with a minor in business management at CCSU. Briana is currently working as an AmeriCorps volunteer with the Neighborhood Housing Services of New Britain. As a volunteer, she assesses the community needs of New Britain. Briana also serves as a research assistant with a mentoring program, Success Central, at CCSU. She works alongside professors in collecting and analyzing data that may better understand the needs of youth in New Britain.

Kevin M. Rodriguez is a community psychology masters student at Central Connecticut State University (CCSU). He received a bachelor's degree in psychological sciences with a minor in Latino studies from the University of Connecticut. Currently, he is working on evaluation projects at the Center for Public Policy and Social Research at CCSU. Kevin collaborates with other faculty members on researching stereotypes and Latino student retention. His primary goal is to use community psychology principles to develop and evaluate educational and after-school programs to reduce the Black and Latino achievement gap.

Dr. Nghi D. Thai is an Associate Professor in the Department of Psychological Science at Central Connecticut State University (CCSU). She earned her Ph.D. in Community and Cultural Psychology at the University of Hawaii at Manoa and completed a NIDA T32 postdoctoral fellowship at The Consultation Center, Division of Prevention and Community Research, Yale University. Dr. Thai teaches courses on intergroup relations and diversity, community psychology, prevention, evaluation research, and community engagement. As a community psychologist, she uses ecological systems and community-based participatory research approaches for her research projects with community partners in New Britain and Hartford.

Embracing the Affective Domain in a Course in Science and Pseudoscience

Kristine Larsen

According to Krathwohl, Bloom, and Masia (1956), the five categories of the Affective Domain in education (listed in increasing sophistication) are being open to receiving material, responding to that material (hopefully with enthusiasm), attaching value to the material, organizing values into a consistent worldview, and finally the characterization of a person's actions consistent with this worldview (pp. 176-85). While they note that it is rare for educational objectives to reach this fifth level (p.165), opportunities that test a student's willingness "to revise judgments and to change behavior in the light of evidence" begin to probe this level of sophistication (p.184). While the importance of the Affective Domain is beyond dispute, chances are that if you visit a university science classroom you will observe a nearly single-minded emphasis on the Cognitive Domain. As Alsop and Watts (2003) note, this is largely due to the stereotypical image of science as logical and divorced from emotion (p. 1044). At the same time, faculty often encounter rather vociferous pushback from non-science majors (Martorano, 2014; Olin, 2018; Williams, 2013) who resent having to take general education science courses that they see as irrelevant to their lives (or, at the very least, far less important than the opportunity to take additional courses in their major). It is therefore no surprise that Thomas Koballa (2016) defines motivation and attitude as "the most critically important constructs of the affective domain in science education." But how do we motivate students who often grudgingly take a general education science course merely to check off a box in their requirements, what Glynn and Koballa (2006, p. 26) term "extrinsic motivation"?

The Honors Program at Central Connecticut State University is an interdisciplinary program open to students of any major, and emphasizes critical thinking, deep reading of primary texts, and effective communication. The interdisciplinary courses are generally team-taught by two faculty from different departments and are thematic in nature. The prescribed curriculum replaces a student's general education requirements (with the exception of lab science, mathematics, foreign language, First-Year wellness, and any specific require-

ments dictated by one's major). Although students can choose between two topical sections of each required HON course, a student's registration in a particular section is often governed by utilitarian concerns over scheduling of courses and not necessarily related to an innate interest in or curiosity concerning the specific course topic (what Glynn and Koballa [2006, p. 26] term "intrinsic motivation"). As eligibility to continue in the program and receive the associated scholarship is tied to one's GPA, Honors students are often single-mindedly concerned with grades, demonstrating what Glynn and Koballa (2006, p. 26) refer to as performance orientation rather than learning goal orientation.

While the program is open to students of all majors, there has historically been an oversubscription of Humanities majors as opposed to STEM-related majors (e.g., engineering and nursing). In addition, a significant number of students in STEM majors are exempted from the single Honors science course, HON 120 Natural Sciences and Society, due to conflicts with enrollment in their major courses. As a result, the student body of this course is more heavily skewed towards Humanities, Business, and Education majors than the Honors Program population as a whole. As many of these students openly note in their application to the program that science and/or math is their weakest subject, they frequently enter the course with relatively lower interest in the content, and in some cases an openly admitted science phobia. This is the backdrop that one particular section of the course seeks to address through combining the Affective Domain with the Cognitive.

A first-year section of the course HON 120: Natural Sciences and Society entitled "Science and Pseudoscience" has been taught by an astronomer (myself) and an archaeologist approximately ten times over the past twenty-plus years. Both faculty members have scholarly, professional, and outreach experience in combatting pseudoscience and conspiracy theories in the media. As my co-instructor Ken Feder explains,

> there is great harm when people do not obtain appropriate medical intervention for serious illnesses – opting for unproven remedies and dying prematurely as a result. In extreme case, charismatic leaders have led their gullible followers… to their deaths. Belief in nonsense often is just foolish, but it sometimes is tragic. (2006, p. 15)

Glynn and Koballa (2006, p. 29) recommend specific practices for enhancing motivation of college students in science courses, including the use of inquiry-based activities that present students with "ideas that are somewhat in conflict with their current knowledge and beliefs." Over the course of the semester, Ken and I lead the students through a debunking of astronomical pseudosciences and conspiracies such as astrology, Moon landing denial, and UFOlogy; archaeological pseudosciences and hoaxes such as Atlantis, Piltdown Man, and the Cardiff Giant; and various cross-disciplinary pseudosciences such as ancient astronauts, eugenics, and end of the world predictions (such as the supposed December 12, 2012 Maya calendar apocalypse). The course also explores the scientific evidence for (as well as political and religious attacks of) evolution and climate change. The learning outcomes for the course are not only Cognitive (e.g., the ability to distinguish between science and pseudoscience), but Affective as well, seeking to change the students' motivation for being in the course from extrinsic to intrinsic, and from a performance orientation to a learning goal orientation. In short, we encourage the students to not only be willing to receive the material and respond in an enthusiastic way to it, but to internalize the value of debunking pseudoscience such that the knowledge and experience gained in this course affects their own individual values and worldview.

In order to effectively study the differences between science and pseudoscience, and master the necessary skill of debunking the latter, it is first necessary to tackle the elephant in the room, the often-thorny relationship between science and religion. Students in the program who freely offer information about their religious affiliation in class discussions generally reflect the overall New England population, with the majority being Christian of some denomination, mainly Catholic (Pew Research Center, 2015). Class discussions confirm that students have too often been taught that scientists are hell-bent on disproving the existence of a supreme deity, a misconception that is fed through the anti-religious writings of some scientists, most (in)famously Richard Dawkins (Johnson et al., 2016). The misconception is so widespread in the general media that the question "Is CERN's aim to prove that God does not exist" is openly addressed on the famed particle physics facility's social media FAQ website (2020).

For this reason, the first full lecture of the semester is dedicated to not only the methodologies of science, but its limitations as well, especially its lack of relevance to the supernatural (meant in the literal sense of beyond the natural world), especially religion. Most importantly, a foundation for the respectful ap-

preciation of the importance of *myth* is set down in this lecture, not only in terms of cultural studies but also in reconstructing observations of the natural world passed down from generation to generation, such as the well-known geomythology surrounding the explosion of Mount Mazama that formed Crater Lake (Harris, 2000, pp. 1312-3). Common archetypes found in creation myths are explored, a topic that elicits palpable interest from the students (especially as related to their own experiences with Greek mythology in junior high or high school). However, the tension in the room invariably rises when a reading from *Genesis: I* leads the students face to face with the concept that the Judeo-Christian tradition of creation is also a creation myth. This is one of the most precarious moments of teaching I encounter, as it has the potential to either permanently turn off students or lead them to open their minds to a new way of thinking about their own beliefs. It is reinforced numerous times that the goal is *not* to have students doubt any previously held religious belief, but rather to demonstrate the difference between science and religion, and to overcome the common misconception that calling something a "myth" instantly denigrates it. Paleontologist and popularizer of science Stephen Jay Gould's Principle of NOMA, or Non-Overlapping Magisteria, is offered as a way to respectfully differentiate between the realms of science and religion. It is made clear that the empirical realm of the scientific method does not overlap with the faith-based realm of religion, or, as Gould quips, "science studies how the heavens go, religion how to go to heaven" (1999, pp. 5-6).

This foray into what can be an educational minefield is necessary, not only to establish the ground rules for respectful discourse throughout the semester, but because, as John Cook and Stephan Lewandowsky explain in *The Debunking Handbook,* careless attempts at debunking pseudoscience and conspiracy theories can reinforce such misconceptions. This is especially true of the "Worldview Backfire Effect" (2012, p. 8), which occurs when the debunker provides information that openly contradicts the audience's beliefs. The more deeply held the belief, the greater the chance for this effect. To minimize this, it is extremely important to keep explanations clear, straightforward, and avoid insulting or deriding personal worldviews that are not central to the scientific argument (such as religious views).

With this foundation in place, intellectual exploration begins, as students engage with the material in a variety of group and individual assignments. In the two group projects, students research the explicit inclusion or exclusion of evolu-

tion in state science education standards across the country, and evaluate the evidence in a case study of so-called psychic detective Phil Jordan (http://www.philjordan.com/about.html). Individual work includes a take-home midterm and final that stress critical thinking and evaluation of evidence.

Research suggests that intrinsic motivation increases when students are granted self-determination within the classroom, including options to choose aspects of their assignments (Glynn & Koballa, 2006, p. 27). This is accomplished through three additional assignments, two of which incorporate both oral presentations to the class as a whole and individual written papers. In the first assignment of the semester, each student presents a five-minute summary of the creation myth of a particular culture of their choice, which is then transformed into a short paper comparing their myth with one presented by a classmate (again of their choice), demonstrating both the universal framework of most creation myths and the cultural relevancy of the individual examples. The last is the capstone activity of the semester, a fifteen-minute presentation and approximately seven-page paper debunking a pseudoscience of their choice (with topics pre-approved by the faculty to make sure students are not impinging on religious beliefs). Popular examples range from Bigfoot and the Loch Ness Monster to crop circles, tarot cards, ESP, the Illuminati, palmistry, Ouija boards and the Amityville Horror. Between these two assignments the students write a short research paper (about seven pages) in which they weigh evidence on both sides of (and ultimately come to their own conclusion about) one of four issues that straddle the boundary between science and society. The four prompts are as follows:

1) Research on bird (avian) flu strains that seeks to understand how many mutations it would take to make the flu easily spread between humans and animals is too dangerous to conduct and should be illegal.
2) Mars's atmosphere should be terraformed so that humans can live on its surface, even if there is a possibility of microscopic indigenous life on Mars.
3) We should stop intentionally broadcasting messages to outer space in an attempt to contact extraterrestrials because it might pose a threat to earth's security.
4) The Large Hadron Collider at CERN should be shut down because it might make microscopic black holes that could destroy the earth.

By the end of the semester, students not only become highly engaged in class discussions, but with few exceptions engage in insightful critical thinking and argumentation, as well as cogent and enthusiastic oral and written debunking of pseudoscience. Student course evaluations frequently include words such as "very interesting," "awesome," "fun," "enjoyable," "best class," and, surprisingly for a general education science course, "favorite class." Individual students have noted that the course "opened my eyes up to a lot of topics" and "helped me become less gullible and become more critical of 'false claims'." One enthusiastically offered "I love this course. It was very informative, and I don't feel as naïve when it comes to peoples' claims. I am usually gullible, so this helped in explaining to people why something is not real!" Another student reflected that the "course is so useful to college kids especially who are targeted by marketing, ads, and even websites we've been using for other papers that are not legitimate. Gives us a healthy dose of skepticism."

Each time the course has been offered, individual students have shared with the class examples of particular pseudoscientific beliefs that are either held by someone the student knows or even themselves (when they began the course). It is a singular moment when a student feels comfortable admitting this in the public square of the classroom and then adds "but now I understand why it's not true." The ability of a student to examine the data and not only accept that the preponderance of evidence does not support their viewpoint but make an honest change in his/her worldview represents the student's arrival at the pinnacle of the Affective Domain taxonomy. This is the ultimate goal of the course, and, anecdotally at least, it has been successful in this regard.

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Intergenerational Exchange: A Pedagogical Tool for Increasing Student Engagement and Aging Literacy

Carrie Andreoletti

My favorite geriatrician, Dr. Bill Thomas, likes to say, "you may not be interested in aging, but aging is interested in you" (Thomas, 2016). Whether we want to think about it or not, aging unites us all. If things go well in life, we will all learn what it is like to be old. People are living longer and healthier lives than at any other time in history, yet negative stereotypes and misinformation about aging and older adults remain pervasive in our youth-obsessed culture (Levy, 2017). Many people's earliest encounters with older adults involve visits to or volunteering at nursing homes, which reinforce the belief that all older people are sick, frail, and in need of care. Most people don't realize that nursing home residents account for less than 5% of the population over the age of 65 and are not representative of what it means to be old in our society today (Administration on Aging, 2013). I'd like to convince you that we need to do a better job of educating ourselves and our students about the realities of aging. One way to do this is to be more age-inclusive on our campus and in our classrooms by creating more opportunities for intergenerational connection and exchange. Intergenerational exchange not only fosters aging literacy by exposing students to older adults who challenge stereotypes, but has been shown to significantly increase student engagement.

In May 2017, CCSU became an early member of the Age-Friendly University (AFU) global network, which now consists of over 60 institutions across the globe dedicated to the development of age-friendly programs, practices, research, and education (Andreoletti & June, 2019). The AFU initiative was inspired by the World Health Organization's age-friendly community initiative and was started by Dublin City University to encourage institutions of higher education to be more age-inclusive and promote health and well-being across the lifespan. In 2012, before any notions of what it means to be an AFU, I developed a brief intergenerational service-learning program called WISE (Working Together: Intergenerational Student/Senior Exchange) to promote intergenerational understanding and exchange. In a typical semester, students and older adults from a local assisted living community or senior center meet for 2 to 3 class periods (either on campus or in the community) and participate in small group discussions

on topics of mutual interest such as education, environment, finances, and relationships. Research has shown that these brief interactions have a positive impact on both younger and older adults by reducing negative age stereotypes and increasing well-being and feelings of generativity (Andreoletti & Howard, 2018; June & Andreoletti, 2018).

Although the WISE program was initially designed for use in classes focused on aging and is now routinely included in gerontology and aging classes taught by myself and my colleague, Dr. Andrea June, the benefits of intergenerational connection need not be limited to classes about aging. The AFU initiative has encouraged me to think more broadly about including older adults across the curriculum. As a result, I've infused intergenerational components into classes like Positive Psychology (PSY 444) and Science and Society (HON 220; co-taught with Dr. Aimee Pozorski), where intergenerational groups discuss readings and/or topics related to the class. Although the intergenerational component of the class consisted of only two class periods, students consistently reported in reflection papers and course evaluations that this experience changed their views of older people and was one of the most impactful parts of the class. One honors student noted, "This experience definitely helped me gain a better understanding of the adult aging process because there is a notion in our society that older adults are "culturally naive" or have an almost childlike innocence because they may be viewed as fragile. However, this is not the case, the older adults in class were insightful and thoughtful in their reading . . .." Another went so far as to say ". . . I believe I can speak for all of us when I say that this experience was one of the most beneficial experiences that I have ever had so far at my time at CCSU."

Lasell University in Newton, MA provides an excellent model for how older adults can be included in classes across a wide range of disciplines (Montepare & Farah, 2018). The Talk of Ages program at Lasell uses course modules where instructors adapt existing course content and activities to include older learners for one or two weeks. Like WISE, the modules are designed to bring together younger and older students around topics of shared educational interests rather than a specific focus on aging (which is often of less interest to older adults). At Lasell, intergenerational modules have been incorporated into a wide range of courses, including American Folk Music, Anthropology, Creative Writing, Drawing, English Composition, Forensics, History of Women in the US, Intercultural Communication, Modern Science and Technology, Psychology of Gender Identi-

ty and Sexual Orientation, and Sensation and Perception, to name a few. Surveys to assess participants' experiences with the modules revealed positive benefits for both younger and older students. Instructors also reported positive benefits such as their younger students being more engaged in discussions and taking more care in preparing presentations with older students in the audience, and older students sharing different perspectives that enhanced learning (Montepare & Farah, 2018).

The COVID-19 pandemic further highlights the need for increasing aging literacy and developing opportunities to foster intergenerational solidarity. Public discourse around the pandemic has resulted in increasing levels of ageism as older people are consistently portrayed as vulnerable and weak (Ayalon et al., 2020; Reynolds, 2020). While age is a risk factor for COVID-19, other risk factors include health status, gender, race, ethnicity, economic status, and occupation. Older people are a very diverse group; to assume that age is the greatest risk factor for COVID-19 is a form of ageism (Gerontological Society of America, 2020). While the pandemic has made it more challenging for in-person intergenerational exchange, people of all ages, including people over the age of 70, have turned to technology and learned new platforms like Zoom to connect with family and friends. The pandemic has forced us to get creative and be open to new ways of doing things. Health professionals provide more services remotely, while senior centers, gyms, and libraries now offer virtual programs to their members. There are also many ways to foster intergenerational connection using the telephone, email, and even good old-fashioned snail mail (e.g., Chase, 2011). If my mother-in-law and her book club (all octogenarians) can manage to continue their meetings on Zoom, I'm confident that we can find ways to integrate older people into our classes even during these challenging times.

I hope I have encouraged you to think about why and how you might integrate an intergenerational component into your teaching. Intergenerational exchange is one way to energize and engage your students as well as create a more age-friendly campus. With people living and working longer, the demographics of our society are changing. Emphasis is often placed on the challenges of an aging society rather than the many benefits that come with a longer life, known as the longevity dividend. We need to prepare our students for longer lives and for multigenerational workplaces and communities. Research shows that negative stereotypes and attitudes about aging not only foster ageism and prejudice against older adults, but also become internalized and have a negative impact

on our own aging and lifespan (e.g., Levy, 2009). Including older adults in the classroom as experts, guest speakers, visitors, mentors, or students, contributes to intergenerational understanding by giving people from different generations the opportunity to learn from one another and find common ground; it also happens to be a lot of fun and infuses a lot of excitement and energy into the classroom.

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Universal Design for Learning in Online Educator Preparation

Maria Boeke Mongillo, Candace Barriteau Phaire, Sally V. Drew, Joan Nicoll-Senft, Felice Atesoglu Russell, and Natsuko Takemae

Universal Design for Learning (UDL) is a student-centered educational framework that is grounded upon cognitive neuroscience research on learning (CAST, 2018) and universal design in architecture for accessibility (Meyer, Rose, & Gordon, 2014). The ultimate goals of the UDL framework are to support students in becoming expert learners who are (1) purposeful and motivated for learning engagement, (2) resourceful and knowledgeable about processing information, and (3) strategic and goal-directed through active interactions with learning (CAST, 2020; Rose & Meyer, 2002). The focus of UDL is on removing barriers to learning and providing built-in support for students through adapting curriculum, instruction, and assessment, thus addressing "the disabilities of schools rather than students" (Meyer et al., 2014, p. 3). To ensure students have equitable opportunities to become expert learners, UDL relies on three core principles requiring educators to provide: multiple means of engagement, multiple means of representation, and multiple means of action and expression. These three core principles address varied approaches to (a) student engagement in learning, (b) information presented to students, and (c) interactions with learning (CAST, 2018; Rose & Meyer, 2002).

To help educators apply the UDL framework, CAST created and updated UDL Guidelines version 2.2 (CAST, 2018), a set of guidelines to offer practical classroom applications. The guidelines are organized by the three core principles mentioned above, and each of the core principles are broken down into three sections: increasing access, building knowledge and skills, and internalizing learning and academic behaviors. The guidelines are then further defined by "checkpoints" that offer concrete suggestions for how to apply the guidelines in all classrooms. The checkpoints are based upon research-based evidence, including experimental studies, scholarly reviews, and expert opinions.

The guidelines (see Figure 1) are organized so that the three core vertical alignments of the UDL framework — Engagement, Representation, and Action and

Expression — are supported by the three horizontal alignments focusing on accessing, building, and internalizing aspects of students' learning. For Engagement, students' *why of learning* is enhanced by providing options for learning through (i) accessing and Recruiting Interest (Guideline 7), (ii) building Sustaining Effort & Persistence (Guideline 8), and (iii) internalizing Self-Regulation (Guideline 9). The goal for Engagement is for students to become purposeful and motivated expert learners. For Representation, students' *what of learning* is elevated by providing options for learning through (iv) accessing Perception (Guideline 1), (v) building Language & Symbols (Guideline 2), and (vi) internalizing Comprehension (Guideline 3). In this way, students can work toward becoming resourceful and knowledgeable expert learners. For Action and Expression, students' *how of learning* is promoted by providing options for (vii) accessing Physical Action (Guideline 4), (viii) building Expression & Communication (Guideline 5), and (ix) internalizing Executive Functions (Guideline 6). Through these alignments, students can make progress on becoming strategic and goal-directed expert learners. Under these vertical and horizontal alignments, there are UDL checkpoints for more detailed targets for providing options. Therefore, when reviewing the UDL checkpoints, it is essential to purposefully focus on both vertical (Engagement, Representation, and Action and Expression) as well as horizontal (access, build, and internalize) alignments.

FIGURE 1

UDL Guidelines version 2.2 (CAST, 2018)

In higher education, the UDL framework is defined and endorsed by the Higher Education Opportunity Act (HEOA) of 2008 for aligning with educational standards and supporting the academic achievement of all students (Meo, 2008; U.S. ED, 2010). In addition to the HEOA (2008), applications of the UDL framework to learners' prior education in K-12 are also endorsed and supported by educational laws such as Individuals with Disabilities Education Act (IDEA) of 2004 and Every Student Succeed Act (ESSA) of 2015 (National Council on Disability, 2018; U.S. ED, n.d.a; U.S. ED, n.d.b). In order to provide a comprehensive educational support system for all students to become expert learners from PK-12 to higher education, the UDL framework is an essential element of educational laws and practices.

While UDL applies to all classroom environments, it is particularly valuable in an online setting where students may find it more challenging to develop relationships with the instructor, other students, and course material in the absence of face-to-face contact (Hollingshead & Carr- Chellman, 2019). Muilenburg and Berge (2005) found barriers to online learning, including social interaction, academic skills, technical skills, learner motivation, and time and support for studies. When educators apply UDL in the online setting, they can mediate or eliminate these barriers by providing multiple means for students to employ their affective, recognition, and strategic brain networks.

Faculty in higher education can also leverage UDL to address the changing demographics and needs of their students. For example, today's college students are more likely to need remediation (Adams, 2015), have poor study and time-management skills, and less time for study outside of class (College Board, 2015). An approach to simplifying the use of UDL in higher education settings posited by Tobin and Behling (2018) is known as one-plus thinking. This approach to identifying "just one more way" that students can demonstrate their skills mitigates the complexity of the UDL framework by providing clear guidance for faculty to address the barriers to learning, or pinch points, in their classes.

At the beginning of the Fall 2019 semester, Dr. Candace Barriteau-Phaire organized a Learning Community Group (LCG) through CCSU with a focus on UDL. The group brought together faculty from Literacy, Elementary, and Early Child-

hood Education, Special Education and Interventions, and Educational Leadership, Policy and Instructional Technology. One of the first collective tasks was for all members to enroll in and complete the workshop "Applying Universal Design for Learning (UDL) Principles to Online Courses to Increase Accessibility and Engagement" offered by the Online Learning Consortium. The final project for the course was to redesign an online class session using the principles proposed by the workshop. All LCG members selected one of their Spring 2020 courses for the redesign to allow immediate implementation of course content and to provide practical experience for discussion and group learning. The sections that follow reflect each faculty member's experience applying UDL principles in their online or hybrid classes.

Multiple Means of Expression: Then and Now

Candace Barriteau Phaire

"You really gave us a chance to get the information in a different way and tell others what I know and now I get it! I didn't even think we could learn like that and now that's the main way I want to learn."

Introduction

This comment was shared during the end of a weekly seminar with students after discussing their experience with the latest "new and improved" discussion forums assigned in one of my three-credit hybrid courses. The conversation confirmed a barrier my students were encountering and the need to continue the work of transforming learning spaces to provide all students in my courses multiple means of engagement, representation, action and expression; all principles of the Universal Design for Learning (UDL). I recognized that my own understanding of applying UDL principles to learning experiences was novice (at best); therefore, I sought out methods to enhance my own pedagogical approaches and initiated a Learning Community Group (LCG) among faculty with varying levels of UDL experience to expand our knowledge together.

UDL Principles in Action

It is important to provide alternative modalities for expression, both to level the playing field among learners and to allow the learner to appropriately (or easily) express knowledge, ideas and concepts in the learning environment (CAST, 2018).

As I prepared for the beginning of another semester, I recognized the need to alter how students were able to receive information but also how they could express their understanding as well. The desire to shift from the traditional, single "call and response" model of the discussion forum in my hybrid courses, to a more student-centered, alternative approach for communicating, was a priority for improving teaching and learning in my courses.

I recalled how disconnected students appeared after a few discussion forums the previous semester, as there was a lack of engagement with the content that I knew my students could complete. Therefore, before the end of that semester, I did an informal assessment and learned from students that the discussion forums did not engage them in the same way our face-to-face sessions had. Prior to participating with our LCG and taking an online UDL learning course with LCG colleagues, I assumed that it was difficult to reproduce the level of engagement that occurs in face-to-face sessions within an online session. However, as a result of completing the online course focused on increasing accessibility and engagement, I adopted several methods and practices into my own hybrid courses that have enhanced the learning experience for everyone.

Recognizing the challenges with expression and communication my undergraduate students had during this hybrid course the previous year, I decided to focus on the principle within the Universal Design for Learning framework that focuses on how to provide multiple means of action and expression for the upcoming semester. I identified Checkpoint 5.1: Use Multiple Media for Communication (CAST, 2018) and utilized the specific concept of providing alternative media formats for students to express their understanding of content and communicate with classmates. Some examples include composing media in forms such as storyboards, illustration, speech, etc.. After careful reflection on how the content was presented for one of my hybrid courses, I decided to revise the format for how students engaged with the content in the discussion forums and also provided options for their methods of communicating what they understand about various concepts introduced in the online forums. I was able to apply some of the methods learned during the online UDL course to my own undergraduate course, by offering multiple resources that engage students with the same concept in different ways. Figure 2 illustrates an example of the instructions I used for a traditional discussion forum post in a previous class. There was only one option for receiving the information and one option for responding to what students learned.

FIGURE 2

Online Discussion Forum Instructions "Then"

"Discussion Forum Instructions: Greetings all. Please read the following article and respond to the questions below. After posting your initial response, please reply to at *least* two classmates with a response that could extend the conversation, provide feedback or offer additional insight into the topic addressed in the original questions"

The revised forum discussion prompt included four different resources for students to utilize for their responses in the discussion forum. In addition, each resource was different: one article, one video, one PowerPoint with multiple illustrations and additional links, and one resource that included a video and written information. Figure 3 reflects the revised format that has increased timely participation in discussion forums and the level of engagement among students. Many students extended beyond responding to the minimum of two classmates and made the choice to post responses to several classmates.

FIGURE 3

Discussion Forum Post "Now"

"Discussion Forum Instructions: Welcome back! Please select one of the following four resources to prepare for this week's discussion forum. Once you have completed reviewing and engaging in one of the resources, respond to one of the two discussion forum prompts with either an audio, video, illustration or graphic organizer to explain your understanding of this week's content.

After posting your initial response, please reply to at least two classmates with using the same options (either an audio, video, drawing or graphic organizer) to either extend the conversation, provide feedback or offer additional insight into the topic addressed"

I also included a welcome audio announcement for students in the initial session and offered an audio format for the instructions as well as the written format. The response from students was positive, with some students sharing how unique it was for them to be able to have options for receiving content and expressing their understanding. One of the discussion forums required students to respond to questions using a meme or "GIF" with a rationale for their selection. Students commented that while this was one of the most engaging discussions,

it was also one that made them use more critical thinking skills and deeply consider how they wanted to respond. The level of timely participation for that discussion forum was significantly higher than any other forum posted for the entire semester and led to very thoughtful engagement.

Figure 4

Applied Practices Based on the UDL Guidelines for Student Expression & Communication in an Early Childhood Undergraduate Course

UDL Guidelines			
	Engagement	**Representation**	**Action & Expression**
Access	**Recruiting Interest**	**Perception**	**Physical Action**
	7.1 ✓	1.1 ✓	4.1
	7.2	1.2 ✓	4.2
	7.3	1.3 ✓	
Build	**Sustaining Effort & Persistence**	**Language & Symbols**	**Expression & Communication**
	8.1	2.1	5.1 ✓
	8.2	2.2	5.2 ✓
	8.3	2.3	5.3 ✓
	8.4	2.4	
		2.5 ✓	
Internalize	**Self-Regulation**	**Comprehension**	**Executive Functions**
	9.1	3.1	6.1
	9.2	3.2	6.2
	9.3	3.3	6.3
		3.4	6.4
Goal	**Purposeful & Motivated**	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

Note. Adapted from *Universal Design for Learning Guidelines Version 2.2* (CAST, 2018).

Next Steps

At the close of the spring semester, I had an opportunity to meet with students and discuss their experiences with the new format. After consistently positive feedback and the overwhelming request from students for similar opportunities with UDL applications, I will continue to adjust my courses in an effort to remove other possible barriers to student learning. I look forward to addressing additional UDL applications throughout the next semester to enhance access to

learning for all students and increase the level of engagement in all courses I teach.

Redesigning Online Module Assessments in an Undergraduate Teacher Preparation Flipped Classroom to Invite Multiple Means of Action and Expression

Sally V. Drew

Once we start to think beyond the traditional concept of learning as classroom lectures, many new opportunities for learning unfold (Tobin & Behling, 2018, p. 90).

Introduction

The human interaction between teacher and student(s) optimizes the learning process to allow the learner to reach their full potential. As part of my work with our learning community group (LCG) focused on Universal Design for Learning (UDL), I sought to enhance the interaction among my students and myself in the online extension of our learning environment in my *flipped classroom* (Cheng, Ritzhaupt, & Antonenko, 2019) course for undergraduate secondary teaching students titled "Introduction to Educating Learners with Exceptionalities." My emphasis was on improving the online interaction while aligning to the core values of the course (i.e., equity, accessibility, and participation) and to the core principles of UDL (CAST, 2018).

Context

As part of the flipped classroom model, my students spent one-third of course contact hours meeting with me face-to-face at the university, one-third of the hours meeting with middle school students and me at a nearby school in an urban district, and one-third of the hours completing online modules designed to efficiently and effectively supplement course texts and materials to help the students attain the course learning outcomes. The online modules were completed outside of the designated class time, in addition to traditional homework assignments such as reading the textbook and taking online quizzes about course content. When I initially designed the online modules with a colleague, we planned assessments that were primarily text-based questions and answers or essay responses. After two semesters of implementing the online modules in this class, it became clear to us both that we were limiting our assessment of students by asking them to write traditional responses in an online format. So,

when invited to participate in this LCG on UDL, I immediately thought of this course and my goal of making the online modules more engaging and varied.

INNOVATION

In the LCG, we ascribed to the "plus one" approach for implementing our UDL innovation in an existing course. The approach of infusing UDL into existing courses using "plus one" thinking includes analyzing each interaction the learner has with the course (i.e., materials, peers, teacher, content, assessment) and providing one additional pathway to help facilitate interaction in a manner that enhances learning for a diverse group of learners (Tobin & Behling 2018). When integrating UDL innovations, Tobin and Behling (2018) guide teachers to first identify one barrier that learners are currently facing in the course and to begin by planning one solution based on the UDL framework.

Our LCG received additional guidance from an online course we took on using UDL principles to increase accessibility and engagement in online course design. From this course, I learned that there are specific barriers to learning that occur in online environments, such as academic, cultural, financial, technological, and instructional barriers (Muilenburg & Berge, 2005). I identified the primary barrier to my students' learning as both a technological and instructional barrier of maintaining an outdated 2D approach to learning within a traditional transactional model of "teacher provides a text-based assignment and student submits a traditional response in written paragraph form." Despite moving at least one-third of my course online, I was maintaining this 2D paradigm of teacher assigns, student submits, teacher grades, and not really allowing for the enhanced multimedia and interactive capacities of online learning (Tobin & Behling, 2018). I have to admit that part of my fallback to linear 2D instruction and assessment is precipitated by the flatness of our learning management system, Blackboard Learn. In any case, I planned my "plus one" approach in this course to optimize the digital interaction with the course's online learning modules to allow students to demonstrate their learning using multimedia forms of text (i.e., social media, video, podcast, infographics). To address this barrier, I focused on enhancing Action and Expression through the strategic network adhering to UDL checkpoint 5.2 "use multiple tools for construction and composition."

FIGURE 5

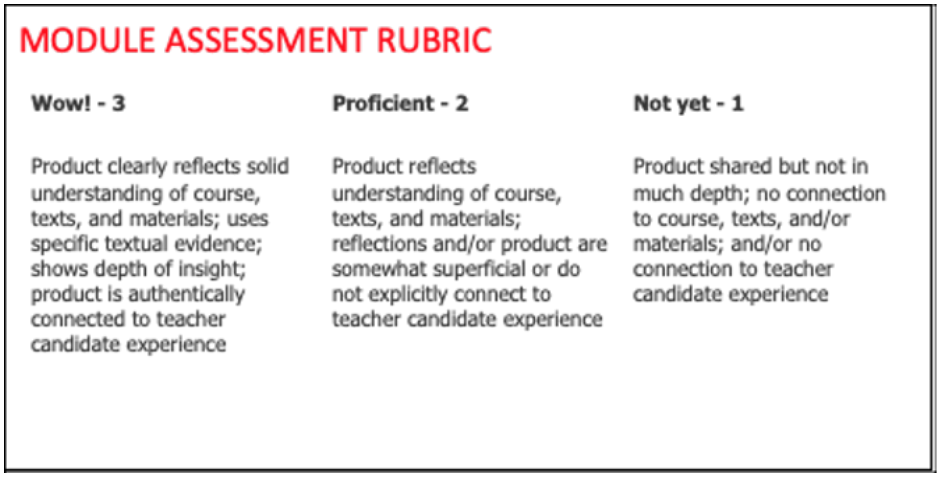
Redesigned Online Learning Module Assessment

Students in the course were introduced to the redesigned module assessment at the beginning of the semester. The series of online modules were described to them in class and the following figures were shown to them as a guide for the assignment. Figure 5 was created using the free online tool Canva (https://

www.canva.com/) and illustrates the multiple pathways for action and expression from which the students could choose to complete the redesigned assignment. These flexible and accessible options allow learners to showcase their learning and articulate their knowledge (CAST, 2018). Figure 6 is the rubric that was designed to consistently measure course outcomes regardless of which option students selected. Students were reassured that the rubric would be applied based on content integration, and preference would not be given to certain formats over others. I also encouraged students to try different pathways across the semester, rather than choosing the same format each time, so that they could develop an understanding of the strengths and drawbacks of each platform as future teachers.

FIGURE 6

Redesigned Online Learning Module Rubric



MODULE ASSESSMENT RUBRIC

Wow! - 3	Proficient - 2	Not yet - 1
Product clearly reflects solid understanding of course, texts, and materials; uses specific textual evidence; shows depth of insight; product is authentically connected to teacher candidate experience	Product reflects understanding of course, texts, and materials; reflections and/or product are somewhat superficial or do not explicitly connect to teacher candidate experience	Product shared but not in much depth; no connection to course, texts, and/or materials; and/or no connection to teacher candidate experience

As an example, one of the modules, "Building Partnerships through Collaboration" addresses the objective: students will explain their role within the collaboration to provide services to students with disabilities and other special needs. Students were given the following prompt and told to refer to the options outlined in Figure 5.

> Imagine you are interviewing for a teaching position in a local district. The interview committee asks you "As a general educator, what do you see as your role in collaborating to meet the needs of students with disabilities in your classroom?" Your response should include 3-5 of the following key

terms: RtI/SRBI, Collaboration, Co-teaching, Communication, Special educator, Administrator, Reading specialists, Literacy coaches, Speech/language, School psychologist, ESL teachers, Paraprofessionals, Title 1 personnel, Parents and families.

Student responses on this first online module assessment attempt included blog posts, podcast audio files, whiteboard animation video, and infographics. Student feedback indicated that they would require more support to facilitate a twitter chat. Students shared that they appreciated having many options but felt that it was more work to think creatively rather than just write a response. Those who felt crunched for time or unable to be creative tended to choose the blog post option. Some students who chose the infographic option mentioned that it was an efficient way to convey their learning without too much writing. Students shared the audio and video options took the most time.

Enhanced Equity, Accessibility, Participation

My selected innovation maintained my goal of equity in that all students were still held to equitable, yet high, expectations and rigorous course and module outcomes regardless of their selected assessment format. The additional assessment formats expanded the linear 2D environment to utilize diverse online learning features of enhanced interactivity and multimedia integration. Ultimately, this expansion improved accessibility for students based on learner preferences, interest, background knowledge, and language strengths and challenges. For example, students who struggled with the demands of written language could choose the audio or video format to convey what they knew. The additional response options also increased student ownership of their learning and participation in the learning environment. The redesigned module assessment focused on increasing student engagement and participation in the digital component of the course, rather than seeing the online modules as busywork.

Next Steps

As I continue to work toward equity, access, and participation in the various forms of interaction in this course, I seek to invite more collaborative discourse among students in the class with the module assessments. I plan to add a classmate response component to the assignment as well as additional social media outlets for students to choose from as they create their podcasts or videos. I think that it will be important for me to model this as a component of the

course, so that students can see the benefits of enhanced feedback from peers in the class.

FIGURE 7

Applied Practices Based on the UDL Guidelines

	UDL Guidelines		
	Engagement	**Representation**	**Action & Expression**
Access	**Recruiting Interest**	**Perception**	**Physical Action**
	7.1 ✓	**1.1**	**4.1**
	7.2 ✓	**1.2**	**4.2**
	7.3	**1.3**	
Build	**Sustaining Effort & Persistence**	**Language & Symbols**	**Expression & Communication**
	8.1 ✓	**2.1**	**5.1 ✓**
	8.2 ✓	**2.2**	**5.2 ✓**
	8.3	**2.3**	**5.3**
	8.4	**2.4**	
		2.5	
Internalize	**Self-Regulation**	**Comprehension**	**Executive Functions**
	9.1	**3.1**	**6.1**
	9.2	**3.2**	**6.2**
	9.3	**3.3**	**6.3**
		3.4	**6.4**
Goal	**Purposeful & Motivated**	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

Note. Adapted from *Universal design for learning guidelines version 2.2* (CAST, 2018).

CASE IN SPECIAL EDUCATION COURSES

NATSUKO TAKEMAE

Diverse learners enrich graduate programs by sharing their unique perspectives and background while collaboratively constructing their knowledge and skills in education. Students who are enrolled in the special education graduate courses have varied educational backgrounds. These students include classroom teachers seeking cross-endorsement licensure in special education, teaching assistants seeking initial licensure in special education, and students who do not have a background in education majors. These graduate students bring their unique

experiences and their fresh yet well-established perspectives to our collaborative educational knowledge constructions and skill developments in the graduate school. To provide embedded support for graduate students with different backgrounds, I have applied UDL principles to facilitate varied modes of student engagement, information representation, as well as interactions and processes of learning (CAST, 2020; Rose & Meyer, 2002).

Contexts of the Courses

In our special education programs, students are provided with scaffolding through which they can gradually develop their knowledge and skills in teaching students in K-12 classrooms (Kang et al., 2014). In the graduate courses, students learn to develop their understanding of the UDL framework and skills in planning instruction through UDL applications. To support this process, it is essential to empower students through collaboration and community (CAST, 2020). However, there are possible challenges to building collaborative activities and a community of learners in graduate courses. One of the possible challenges is the limited number on-campus meeting dates, due to the nature of hybrid courses, which also provides benefit for the graduate students who have full-time jobs.

The courses that I discuss below are hybrid-graduate courses. Because these courses are hybrid, students engage in face-to-face on-campus meetings and asynchronous online structures on alternating weeks. The first challenge to facilitating learning in online classes is fostering collaboration and community (UDL checkpoint 8.3) (CAST, 2018, Barrio, 2017). The second challenge is to explicitly model the UDL framework in order for students to increase their understanding of the UDL framework and apply the UDL principles to their teaching practices while having asynchronous classes (Houston, 2018). In this section, I highlight how I applied the UDL checkpoints to foster collaboration among students and develop a community of learners using online meetings.

Descriptions of the UDL Applications

There are four structures identified in these courses. These four structures include 1) face-to-face meetings on campus, 2) asynchronous meetings online, 3) preview activity and review materials, and 4) in-class mini-lectures, discussion, and activity materials. Under each course structure, the benefits for students and barriers to building collaborative learning and community of learners are identified. The UDL checkpoints (CAST, 2018) are identified and applied to designing

and implementing additional supports. As a result, students are encouraged to maximize their learning.

The first course structure, face-to-face meetings on campus, benefits learners as they have simultaneous instructor and peer instruction, opportunities to directly observe instructor models of teaching theories and practices, and hands-on practices for applications of knowledge and skills to activities and assignments. However, when students have unexpected absences, they cannot experience the benefits of face-to-face class meetings. To enhance all aspects of learning including student engagement, information processing, and interactions with the learning mastery (CAST, 2018), the following two options are added to this course structure. The first option is for students to engage in the WebEx live meeting broadcast from the classroom. In this way, students can be a part of collaborative activities and a classroom learning community. The second option is for all students to have access to recorded screen captures of class discussion and other activity. Making this video available to all learners not only benefits students who are absent and virtually/remotely attending the class meeting, but also other students who want to review the live class meeting later.

The second course structure, asynchronous class meetings online, is beneficial for students because they can process their learning in their own time and pace (by the due date). However, this learning structure can include two unique barriers. The first barrier is the time lag between initiating conversation and receiving responses through the online learning management site because peers are learning in their own time and pace during the online discussion forums. To remove this barrier, all elements of learning through three key UDL principles (CAST, 2018) are enhanced by incorporating WebEx synchronous meetings with options to review recorded videos. In this way, simultaneous peer and instructor discussions on key topics can be facilitated. Another barrier to be removed is a pre-set assignment format. A traditional method of assigning students written narratives in response to asynchronous class meeting activities may inhibit students' active engagement in learning, processing of information, and expression of knowledge/skills (CAST, 2020). Therefore, options for the assignment submission formats are provided, including student-suggested formats with consultations with the instructor. These optional formats provided by the instructor include infographics, comic strips, videoclips, photo with voice narratives, graphics, thinking maps, and more. Among these options, some examples such as infographics and videoclips are created by the instructor and provided to students

Adapted from *Universal Design for Learning Guidelines Version 2.2*, by CAST, 2018. http://udlguidelines.cast.org/

as well. Through these options, students can choose their own structures to engage in learning and interact with their learning materials and process.

Figure 9 shows UDL checkpoints that are targeted through embedded supports in the design process. The first set of checkmarks in the left-hand side under each UDL Guideline show the checkpoints considered in the first course structure, face-to-face meeting on campus. The second set of checkmarks in the right-hand side under each UDL Guideline shows the checkpoints that are planned in the second course structure, asynchronous online meetings. Note that Engagement, Representation, and Action & Expression are considered in the face-to-face meeting on campus, and that Engagement and Action & Expression are further planned for the asynchronous online meetings.

FIGURE 8

Applied Practices Based on the UDL Guidelines for Cases in Special Education Graduate Courses Offered Early in the Program

	UDL Guidelines		
	Engagement	**Representation**	**Action & Expression**
Access	**Recruiting Interest**	**Perception**	**Physical Action**
	7.1 ✓ ✓	1.1 ✓	4.1 ✓ ✓
	7.2 ✓	1.2 ✓	4.2
	7.3 ✓ ✓	1.3 ✓	
Build	**Sustaining Effort & Persistence**	**Language & Symbols**	**Expression & Communication**
	8.1 ✓ ✓	2.1 ✓	5.1 ✓ ✓
	8.2 ✓ ✓	2.2	5.2 ✓ ✓
	8.3 ✓	2.3	5.3 ✓ ✓
	8.4 ✓	2.4 ✓	
		2.5 ✓	
Internalize	**Self-Regulation**	**Comprehension**	**Executive Functions**
	9.1 ✓	3.1 ✓	6.1 ✓ ✓
	9.2 ✓	3.2 ✓	6.2 ✓ ✓
	9.3	3.3 ✓	6.3 ✓
		3.4 ✓	6.4 ✓ ✓
Goal	**Purposeful & Motivated**	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

Note. Adapted from *Universal Design for Learning Guidelines Version 2.2* (CAST, 2018).

Next Steps

By identifying specific barriers and intentionally designing bridges to learning in face-to- face meetings on campus and asynchronous meetings online, student engagement, information processing, and learner action and expression can be enhanced. As I continuously design and re-design learning, my next step is to identify how the specific UDL applications I implemented can themselves become benefits and barriers to learning for some students in specific (a) academic courses (e.g., introductory and assessment courses), (b) meeting formats (e.g., face-to-face meetings on campus, synchronous meetings online, and asynchronous meetings online), and (c) learning activities (e.g., field experience assignments, simultaneous hands-on discussions, and peer feedback).

There are learner and contextual variabilities to consider when developing courses (CAST, 2018). Based on neuroscience research each human brain is unique, thus the way we learn is individualized as well (CAST, 2018). Each learning context also is unique because of student background knowledge and experiences (Edyburn, 2010; Rose & Meyer, 2012). For these reasons, the complexities between learners and their interactions with their learning need to be continuously addressed (Edyburn, 2010; Rose & Meyer, 2012). Each of course structures discussed here has both benefits for students and barriers to learning due to learner and contextual variabilities. Therefore, it is essential to explore how specific UDL applications can serve as benefits to be enhanced and barriers to be removed among diverse learners in specific contexts in the future.

Student Introductions in an Online Course for Teachers: Using Universal Design for Learning to Increase Engagement

Felice Atesoglu Russell

"Who is even in this class, anyways? I'm not sure I will learn in an online class but can't make it all the time to campus"

Introduction and Context

Graduate students in online education courses often wonder how they will connect with course colleagues and content in a fully online context. Supporting the development of a fully engaged, professional learning community in a fully online context with practicing teachers can be a challenge. Often graduate students who are working full-time as teachers have little time to spare, but simultaneously have anxiety about entering a fully online course. They often wonder

how they will make connections and keep up with the demands of course content and assignments. In some cases, the anxiety over a fully online course prevents students who might otherwise move through their graduate program more quickly from entering the course at all. As an instructor of a fully online course, ED 520 Instructional Programs for Diverse Learners, located within the M.S. in Teacher Leadership program at CCSU, I chose to focus on this particular challenge of developing an engaged professional learning community as I set out to design a fully online section of ED 520 for the Spring 2020 semester.

A Plus-One Approach to Support a Fully Online M.S. in Teacher Leadership Course and the Development of a Professional Learning Community

Drawing on the UDL-inspired notion that there are particular barriers (Meyer et al., 2014) that prevent access for students, I wanted to use the plus-one approach (Tobin & Behling, 2018) for removing the barrier of a lack of professional learning community amongst the students in ED 520, a fully online course with practicing teachers working on their M.S. in Teacher Leadership. This course focuses on developing an improved understanding of students' language, culture, and learning differences in support of equitable educational opportunities to support learning. In designing this fully online course, it made sense that within the course I would also design course modules, assignments, and assessments with equity and access in mind. As a result, I focused on how students introduced themselves, their teacher roles, and their backgrounds to one another with the goal of supporting the development of a supportive and reflective professional learning community.

Implementation of Revised Student Introductions

When teaching in a fully online context with practicing teachers, a priority is to have students introduce themselves to one another. This is typically done by asking students to introduce themselves on the discussion board using written text to describe their personal and professional backgrounds, as well as the strengths and experiences they bring to their teaching. This is helpful, but it is not multimodal, and there are limitations as to what and how students can share. There is also little student voice present when these discussion board posts are written and shared. Even when students are asked to respond to their course colleagues, responses are often superficial, as they quickly scroll through their peers' written introductions.

Using the UDL principle of engagement to provide multiple means of engagement, with the goal of developing expert learners that are purposeful and moti-

vated, I focused on fostering collaboration and community among the students in my course with the intent to "Construct communities of learners engaged in common interests or activities" (CAST UDL Guideline 8, Checkpoint 8.3). Using the plus one approach (Tobin & Behling, 2018), I decided to model my own instructor introduction using digital storytelling. Using the freely available video maker Animoto (www.animoto.com), I developed an instructor introduction that detailed my own story and outlined how I came to do the work that I do in teacher and leadership education, along with my background and related experiences that inform my identity and who I am as an individual and educator.

I revised my student introduction assignment from a static discussion board post to one that provided multiple opportunities for engagement, drawing on multiple means of representation. Students were provided with multiple options for sharing their student introductions, from video maker tools (e.g., Adobe Spark, Animoto) to presentations (e.g., Prezi, Google Slide) and graphic design tools (e.g., Piktochart, Canva). Each of these modalities provided opportunities to embed various multimodal elements, including images, photographs, voice, and even video clips. The revised student introductions supported multiple elements of UDL, including multiple means of action and expression by providing options for expression and communication through multiple tools for construction and composition (CAST UDL Guideline 5, Checkpoint 5.2), while supporting the UDL principle of engagement to foster collaboration and community.

Impact on Student Professional Learning Community

The adaptations implemented with the student introduction assignment supported student learning, engagement, and connection to the course. Through analysis and reflection of students' introductions and peer responses, there is evidence that their level of buy-in and connection to peers within the course were both enhanced. By including a strong sense of student voice through multimodal learning opportunities, students are able to engage and connect with one another in meaningful ways, fostering a sense of collaboration among students and supporting a professional learning community. By focusing on the principle of engagement and using the plus one approach, there is evidence of a positive impact on student learning through implementation of the revised student introduction assignment.

FIGURE 9

Applied Practices Based on the UDL Guidelines for Student Introductions in an Online Course for Teachers

UDL Guidelines			
	Engagement	**Representation**	**Action & Expression**
Access	**Recruiting Interest**	**Perception**	**Physical Action**
	7.1	**1.1**	**4.1**
	7.2	**1.2**	**4.2**
	7.3	**1.3**	
Build	**Sustaining Effort & Persistence**	**Language & Symbols**	**Expression & Communication**
	8.1	**2.1**	**5.1**
	8.2	**2.2**	**5.2 ✓**
	8.3 ✓	**2.3**	**5.3**
	8.4	**2.4**	
		2.5	
Internalize	**Self-Regulation**	**Comprehension**	**Executive Functions**
	9.1	**3.1**	**6.1**
	9.2	**3.2**	**6.2**
	9.3	**3.3**	**6.3**
		3.4	**6.4**
Goal	**Purposeful & Motivated**	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

Note. Adapted from *Universal Design for Learning Guidelines Version 2.2* (CAST, 2018).

Next Steps

The next steps are to continue collecting evidence of the impact on student learning by collecting data from across the Spring 2020 semester for the fully online ED 520 course. By analyzing and reflecting on student feedback, course engagement, and completion of assignments (many of which, are collaborative) implementing UDL principles can be an engaging way to include all students and provide equitable learning for practicing teachers that are not able to come to campus for face-to-face courses.

From Confusion to Competence: Using UDL to Scaffold Student Learning

Joan Nicoll-Senft

"During our first seminar class, you reviewed an academic language resource. Is it on Blackboard Learn? If it is, I cannot find it. If it is not on Blackboard Learn, is there a way I can look at it again?"

"I am struggling to understand what is expected in some of the sections of the edTPA Handbook and would like some guidance."

"Sorry for all the questions. I just want to make sure that I am staying on task with all the pieces of student teaching and edTPA."

"Me bothering you again. I'm having a hard time finding the thinking organizers on Blackboard Learn. Could you please point me in the right direction?"

Introduction and Context

I teach a one-credit hybrid seminar course that accompanies student teaching for graduate-level special education teacher candidates. Emails like these have increased considerably over the past few years since the Connecticut State Board of Education (CSBE) officially adopted the edTPA as a requirement for all initial certification teacher candidates in Connecticut. edTPA is a performance-based, subject-specific, performance assessment that measures the skills and knowledge that all teachers need from Day One in the classroom (http:edtpa.aacte.org/faq#51). The edTPA portfolio consists of a planned unit of instruction, or Learning Segment, a video of the candidate teaching one or two of the lessons within the Learning Segment, and three reflective commentaries. Candidates' edTPA portfolios are submitted and scored nationally. Effective Fall 2019

all initial certification candidates must achieve a specified score to become certified in Connecticut.

There is an exhaustive list of resources and tools to support teacher candidates in the development of their edTPA portfolios, including discipline-specific handbooks, support guides for candidates, submission guidance documents, video compression manuals, and thinking organizers designed to scaffold teacher candidates' reflective commentaries. Prior to this UDL redesign, I organized these resources in folders on our university's course management system, Blackboard Learn. However, the rigor of edTPA and the sheer volume of candidate support materials coupled with the sharp learning curve of student teaching creates considerable confusion for students. As a result, students spent valuable time trying to locate resources, time they could have devoted to planning their lessons for student teaching and developing their edTPA portfolios. My time is spent responding to emails, time that I could have devoted to providing actionable feedback on their work. This barrier to learning became the focus of my UDL workshop's final project using the principles of UDL.

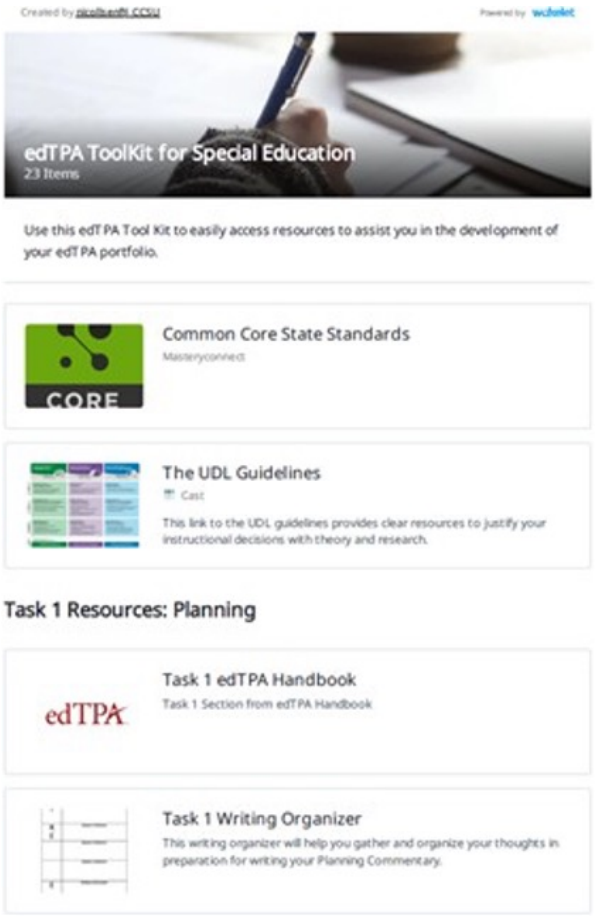
INNOVATION

My goal for the final project of our UDL workshop was to use UDL principles to develop a means of providing my students with "just-in-time" access to the resources and tools designed to support their edTPA portfolio development. I wanted this resource to be easily accessible, interesting, graphic, and user-friendly. Using the UDL framework Principle to Provide Multiple Means of Engagement, I identified Checkpoint 6.3: Facilitate Managing Information and Resources (CAST, 2018). This checkpoint specifically addresses the importance of providing a variety of internal scaffolds and external organizational aids—exactly the kinds that executives use—to keep information organized and "in mind." Examples of such scaffolds include the use of (a) graphic organizers and templates for data collection and organizing information, (b) embedded prompts for categorizing and systematizing, and (c) checklists and guides for note-taking.

Guided by this and other principles of the UDL framework, I created the *edTPA Toolkit for Special Education* (see Figure 11) and a streamlined collection of resources for my students to use in the preparation of their edTPA portfolios. I used a free web-based platform, Wakelet (www.wakelet.com), to gather and organize content (e.g., websites, documents, videos) and create simple graphics for each resource. This collection, referred to as a Wake, allowed students to

easily scroll through all of the resources to find the tool they need at any given moment. *The edTPA Toolkit for Special Education* exports as a .pdf so that students can access these resources easily on a phone, tablet, or computer. A built-in Immersive Reader can also read text aloud, enlarge it, or translate it into 60 languages, which simultaneously addresses Checkpoint 1.1 Offer ways of customizing the display of information (CAST, 2018).

FIGURE 10
edTPA Toolkit for Special Education



This UDL project enabled me to address the barriers my student teachers faced as they developed their edTPA portfolios. In previous semesters I arranged these resources in folders that were cumbersome to navigate when students needed "just-in-time" support. The Wake that I created enables students to eas-

ily scroll through all of the resources to find just the tools they needed to support their edTPA portfolio development.

After receiving feedback from students who recently completed their edTPA portfolio at the end of the Fall 2019 semester, I piloted the use of *the edTPA Toolkit for Special Education* in my seminar course during the Spring 2020 semester. Student feedback has been extremely positive. Students report that the tool is user-friendly and helpful in their portfolio development, and student emails like those I shared at the beginning of this case study have reduced significantly.

FIGURE 11

Applied Practices Based on the UDL Guidelines for From Confusion to Competence: Using UDL to Scaffold Student Learning

UDL Guidelines			
	Engagement	**Representation**	**Action & Expression**
Access	**Recruiting Interest**	**Perception**	**Physical Action**
	7.1 ✓	**1.1 ✓**	**4.1**
	7.2	**1.2 ✓**	**4.2**
	7.3	**1.3 ✓**	
Build	**Sustaining Effort & Persistence**	**Language & Symbols**	**Expression & Communication**
	8.1	**2.1**	**5.1**
	8.2	**2.2**	**5.2**
	8.3 ✓	**2.3**	**5.3 ✓**
	8.4 ✓	**2.4**	
		2.5	
Internalize	**Self-Regulation**	**Comprehension**	**Executive Functions**
	9.1	**3.1**	**6.1**
	9.2	**3.2**	**6.2 ✓**
	9.3	**3.3**	**6.3 ✓**
		3.4	**6.4 ✓**
Goal	**Purposeful & Motivated**	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

Adapted from *Universal Design for Learning Guidelines Version 2.2* (CAST, 2018).

Next Steps

Fundamentally, UDL is about problem solving and how to address learning barriers using innovative design (Edyburn, 2010). While I primarily focused on facilitating the management of information and resources, UDL checkpoint 6.3, this semester, I also incorporated strategies to sustain students' effort and persistence, Guideline 8 (CAST, 2018). I achieved this by incorporating online peer feedback assignments focused on providing students with mastery- oriented feedback (checkpoint 8.4, CAST 2018). My next steps for this course include providing increased opportunities for in-class use and modeling the use of the *edTPA Toolkit for Special Education*, especially at the beginning of the semester. I also plan to increase the frequency of online peer feedback assignments.

Relevance, Choice, and Authenticity for Deeper Learning

Maria Boeke Mongillo

"I liked how you could select different activities based on your interest area and desired kind of work. That makes it kind of challenging but at the same time allows us to go deeper from different perspectives. I also really appreciate the readings being digital and easy to access for portability purposes."

Who are the Learners?

EDL 605/606 Leadership for Teaching and Learning I and II are a set of required paired courses that students pursuing their Sixth Year Certificate in educational leadership take over the course of a fall and spring semester. Completion of the certificate is one of the state eligibility requirements for the Intermediate Administration or Supervision (092) endorsement. The 092 endorsement allows educators to hold administrative positions in school districts including department chair, curriculum coach, director, assistant principal, principal, and assistant superintendent. As such, the vast majority of graduate students who take these classes are practicing pre-K to grade 12 educators.

Our department offers EDL 605/606 to students in two different models, both of which I have taught multiple times over the last six years. In the first, students take the course on a more traditional schedule, meeting face-to-face weekly, with several classes throughout the semester held online. The second model,

which was used in the class described here, meets face-to-face on four Saturdays over the semester from 9:00 to 5:00, with approximately one-hour, asynchronous online sessions on the non-meeting weeks. Generally, students remain in the same course model with the same instructor for the full year. For the Spring 2020 EDL 606 class, I had 17 students, 12 from the fall semester and 5 who joined just for the spring.

What are the Learners Doing?

Working with graduate students in a professional program, I find that I do not have to be concerned as much about getting my students to internalize learning (CAST, 2018). They come to my class as relatively mature learners who understand how to self-regulate, support their own comprehension, and utilize executive functioning (CAST, 2018). As adult learners, they are self-directed and are ready to learn new knowledge and skills that they can apply in their professional or personal lives (Knowles, 1968). My usual format for the online sessions was to assign a single reading or set of readings, have the students create a discussion board post in response to a set of questions about those readings, and then return and respond to several of their classmates' posts. This would present in the online module as a list of steps to complete and a link to the discussion board. While this model did keep the students interacting with the course content, and with each other, between face-to-face meetings, my students' criticism had been that they were not feeling challenged to think deeply or engage in truly meaningful discussions. At times, students noted that the online work was time-consuming and felt like busywork.

With this in mind, I decided to rethink and revise my approach to creating the online learning modules. The first set of changes I made was to apply several UDL checkpoints across all online modules, in hopes that the consistency would remove access barriers for students by having common structures in place. First, I added stated objectives for each module before the numbered steps for what the students needed to do. Having clearly stated objectives gives my students a well-defined rationale for the purpose of the assignment and allows them to see how it can help them in their growth as leaders, thus making the work more relevant (Lieb, 1991). Next, I decided to provide additional options for perception (CAST, 2018). Along with the written directions, I have added a short video of me explaining the online module and provided a transcript of the video as well. For one of the three weeks that I used this new common format, I did not include the video, and I received significantly more e-mail questions from students

about the task they were supposed to do that week. I see this as an indication that having multiple options for students to access information about their online tasks is removing barriers.
For each of the individual weeks, I wanted to further break down access barriers by providing multiple means of engagement, action, and expression (CAST, 2018). The first week, I asked the students to read one common article on effective teaching and then find something on their own that related to the article's main topics. They were able to choose another reading, blog, website, video, image, infographic, cartoon, or any source they found that resonated with them and helped them better understand the article. Their discussion board post was to share their found piece and explain how it further illustrated their thinking about what makes effective teaching and the leader's role in supporting teachers in their work. This varied the methods of response for students (CAST, 2018).

The next week, I again had the students read a common article on adult learning and professional development, but I offered them three choices for the task and product they would create and share on the discussion board. The students commented when we later met in class that they really appreciated having the choice to select their own activity and engage in the discussion board with students who made different choices. By offering choices, students felt more autonomy about their work and were able to select items of more relevance to them and their learning needs and goals, thus helping to recruit interest (CAST, 2018).

The third week, students read three chapters from a common text about some of the practical skills for conducting teacher evaluation, including classroom observation techniques and strategies for identifying areas of teacher growth. The students were to select an observation technique from the text, watch a posted video of a teacher using their chosen observation method to record information, and then select an area of teacher growth based on their observations. As I had intended, students noted this was an authentic learning experience that helped with their engagement (CAST, 2018). Additionally, I heard that students were finding it difficult to know to whom they should respond with 17 students all posting. To minimize this learning distraction (CAST, 2018), I divided the class into four groups, with students responsible for responding only to members of their groups. Students later reported that this was helpful, allowing them to engage more deeply with the content and with other students.

FIGURE 12

Applied Practices Based on the UDL Guidelines for Relevance, Choice and Authenticity for Deeper Learning

UDL Guidelines			
	Engagement	**Representation**	**Action & Expression**
Access	**Recruiting Interest**	**Perception**	**Physical Action**
	7.1 √	**1.1 √**	**4.1 √**
	7.2 √	**1.2 √**	**4.2**
	7.3 √	**1.3 √**	
Build	**Sustaining Effort & Persistence**	**Language & Symbols**	**Expression & Communication**
	8.1 √	**2.1**	**5.1 √**
	8.2	**2.2**	**5.2 √**
	8.3	**2.3**	**5.3**
	8.4	**2.4**	
		2.5	
Internalize	**Self-Regulation**	**Comprehension**	**Executive Functions**
	9.1	**3.1**	**6.1**
	9.2	**3.2**	**6.2**
	9.3	**3.3**	**6.3**
		3.4	**6.4**
Goal	**Purposeful & Motivated**	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

Adapted from *Universal Design for Learning Guidelines Version 2.2* (CAST, 2018).

WHAT DO I DO NEXT?

As I reflect on how I will continue to apply UDL to the online portions of this course, my immediate thought is to address two more barriers students commonly cite. Sometimes students find they have no one to respond to on the discussion board. I have been simply posting work on a Friday morning and asking that it be completed by the following Wednesday. Students who post early in

that time frame find themselves having to check back multiple times in order to complete their required responses to others. I am planning to try having the online assignments due over two weeks, with the initial post due one week and the discussion board the following. The other is that I have the readings in their own section on Blackboard. Students have commented on how it would be easier to have them embedded in the online modules to prevent them from having to go back and forth between Blackboard sections. This is an easy fix that will allow students more time to focus on deeper learning.

In the long term, I am thinking about how to apply this to my other hybrid courses. The clear objectives and video introductions will be easy to utilize in other courses. I am also contemplating how I can gain a deeper understanding of the capabilities of the technology we have at CCSU, and how I can support students in growing theirs so they can apply it to their work as students, teachers, and leaders in practice.

Recommended Resources

College STAR https://www.collegestar.org. College STAR is a grant-funded project that provides online UDL modules and opportunities for networking and research for college faculty.

UDL on Campus http://udloncampus.cast.org. UDL On Campus is a collection of resources developed by CAST geared towards multiple stakeholders within postsecondary institutions, including instructional designers, faculty, policy makers, and administrators. The purpose of the site is to offer an understanding of Universal Design for Learning (UDL) in higher education and contains four sections: 1) UDL in Higher Education, 2) Course Design, 3) Media and Materials, and 4) Accessibility and Policy. National Center on UDL.

UDL Center http://medium.com/udl-center The UDL Center supports the effective implementation of UDL by connecting stakeholders in the field and providing resources and information on UDL implementation and research.

DO-IT http://www.washington.edu/doit. The DO-IT (Disabilities, Opportunities, Internetworking, and Technology) Center is dedicated to empowering people with disabilities through technology and education. It promotes awareness and accessibility—in both the classroom and the workplace—to maximize the poten-

tial of individuals with disabilities and make our communities more vibrant, diverse, and inclusive.

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