VOLUME THREE

Systematic **Reflections**

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

CENTRAL CONNECTICUT STATE UNIVERSITY

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2023

Table of Contents

Dear Colleagues,

I am more than delighted to introduce you to ***Systematic Reflections, Volume 3***, the peer-reviewed journal published by Central Connecticut State University's Center for Teaching and Innovation.

As a teaching and learning community, we have navigated the demands and expectations for student success in a post-pandemic world. Quite simply, the world does not look the same and our responsiveness as educators has required us to prioritize accessibility, inclusivity, and wellness. Volume 3 shares some of our colleagues' work in each of these categories helping us recognize and grow the value of our students - and ourselves- as unique individuals.

Please join me in recognizing the work of our faculty authors. Their contribution to our thought leadership on meeting the needs of our students is both needed and appreciated. Thank you to each of them for their time and contributions to our Central community.

Lastly, let's please acknowledge the work of our peers serving on the Center for Teaching and Innovation Advisory Board. We value your service in advancing teaching and community on our campus and for the students we serve.

Dr. Kimberly T. Kostelis
Provost & Vice President of Academic Affairs

The perspective of our faculty invites us to reflect and consider opportunities to impact teaching and student success - essential themes of the work we do every day at Central Connecticut State University. In this issue of the Center for Teaching & Innovation's ***Systematic Reflections,*** we hear from a broad range of colleagues and a student, now alumna, who were inspired to share their perspectives with our community.

Our world is a changing place and our responsiveness to each other and to learners is essential to fulfill our institution's mission. In promoting accessibility, understanding, respect, and appreciation, we can truly be "a community of learners" and we can "prepare (today's) students to be thoughtful, responsible, and successful citizens."

With thanks to each of our contributors, our peer reviewers, the Advisory Board for the Center for Teaching & Innovation, we proudly share ***Systematic Reflections, Volume 3,*** 2023.

Dr. Steven Minkler, Dean, School of Engineering, Science & Technology
Cathleen D. Donahue, Chair, Center for Teaching and Innovation Advisory Board & Part-Time Faculty, Marketing Department

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Finding a Gender-Equitable Balance in Course Design in a High Anxiety Gen-ed Astronomy Course

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Arthur Bell (Student, Physics and Engineering Physics Department)

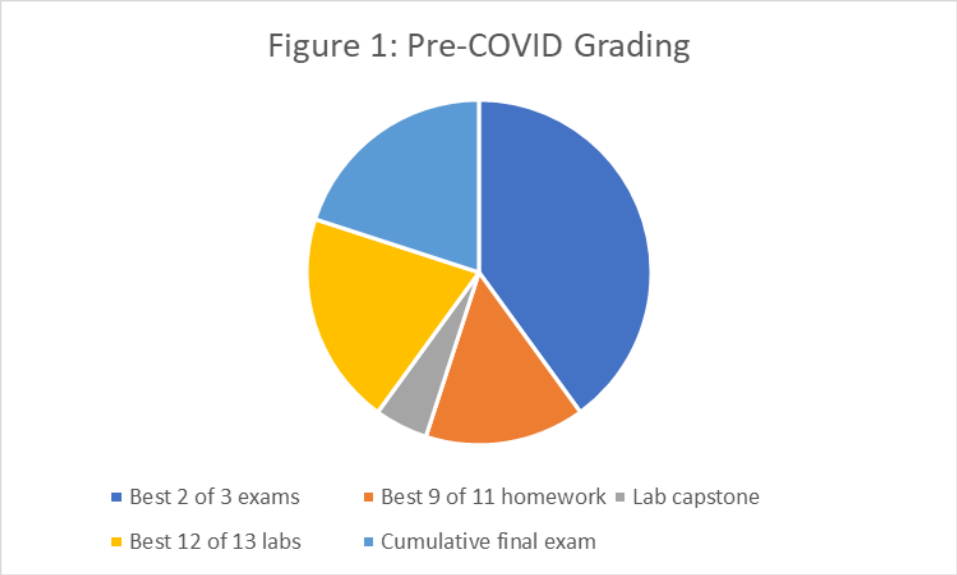
ABSTRACT

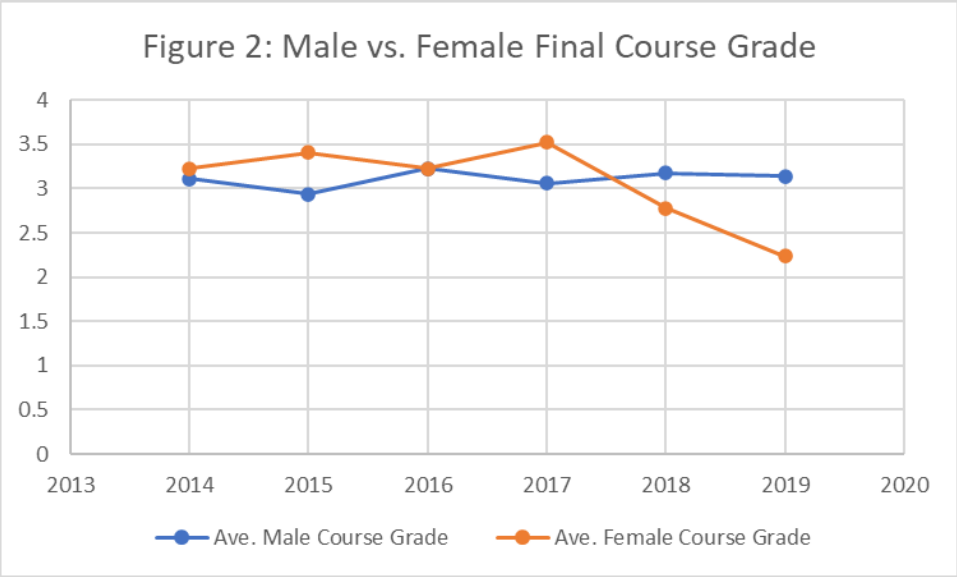
Research has demonstrated a gender component to science and math anxiety, as well as exam anxiety, especially surrounding high stakes exams in science courses. Pedagogical shifts related to COVID-19 provided the impetus to move away from reliance on high stakes exams in a lab-based general education astronomy course, resulting in equitable student achievement on assessments and in the course overall over the course of the pandemic while teaching was mainly online. These shifts did not prove as beneficial in the on-ground classroom post-pandemic, leading to further modifications in assessments. In the end, class size proved to be the most important variable in predicting student success.

OBJECTIVES

Prior to the COVID-19 pandemic, the Spring semester lecture + lab algebra-based course AST 209 Stellar and Galactic Astronomy assessed student learning through a combination of high stakes in-class exams (best 2 of 3 counting for 20% each of total grade plus a cumulative final exam [20%]) and low stakes assignments (homework [15%], weekly labs [20%], and a lab capstone assignment [5%]), as shown in Figure 1 below. The students – most taking the course to satisfy the general education lab science requirement – frequently voiced anxiety over both the qualitative scientific content and quantitative mathematical calculations. Between 2014-17 female students achieved final course grades as high or higher than their male counterparts (on a 4-point scale), despite both anecdotal evidence from the students and published research that science and math anxiety are more common among female students (Udo et al., 2004; Khasawneh et al., 2021) and research suggesting that females underperform on high stakes science exams (Ballen et al., 2017; Saleh et al., 2019). However, in 2018 and 2019 female students' achievement dropped by 1/3-2/3 of a letter grade although there had been no change in the course itself, as noted in Figure 2 below.

The rush to online learning in March 2020 caused by COVID-19 led to modifications in assessment strategies by necessity. This afforded the instructor (Kristine Larsen) an opportunity to experiment with alternatives that were thought to have the potential to combat the alarming gender disparity in student success noted over the previous two years.





METHODOLOGY

CCSU shifted to online learning as of our March Spring Break in the Spring 2020 semester. Given the lack of time available to make this transition, it was decided to change the overall course and grading structure as little as possible. Due to the mathematical nature of this course as well as available technologies, an asynchronous format was adopted. Lecture PPTS had always been posted for student use; these were narrated and posted in both video and PPT formats for students to use as their "lectures." The mathematical examples were pulled out of the standard lectures and separate "math minute" minilectures were posted. An example can be found at https://www.youtube.com/watch?v=APC1EJ8mc6s.

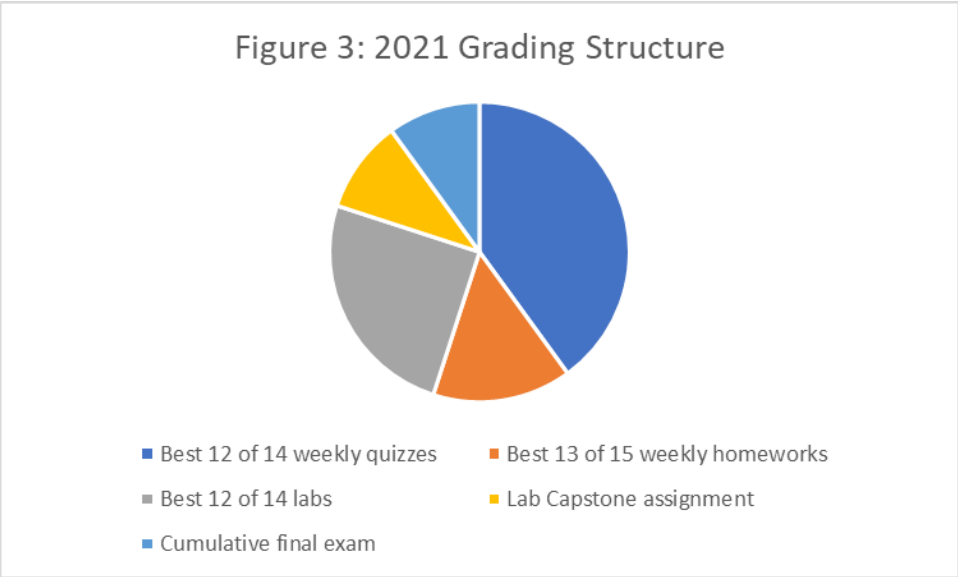
Lab assignments in the second half of the semester already focused on data analysis, with the hands-on/equipment-based assignments (mainly on light and telescopes) having been fortuitously done prior to Spring Break. The same was true of the lab capstone assignment, in which each student is

assigned a specific variable star (a star that changes brightness over a period ranging from hours to months) and applies quantitative analysis techniques utilized throughout the semester to calculate and summarize the star's major properties (Larsen, 2017). Students could submit their math-based homework problems by scanning and uploading the work to the course's Blackboard shell, allowing students the freedom to continue submitting handwritten work.

The exams proved the most problematic aspect of the course to reproduce in the new online format. Previously they had consisted of 75% open-ended questions and 25% math problems similar to the homework. It was decided to forgo the cumulative final exam and distribute the points among the other assignments. For the remaining second and third exams, the section of open-ended questions was turned into multiple choice questions (divided into sections by topic, each section consisting of ten questions chosen at random from a test bank, 15 minutes per section). For the math-based section, students were given three randomly selected problems to complete in 15 minutes. Their answers were submitted to Blackboard within the 15 minute-window; students afterwards uploaded scans or photos of their scratch paper so that partial credit could be granted if their final answer was incorrect.

Despite the uncertainties of the semester, the modified format appeared to be successful (as measured by students' final course grades), with no difference between male and female students' final grades (3.07 versus 3.05, respectively).

CCSU developed nearly 40 hi-tech HyFlex classrooms over Summer 2020; therefore, the Spring 2021 iteration of the course took advantage of this technology. Students could either register for a limited number of on-ground seats or attend in a strictly virtual modality (either watching a live broadcast of the on-ground lecture or its recording). In order to maintain parity in the assessments of both groups, the previous high stakes course exams were changed to low stakes weekly quizzes (15 multiple choice questions in 15 minutes, selected from a test bank and written so that answers could not be "Googled"). However, the overall weight of the quizzes was equal to that of the total of the two best in-class exams in the pre-pandemic distribution (40%). The cumulative final exam was conducted in an online format similar to the exams of the 2020 semester: 25 multiple choice questions with questions selected from random test blocks by topic plus five problems assigned individually to students (students uploading an image or scan of their scratch paper). The weight of the final exam towards the final course grade was cut in half, from 20% to 10%; the remaining percentage was distributed evenly between the labs and variable star capstone, assignments that, although highly mathematical in nature, historically had higher class averages than the final exam. The lowest two lab grades were dropped instead of the normal one; the syllabus advertised that the lowest two weekly quiz grades would be dropped, although it was later decided to drop the lowest three, to compensate for students who had computer issues or were unable to have access to a make-up quiz. The overall grading scheme (as advertised in the syllabus) is shown in Figure 3 below.



A new intentional "chunking" of course material (one week per major topic) drew upon research by Gobet et al. (2001) suggesting that this better aligns with how the human mind effectively processes information; in addition, the shift to low stakes assignments in a non-major science course was anticipated to enhance student success (Pearson III & Rohrbacher, 2020; Shay & Pohan, 2021), especially among female students (Cotner & Ballen, 2017).

RESULTS

Final course grades rose in Spring 2021 as compared with Spring 2020, especially among female students, with an average of 3.04 for male students, 3.16 for female students. An offhanded comment to students about how the course had previously been taught (relying on high stakes exams rather than weekly quizzes) led to a discussion of student preferences. Based on this discussion, and the overall success of the students in this course, it was decided to keep the format for the Spring 2022 semester, which was taught completely on-ground. The only difference in grading was a slight increase in the weight given to the homework (from 15 to 20%) and a corresponding decrease in the relative weight of the lab assignments (from 25% to 20%). The lowest three (instead of two) weekly quiz grades were advertised to be dropped. In actuality, the lowest four were dropped.

There were, however, two major differences between the 2021 and 2022 cohorts. Firstly, the lack of a HyFlex option meant that lectures were not recorded. Therefore, while students still had access to the PPT files there were no narrations – with the exception of the "math minute" videos, which had proven so successful that they became an integral part of the material posted on the Blackboard course shell. Secondly, as noted anecdotally by students and faculty at many institutions, student attendance, motivation, and engagement decreased sharply in the Spring 2022 semester (McMurtie, 2022; Smith, 2022; Territo, 2022). As a result, the half to sometimes two-thirds of the class who failed to attend a given class period could not use videos to learn the material, but instead tried to get along with static PPTS that contained, at best, half of the material covered in class. In addition, the class was scheduled for a large lecture hall (larger than was actually needed for late-pandemic spacing); spreading 20-30 students throughout a 90-seat lecture hall is not conducive to creating a learning community or an

environment that facilitates participation. It was particularly easy for students to 'hide' in the back of the room and disengage, being physically in the room but not 'present.'

Fortunately, the University Learning Center hired a student minoring in Astronomy as one of its official online tutors that semester (Arthur Bell, and an aggressive advertising campaign ensued, with students repeatedly encouraged to take advantage of this free service. Over the course of the semester, seven of the 30 students who completed the course sought tutoring. The breakdown by gender was 3 of 20 males and 4 of 10 females. Of the 17 individual tutoring sessions, 14 (82%) were booked by female students. In particular, while no male students booked more than a single tutoring session each (and their sessions typically lasted 10 min.), one female student (who self-reported sporadic attendance in class) booked seven full sessions (30 min. each) and another female student booked five full sessions. It was notable (although not unexpected) that students uniformly requested help on the math portion of the course regardless of gender. The tutor noted that female students demonstrated lower confidence with their own ability/understanding during the tutoring sessions, and as previously noted, their sessions lasted longer.

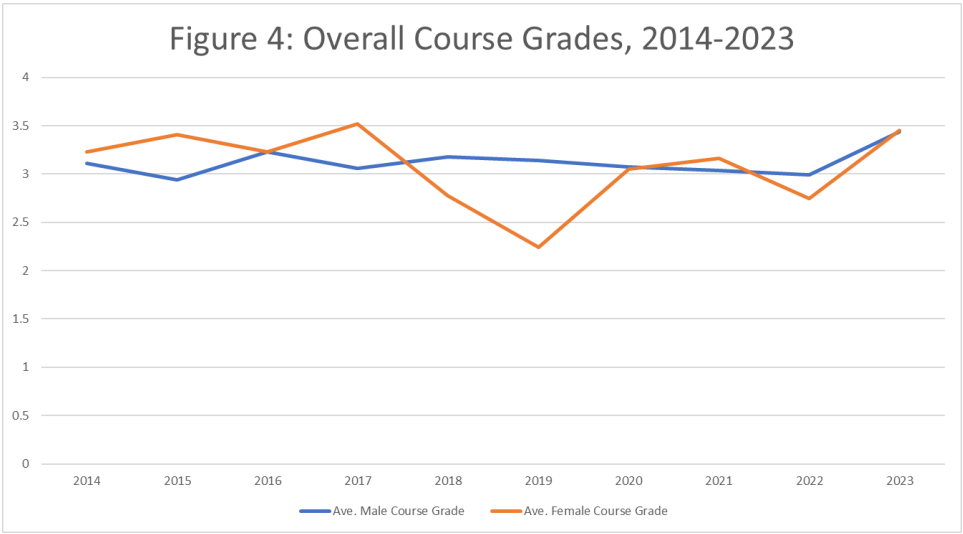
The reduced attendance but significant use of free peer tutoring were considered variables that could potentially cancel each other out in terms of student success, but the results do not bear that out. The overall average course grades for Spring 2022 were 2.99 for male students and 2.75 for female students (despite their greater use of tutoring), reflecting a loss of the gains achieved over the pandemic.

These disappointing results demonstrated that there was still work to do in finding the best balance in course design. While the online quiz format worked well for ease of grading, the gender difference in quiz averages (81.6 for males, 73.4 for females, on a 100-point scale) was larger than in the 2021 semester (76.9 and 74.2 respectively). This result, as well as the gender difference in the scores of the open-ended format cumulative final exam (67 for males, 73 for females), aligns with the findings of Stanger-Hall (2017) that female students in introductory science classes perform better on critical reasoning questions than multiple choice ones.

For Spring 2023 it was decided to return to the three in-class higher stakes exams (dropping the lowest grade), but with the additional scaffolding of the multiple-choice quizzes as optional (no-point) formative assessments. It should be noted that there had always been detailed study guides provided for all in-class exams, including the cumulative final. It is unknown how many students took advantage of these resources. The increased weight for the lab exercises and variable star capstone (as compared to the pre-pandemic weighting system) was kept, as was the reduced weight for the cumulative final exam. With an added emphasis on the availability of free tutoring, it was anticipated that the increased anxiety of the fewer, longer open-ended exams would be more than balanced by a reduction in anxiety through additional preparation for the exams, leading to an overall improvement in exam and overall course grades. However, the optional online quizzes were only utilized by a third of the students to prepare for the first exam, with the number dwindling with each successive exam. Despite an increased advertisement for the peer tutoring (including having the tutor visit the class to introduce himself), only one student scheduled a single peer tutoring session during the semester, for help on the capstone.

There was, however, another unintended change in the structure of the course in 2023, the course capacity. Due to faculty load concerns, there was a single lab section, so the entire course was capped at 24 students (the number of seats in the lab room), and 21 students completed the course. The class was

held in a small (24 seat) classroom with forward-facing tables rather than individual desks (the normal set-up for most years) or the large lecture hall (as in 2022). The smaller room gave the class a much more intimate feeling; students could not 'hide,' and non-attendance was obvious. The smaller venue enhanced in-class participation as well. Despite there being about the same number of students in the smaller classroom on a given day as there had been the large lecture hall (with its lower attendance rate) the year before, the 2023 students were far more likely to ask and answer questions during class. An increased participation by female students in particular was noted, agreeing with the results of Ballen et al. (2019). The final results for this semester were greatly encouraging. Average scores on the in-class cumulative exam were 80/82.6, skewed towards the female students. As seen in Figure 4, not only was gender parity resumed in overall course grades (3.44/3.45) but these scores were the highest in many years.



CONCLUSIONS

This paper has reviewed the ongoing search for a gender-equitable course structure in an algebra-based general education astronomy course that promotes student success. The COVID-19 pandemic provided the impetus for exploring new pedagogies, some of which proved more successful online than on ground. While no 'silver bullet' has been discovered, through a process of trial-and-error, guided by current research, the following 'best practices' for this course have emerged:

1) Higher-stakes in-class exams with open-ended questions can be successful with the availability of scaffolding materials, including videos, practice questions, and tutoring (which individual students may or may not take advantage of as their needs change).

2) Similarly scaffolded cumulative final exams with open-ended questions can also have the intended effect of focusing and assessing student learning, especially if some of the anxiety is removed by reducing the relative weight in the overall course grade.

3) As has been discussed in the literature (e.g., Odom et al., 2021), class size is among the most important predictors of student success in introductory science courses, especially for women. For this reason, AST 209 will be limited to the same single-laboratory section size in Spring 2024, with no

further changes to the class structure. If student success remains high (and gender equitable), the course structure will be considered a (momentary) success.

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Teaching Racial Justice: A Radical Pedagogy after #Black Lives Matter

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Amily Marie (Graduate student, English Department)

There is a serious crisis in education. Students often do not want to learn and teachers do not want to teach. More than ever before in the recent history of this nation, educators are compelled to confront the biases that have shaped teaching practices in our society and to create new ways of knowing, different strategies for the sharing of knowledge. We cannot address this crisis if progressive critical thinkers and social critics act as though teaching is not a subject worthy of our regard—bell hooks, 1994.

INTRODUCTION

The above observation of bell hooks that there "is a serious crisis in education"—an observation from nearly 30 years ago—seems uncannily to anticipate, even to describe, our current crisis in education. Now three years into a global pandemic, contingent faculty at the university level and teachers in grades K-12 seem to have taken a step back from education as a profession because they feel underappreciated, burned out, and unprotected from assaults that range from teaching critical race theory to maintaining basic rights of our LGBTQ+ communities. Further, biases against educators assume we are unmotivated, uncreative, and unthinking.

When hooks argued in 1994 that "we cannot address this crisis if progressive critical thinkers and social critics act as though teaching is not a subject worthy of regard" (hooks, 1994, p. 12), she called upon educators to act in a way that is needed now more than ever before. In this groundbreaking work entitled *Teaching to Transgress*, hooks focuses as much on the significance of teaching as she does on the significance of transgression, of finding new ways to reach students beyond such dominant pedagogical paradigms as lectures and labs. This essay wonders what "new ways of knowing" and "different strategies for … sharing knowledge" look like in 2023 at a four-year regional, teaching comprehensive institution like Central Connecticut State University in the wake of a pandemic involving not only a global health crisis but also institutional racism, police brutality, anti-Asian hate, housing insecurity, and an assault on women's reproductive rights. We are following the lead of bell hooks, in other words, to call attention to the significance of teaching—and not just teaching in general, but rather progressive teaching—and transgressive teaching, a kind of teaching that we tried to model in spring of 2022 with the second iteration of Racial Justice, a brand-new class at CCSU created out of the chaos of the summer of 2020.

In the Spring of 2022, Professor of English and founding member of the Racial Justice Certificate Steering Committee, Aimee Pozorski teamed with Amily Marie, English MA Graduate Research Assistant, to teach Racial Justice 200, which had only been offered one time before, in the Fall of 2021 with Dr. Audra King of Philosophy. We realized, from the beginning, that we needed to teach the topic of the course—racial justice—in a way that *also advocated for* racial justice. In other words, the course needed to address racial justice in both content and form: How we taught, we realized, was as important as what we taught.

We are proposing here a radical pedagogy that not only comes after—but also is modeled after—#BLM, meaning that we hope to describe a model for pedagogy in the time *after* 2013, when Alicia Garza, Patrisse Cullors, and Opal Tometi created a Black-centered political movement following the acquittal of George Zimmerman in the shooting death of Trayvon Martin. But we also mean that we have modeled our pedagogy on the tenets of Black Lives Matter: a racial justice movement that affirms the lives—and centers the voices—"of Black queer and trans folks, disabled folks, undocumented folks, folks with records, women, and all Black lives along the gender spectrum" (Garza, Cullors, & Tometi, 2013).

Drawing on such founding texts as the Black Lives Matter statement of purpose, in addition to the pedagogical models described in bell hooks's *Teaching to Transgress*, and Shoshana Felman's "Education and Crisis, or the Vicissitudes of Teaching" we offer four important principles for radical, racial-justice oriented pedagogy: 1) listen to students and guest speakers from underrepresented communities and center their voices; 2) offer flexible assignments and teaching modalities; 3) organize multiple high impact practices (HIP) such as museum visits, theater experiences, and attendance at high profile lectures; 4) show vulnerability and compassion inside and outside the classroom. Ultimately, we would like to propose, this model is not so radical after all – and certainly does not need to be specific to racial justice or EJI teaching. What would it mean if all our classrooms looked like this in the wake of a pandemic and global trauma in the 21st century?

RJ200

Since this was the first time either of us had taught the course, we needed to establish some common goals. We decided early on that centering student voices would be a primary objective and that while we understood we needed to convey such skills as critical thinking and reading and writing with purpose and clarity, it would be more beneficial for students to find their own approaches to the material rather than telling them what we thought first.

This kind of skill building started in the classroom every day even before the official start time of the class arrived. At the beginning of class, as students settled in, we gave students space to informally discuss relevant current events and to reflect on what they had been reading in the news for any given day. We soon realized that students were able to connect the discussions in class—discussions of the racial justice writings of such authors as Eddie Glaude, Claudia Rankine, and Ta-Nehisi Coates—with current events, examples from yesterday's news. It felt good, reparative, and sometimes even rejuvenating to share laments and frustrations in response to the news cycle. The students' impassioned responses to the news cycle alongside literary and sociological texts emphasized our need to discuss the significance of justice movements inside and outside the classroom. Often discussions included unfair treatment of Black people, trans people, or women that had taken place since the previous class meeting or session. Students were invited to share their thoughts, opinions, or further information on matters they felt strongly needed to be addressed. Engaging in this kind of discussion encouraged students to stay current on global news and to witness the relevance of the material covered in class.

A second approach we implemented to help students develop critical thinking and communication skills was an opening segment to every class, which we called "Art Matters." "Art Matters" tasked each student with presenting a cultural or artistic artifact from their daily lives that could lead us to a new

understanding of racial justice movements in the U.S. and the world. Each student (in a class capped at 35) was required to conduct one "Art Matters" presentation during the semester. This consisted of a 10-minute demonstration on an art piece that addresses the topic of racial justice. We defined "art" broadly, so students could choose from a wide range of music videos, television shows, paintings, or other forms of expressive media that captures the subject of racialized oppression. The presenter began by explaining why they chose their particular piece and ended with room for the class to ask questions and engage in further discussion. bell hooks (1994) encourages this very kind of classroom dynamic. She argues: "As a classroom community, our capacity to generate excitement is deeply affected by our interest in one another, in hearing one another's voices, in recognizing another's presence" (hooks, 1994, p. 8). In a class whose primary topic was racial justice, we created a space where students felt not only comfortable but also passionate, even *com*passionate, sharing not only their academic knowledge but also their lived experiences and personal identities. We had students from diverse backgrounds and varying sexual orientations and gender identities. This openness and diversity allowed for a welcoming learning environment that we hope continues outside of the class as well.

In order to decenter the classroom even further, we invited several guest speakers from different departments and institutions to visit the classroom and present on racial justice/injustice through the lens of their field of expertise. Dr. Audra King from the Department of Philosophy presented on Black feminist and intersectional philosophy. Dr. Beth Merenstein from sociology provided a foundational overview for the structural and institutional racism that exists today. Aishah Stovall, a former graduate student at CCSU and current Law Student at UCONN presented on the ways that the Harlem Renaissance reflect racial justice movements today. Lastly, Dr. Eddie Glaude, a Princeton Professor and author with a significant media presence spoke about his latest book, *Begin Again* (2020): an argument about how reading James Baldwin can help us as a culture process this post-Trump moment in American politics. Each of these scholars from varying academic fields and diverse personal backgrounds allowed for a rich, diverse, interdisciplinary environment for students to learn. bell hooks writes, "Pedagogical practices have emerged from the mutually illuminating interplay of anticolonial, critical and feminist pedogamies" (hooks, 1994, p. 10). Taking an intersectional approach, RJ200 attempted to connect all these fields to present how racial justice is not simply something we learn about—that it is not just a field of study—but rather it is something we do every day by engaging in conversation with people from a variety of backgrounds and points of view.

To reinforce this approach, weekly assignments included a blog response to a question that was relevant to discussions in class and current reading material. These questions were not decided prior to the semester starting but organically arose each week to engage the class. Discussion on the blog took up such sensitive issues as personal experience with microaggressions, observations of white privilege at work, and personal loss as a result of police violence against Black bodies. Students were encouraged to share personal examples and opinions while simultaneously drawing from the texts, guest speakers, and "Art Matters" presentations.

Three texts were assigned for the class, all offering different angles on the same subject of racial justice. Through Glaude's *Begin Again*, we learned to read James Baldwin anew and to come to terms with our pandemic moment in all senses of the world; through Rankine's *Just Us: An American Conversation* (2020), we learned about how white privilege operates every day whether we notice it or not; through Coates's *Between the World and Me* (2015), we learned about the value of Black spaces, Black art, Black intellect, and Black bodies that still so often become victim to institutionalized racism

ingrained in the origins of our country. Rather than lecture, we took turns pointing out passages from the reading assignments that resonated with each other and with our students, and then asked them to unpack them in real time. The beauty of every class is that students read things differently and explained why; they pulled out specific words, images, phrases, and moments that helped illuminate an author's argument.

At the end of every class, we often found ourselves saying, "I hadn't thought of that before," revealing that literary moments hit us all differently, and that we benefit from learning from multiple points of view. This is, in part, what we think hooks means when she talks about "radical pedagogy": It is brave, and it is risky because you never can anticipate what a student is going to say in class and how everyone else will react. With our respective backgrounds in psychoanalysis and counseling, we found that these risks paid off and we could mitigate any possible bad feelings by asking all students to speak their minds.

THEORY

Just as bell hooks's focus on transgression, passion, interaction, and empathy in the classroom have proven an exemplary model for us, so too has the work of psychoanalytic teachers from the 1990s guided our teaching practice. One teacher in particular is Shoshana Felman, who describes an experience she had teaching Holocaust narratives, film, and memoirs to a class at Yale University in the 1990s. She reflects on how her students bore evidence of trauma themselves, trauma from reading and discussing such graphic representations of human brutality, and their need for a witness to their confusion and angst as a result of this exposure. Felman writes:

> In much the same way as the psychoanalyst serves as witness to the story of the patient, which he then interprets and puts together, so did I return to the students–in their own words–the narrative I had compiled and formed of their own reactions. [....] My own testimony to the class, which echoed their reactions, returning to them the expressions of their shock, their trauma and their disarray, bore witness nonetheless to the important fact that their experience, incoherent though it seemed, *made sense*, and that *it mattered*. (Felman, 1992, pp. 54-55)

Although Felman has this experience in the 1990s and published her reflections in the important volume, *Testimony: Crises of Witnessing in Literature, Psychoanalysis, and History* from 1992, these words, like hooks's words, seem as if they could have been written today. Certainly, they are more relevant today than ever. In teaching such difficult material as police brutality, incarceration, internalized racism, and even murder, we realized that we needed to bear witness "to the importance fact that their experience …. made sense, and that it mattered" (to borrow from Felman). Some students had strong reactions to the reading material alone—not having experienced directly the scenes that Glaude, Rankine, and Coates discuss. Other students had strong reactions based on their personal experiences as well. We learned early on that we had to make space for that—to acknowledge it and to encourage the entire class to acknowledge it. With a focus on bearing witness in the classroom, we modeled a practice of non-mastery, turning the entire class over to the students in some cases, to help them put together their own narratives of grief, loss, and rage.

In this way, we have also taken the lead from a more contemporary philosopher and educator, Felicia Rose Chavez, who writes in *How to Decolonize the Creative Classroom* that effective classrooms 1) "Design democratic learning spaces for creative concentration"; 2) "Recruit, nourish, and fortify students of color to best empower them to exercise voice"; and 3) "Embolden every student to self-advocate as a responsible citizen in a globalized community" (Chavez, 2021, pp. 7-8). By modeling empathy and witness in this democratic setting, we hope, all students, but especially students of color, felt heard, leading all of us to form a community in the classroom that ideally extends to what Chavez terms, "the globalized world." The three most important concepts that link all of these thinkers—thinkers who have influenced our teaching practice—are interaction, empathy, and bearing witness: or, put another way, an "affirmation of humanity."

This returns us to the #BLM Statement of Purpose that we didn't realize was such a force in our own teaching until after the fact, until we put the theories from the 1990s of hooks and Felman next to the contemporary moment, with Chavez leading the way. The work of Chavez in particular echoes the founding documents of the Black Lives Matter movement, established by Alicia Garza, Patrisse Cullors, and Opal Tometi in 2013 in response to the acquittal of the police officer who killed Trayvon Martin. Its primary objective is to create "a global network that affirms the humanity of all Black people who are in the face of oppressive, white supremacist systems." Like the Black Lives Matter movement that "affirms the lives of Black queer and trans folks, disabled folks, undocumented folks, folks with records, women, and all Black lives along the gender spectrum," so too did our class, trying to do our best to turn these values into practice every day in the diverse classroom that also included Black folks, queer folks, trans folks, disabled folks, and white, brown, and black women from all socioeconomic backgrounds.

PRACTICE

Our experiences with this class, guided by thinkers from the 1990s to the present, have led us to recommend some simple practices for a radical pedagogy in the age of racial justice movements. These practices, which will be discussed more thoroughly below, include:

1. Listen to students and guest speakers from underrepresented communities and center their voices, what we are calling "multi-vocal practice."

2. Offer flexible assignments and teaching modalities, referred to below as "flexibility and fluidity."

3. Organize multiple high impact practices (HIP) such as museum visits, theater experiences, and attendance at high profile lectures ("High Impact Practices").

4. Show vulnerability and compassion inside and outside the classroom.

From bell hooks to Shoshana Felman to Felicia Rose Chavez, and the Black Lives Matter movement, we have learned the importance of listening over speaking, of witnessing over mastery. Equally parts trauma theory and the sociology of disenfranchisement, our pedagogy is radical not for what it does do, but for what it doesn't: impose one reading or worldview or way of thinking on a class of 35 individuals who have experienced, in many cases, racial injustice in the real world. Our *multi-vocal practice* accounts for the many voices of the class and the many voices of experts in the field of racial justice and

injustice. We prioritize listening to these voices and, when needed, following the psychoanalytic model, giving students' words and narratives back to them so they can help to develop meaning on their own.

In this rejection of mastery, of complete control, we also developed *flexible and fluid* assignments that range in modality, length, and format. We realize that every student learns differently, and we account, consistently, for these differences. From weekly low stakes blog posts to more formal essays to Art Matters presentations to group work and beyond, we hoped that every student in the class found something they excelled in. The blog posts, developed not in advance but in conversation with the class, encouraged collaboration like the final, group presentations at the end of the semester. Along with this format flexibility comes flexibility with deadlines. We realized that, especially during the pandemic, students juggled illness with care taking with jobs and financial stress. Our care policy puts the students before the deadline.

This flexibility also appears in our multiple *High Impact Practices* over the course of the semester – allowing the outside world to come into the class and the class to go into the outside world. We took advantage of our partnership with TheaterWorks, which invites students to see high quality shows for free and attended a play about an interracial gay couple who had different experiences with, and values for, activism. We attended the 30 Americans exhibit at the New Britain Museum of American Art featuring such Black artists as Nick Cave, Basquiat, Kahinde Wiley, and Kara Walker in order to discuss how the visual arts can also participate in racial justice work. Each instance provided for a more open way of engaging students and an opportunity to participate in the civic and cultural lives of the cities where we live.

Finally, we privileged *vulnerability and compassion* as modes of engagement rather than a strict adherence to classroom order and a sense that we had to present material in a lecture format, expecting students merely to take notes on what we said rather than speaking out themselves. When we gave space for every student to speak and treated each member of the class with compassion, we found that nearly every voice was heard—and we all had an opportunity to teach something. This dynamic approach discourages the students from seeing the teacher as "the subject supposed to know," and instead tasks them with developing and owning insights in their own right—a much more difficult, but rewarding, path to knowledge.

FINDINGS

Our goals involving teaching interactively with empathy and awareness of the significance of bearing witness to each student's realities and concerns—our goal to teach to transgress, in other words—were validated by our findings. While we do not have numerical or statistical "findings," in the proper sense, and our *n* is only one (if you count our class as a single entity) or 35, if you are counting our students, qualitative data from our student opinion surveys show us that we have succeeded in many of our goals—primarily with regard to engagement, flexibility, and openness: qualities of a classroom that puts students at the center rather than the teacher. Some examples of student comments include:

"The strength of the course was the multiple perspectives are taken into account in the class, thus giving the class a very intricate and complex set of ideals that are demonstrated by everyone in the class."

"There are many strengths of the course, such as art matters presentation, group projects. Allowing class to all discuss as a whole and have a voice in the class."

"Student engagement is a great strength of the course. I like the blog posts, extra credit assignments, and art matters, all of which help elevate the voices of my peers."

"It is very interactive. Every individual has the opportunity to give their opinion on anything discussed in class."

"Appreciation of the inputs of every individual in the class."

"A welcoming environment to voice our opinions."

Despite positive reviews in keeping with the exemplary responses we provide above, there were calls for improvements – mostly along the lines of what we sought to emphasize in the first place. Students called for more diversity of perspectives, not less. As we both come to the topic with literature backgrounds, it is clear that literary analysis was a huge emphasize in this general education class to fulfill study area III. We also fell into the trap of privileging academic backgrounds in inviting guest speakers, rather than casting the net wide to invite in experts from the community: police officers, social workers, school principals, real estate experts, and the list goes on.

Student opinions in this vein include:

"I really enjoyed it when we had guest lecturers come and speak to us. For improvement, I would say it would be beneficial to have these visits be more spread out throughout the semester."

"It was very focused on literature, which makes sense since Prof. Pozorski is an English professor first. Maybe work on making the class more interdisciplinary?"

"Maybe it can be co-taught by professors of different backgrounds, or have more guest speakers, so we can get a lot of perspectives."

In the future, we hope to build on this work and make new connections in the field. We also hope to invite former RJ200 students to class to discuss not only how their approach to racial justice topics has evolved but also advice for how to excel in such a student-centered environment. We also hope to work more with the Racial Justice Certificate program overall, which now, three years after it was initially conceived, includes students and professors from all over campus representing so many disciplinary perspectives and walks of life.

CONCLUSIONS

Our radical pedagogy that incorporates the tenets of the Black Lives Matter statement of purpose alongside founding texts on transgressive and psychoanalytical thought from the 1990s proved to be completely in keeping with the subject matter our class addressed: Racial Justice issues in literature, sociology, philosophy, and beyond. However, we believe that this pedagogy does not have to be unique to such classes as RJ200 or any other course that takes up oppression. We strove to match our pedagogical form with the content—undermining systems of oppression in society, policing, and education—and in so doing decided to begin with the very classroom in which we stood. And yet, we

see room for some of our tenets or practices in courses that take up a variety of areas from Art History to Mathematics to Psychological Science to Chemistry. Many of our colleagues are already doing the work in fields known for advocating mastery and using lectures to get there. But in the 21st century, guided by hooks and Felman, we see now that there are other, more radical, risky, compassionate, and vulnerable ways to teach. As hooks argued in 1994, it is more crucial than ever before that we create and develop "new ways of knowing" (hooks, 1994, p. 12). A radical pedagogy after Black Lives Matter is one possible step.

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ABOUT THE AUTHORS

Dr. Aimee Pozorski has authored *Roth and Trauma: The Problem of History in the Later Works* (Continuum, 2011), *Falling After 9/11: Crisis in American Art and Literature* (Bloomsbury, 2014), and *AIDS-Trauma and Politics* (Lexington, 2019). She has edited or co-edited volumes on the topics of Philip Roth, American Modernism, and HIV/AIDS representation. With Maren Scheurer, she co-edits the peer-reviewed journal, *Philip Roth Studies* and is co-editing the forthcoming *Bloomsbury Handbook to Philip Roth*. She is Professor of English Department at Central Connecticut State University, where she also coordinates the certificate in Racial Justice and directs the American Studies minor.

Amily Marie is an English graduate student with a specialized interest in racial representation, the history and politics of race creation, and identity formation. She presented her work at the 2017 and 2018 English Undergraduate Conferences at Central Connecticut State University. Previously she worked as a peer support specialist where she counseled people with mental health problems, has interned at the Harriet Beecher Stowe Center and is currently a Graduate Intern at CCSU's Student Affairs Office. She is a recipient of the Carol A. Ammon Fund Award, a member of Sigma Tau Delta International English Society, and on the leadership board of the English Graduate Student Association. Amily plans to write her thesis on racialization in Latino literature and aspires to engage in further research at the doctoral level.

Music as Caring Pedagogy

Dr. Leona Konieczny, DNP, MPH, RN, GERO-BC, CNE, PM (Nursing Professor Emerita)

INTRODUCTION

"Music gives a soul to the universe, wings to the mind, flight to the imagination, and life to everything" (Bragg Harding, 2023). This wisdom from Plato is the foundation for connecting the university nursing faculty member with nursing students and connecting nursing students with older adults. The goal for the faculty in a sophomore level gerontological nursing course is to create a meaningful mechanism to promote communication between a 20-year-old and an older adult, at least 65 years, and the old-older adult who is 85 years or more. The students are just starting to interact with older people who have cognitive and/or physical deficits. The clinical experiential part of the course is in the long-term care setting where the overwhelming majority of residents have a diagnosis of dementia. Inspired by the 2014 Sundance Film Festival award winner, *Alive Inside*, an assignment is created which exceeded the initial aim of using music to connect. The documentary chronicles the effects of personalized music playlists to reinforce the sense of self in adults with impaired memory. There are both joyous feelings and memories linked to music.

LITERATURE REVIEW

The literature is robust in the therapeutic effects of music. Lee, et al., (2022) found direct and indirect intrapersonal and direct and indirect interpersonal effects. The care home residents demonstrated improvement in mood, engagement, and connectedness (Lee et al., 2022). A qualitative study found individualized playlists had effects beyond recreational music. Some of the themes a "transcendental reminiscing, the joy and elation and "optimism and enthusiasm" (Gaviola et al., 2021, p. e10). Another study found a decrease in agitation, apathy, depression and increase in quality of life among residents in long-term care facilities where individualized music therapy had been implemented (Dahms et al., 2021). In this study, music was used as adjunct therapy to medication. McCreedy, et al. (2019) report on the effectiveness of music as a non-pharmaceutical intervention. Both music and art are pathways in producing socio-material connectivity in persons with dementia (Mittner, 2021). The efficacy of music on mental health among residents in long-term care has been established. Over 80% of long-term care facilities in one study reported use of music and memory programs with 86% planning to continue its use (Kwak et al., 2020). A study with undergraduate students found the arts change the way students think about and relate to persons with dementia (Gubner et al., 2020).

ASSIGNMENT DESCRIPTION

The first part of the written assignment is for each student to interview an older adult about their three favorite songs or musical artists and the reasons which went with the memory. The student can select an older adult who is a relative, family friend, neighbor, or resident in long-term care. The most common responses from the older adults were songs from their teens or young adult years. Frank Sinatra was mentioned frequently by those 85 and older. The songs were very often connected to first

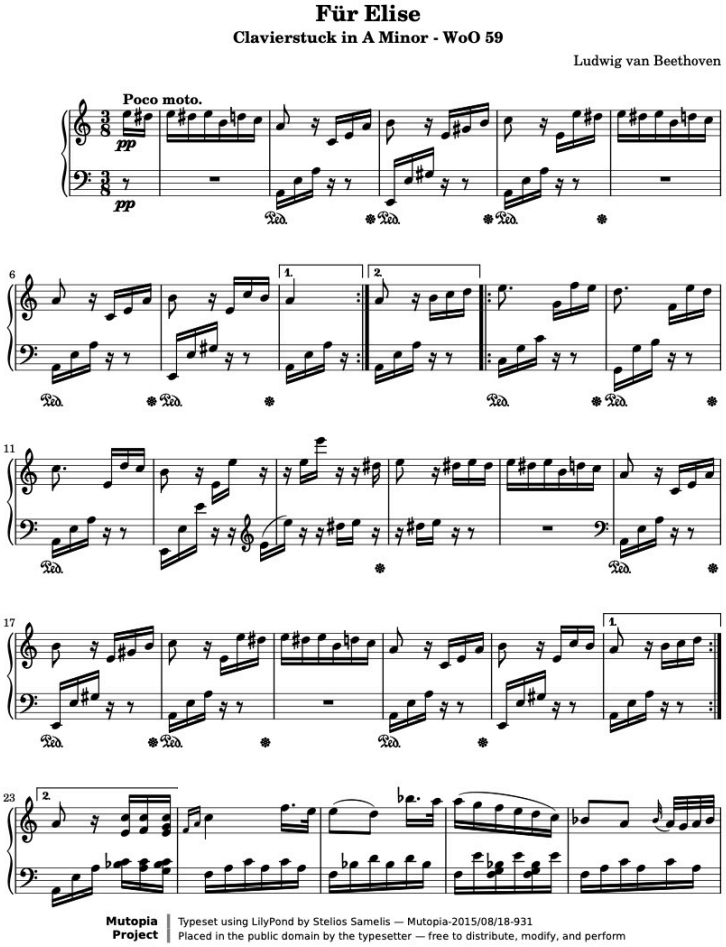
loves and dancing on a date. The student has the opportunity to view the older adult as an individual who had experiences of being in love, having excitement, and dreaming of the future. These are not elements that the typical student would connect with an older adult. One student interviewed a patient with dementia in long-term care. The resident was very proud when she remembered the lyrics to her favorite song. She wrote out the words and gave it to the student as proof of her memory. One student who interviewed an older adult neighbor was surprised to learn her favorite artist is Fifty Cent. It is a valuable reminder to not make assumptions about older adults. Another resident in long term care is frequently inconsolable, her daughter who had been her only regular visitor had died of cancer. The resident did not have the capacity to remember her daughter's death but would cry because of loneliness. Instead of medicating the resident, the nursing staff would play Elvis songs to change her mood. This is role modeling of holistic, patient-centered nursing care.

The second part of the assignment is for each student to write about their three favorite songs or musicians. Quite a number of students write about music reminiscent of first love. While the faculty member anticipates~~,~~ students will write about current music, many write about music from their earlier teen years. Lana Del Rey songs were written about by some female students as they reflected on their relationship break-ups during high school. The faculty learned about the student as an individual. A quiet student in the honors program emigrated from Bosnia as a child. The faculty member learns rap is their favorite music which is a surprise. This is a reminder for the faculty to avoid assumptions about a student. Another student's favorite song is "Stumblin' In". Forty years later this song, from the 1970s, is still frequently played at wedding celebrations in Latvia. One student interviews their father who was in his late sixties. They wrote about a shared love for music by the Beach Boys played during family road trips in the summer. One student called their grandfather in Ukraine. The student wrote about their conversation about military fighting songs such as "The March of the New Army".

CONCLUSION

The faculty learns more deeply about the individual student through their choice of music. Individual, specific feedback on the assignment is given to each student. The assignment provides this faculty insight into the student as a whole person. A higher education study finds the relationship quality between faculty and student assists in positive academic outcomes by student engagement (Snijders et al., 2020). Another study reports students' perceptions of caring by faculty matters more than grit in achieving the long-term goal of academic success (Buskirk-Cohen & Plants, 2019). A qualitative study with Millennial and Generation Z undergraduate students reports a caring professor positively impacts student engagement and willingness to learn (Miller & Mills, 2019). Guzzardo, et al. (2020) found four themes which are: creating pedagogical space, being inclusive and aware, being engaged and engaging students, and doing more than teaching. Dr. Jean Watson developed the *Caritas* or Caring Model of Nursing Theory. A recent article reinforces an attribute of caring pedagogy which is "cultivation of flourishing and meaningful student learning" (Christopher et al., 2020).

The music assignment has been used for three consecutive gerontological nursing courses. After the first year, part of class time is scheduled for discussion. Students sharing their individual conversations to connect with older adults using music enhanced the classroom experience. The music and memory assignment supports communication, connection, and holism.



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ABOUT THE AUTHOR

Dr. Leona Konieczny, DNP, MPH, RN, GERO-BC, CNE, PMP, has 50 years of nursing experience with almost 40 years in higher education in nursing. Dr. Konieczny has taught students in Associate Degree, BSN, MSN, and DNP programs. Her career within the Connecticut State Colleges and Universities began at Capital Community College in 1986. She moved to Central Connecticut State University in 2014 where she retired as Chair of the Department of Nursing in January 2020. Dr. K has presented locally, nationally, and internationally. Her most recent international presentation on improving care for residents in long term care was at the Sigma International Research Congress in Edinburgh, Scotland in 2022. She maintains a certification in Gerontologic Nursing from AACN and is a Certified Nurse Educator from NLN. She recently earned her Project Management Professional credential in 2023. Dr. K is the Chair of the Abstract Review Committee for the Connecticut Research Alliance. Her passion outside of nursing is travel. She has been to six continents and 41 countries with a visit to Greece in 2023 as the most recent.

An Urgent Shift Towards the Pedagogy of American Racism

Jasmine Gonzales

Thanks to Dr. Xiaoping Shen, Central Connecticut State University now has Asian American and Pacific Islander Studies program. Dr. Shen has also personally provided a scholarship to help those who want to further and share their knowledge of racial inequity. Because of her efforts, I could partake in a greatly needed learning experience—one that our entire nation should have access to. The acceptance of Dr. Shen's scholarship has given me a platform to discuss my interest in pursuing a minor in AAPI studies.

I dropped out of college when I was 19. I was the first in my family to attend university but was ill-prepared, very naïve, and unsure about myself and everything else in life. But what I was sure about was that college was not for me. During my hiatus from college, I got married, became a mother, and moved away from home. In life, I learned things happen that you do not expect or plan for, and so a couple of years later I came back home a single mother—a single mother who is also a minority woman of color.

I was on my own now and desperately trying to get back onto my feet. I realized that the harder I tried, the more my poverty was perpetuated. I knew something far deeper was wrong and that what was happening to me was not right. I wondered how many other women like me in this country are trying their hardest to endure. I wanted to understand why and how this could be. I wanted to find a way to help myself so that I'd be able to care for my child on my own and to prevent racial discrimination and its disparity from affecting my child's ability to be a successful woman someday. And so, I went back to school in 2020 to finish my degree to overcome the systemic racism that denies me my right to equality and the privilege of upward mobility.

At the same time COVID-19 had hit the U.S., exacerbating and putting into the open the racial discrimination, violence, and disparities that minorities have endured in this country for hundreds of years. Cathy Park Hong expresses in her book, *Minor Feelings: An Asian American Reckoning* (2020), that "the white reign of terror" was made visible while racism of the privileged majority was spewed back into their faces disabling their color blindness and forcing them to reckon in their shame (78). Hong also says, "white Americans...now felt marked for their skin color, and their reaction for being exposed as such was to feel–shame" (87). Some white Americans saw a chance to rectify their racist ideologies when COVID-19 provided an opportunity not only to "understand racial trauma as a spectacle" but also to assess themselves in a self-examination of what scholar Linda Martin Alcoff calls "white double-consciousness": "seeing themselves through both the dominant and the non-dominant lens, and recognizing the latter as a critical corrective truth" (Hong 78, 87).

Other white Americans chose to remain in the flow of their "white tears...worsening their false sense of persecution" (Hong 83-4). Hong reminds us that it is "also human nature to repel shame by penalizing and refusing continued engagement with the source of their shame. Most white Americans live in segregated environments, which, as Alcoff writes, 'protects and insulates them from race-based stress'" (Hong 88). Hong adds that as "a result, any proximity to minorities"—like seeing the hyper sexualized Asian American female body in Atlanta, Georgia spas or "watching news clips of black protesters chanting 'I can't breathe' … sparks intolerable discomfort" (88). Hong describes how

"[s]uddenly Americans feel self-conscious of their white identity…misleading "them into thinking their identity is under *threat*. In feeling wrong, they feel *wronged*. In being asked to be made aware of racial oppression, they feel oppressed" (88, emp. in original).

White tears were manipulated by Donald Trump to uphold and maintain his elite power status when he initiated a trade war with China and used racist rhetoric, regarding COVID-19 as the "China virus" and the "kung flu." In doing so, he validated and supported what Hong calls the emotional fragility of white racial stress and the racial violence of Asian Americans that ensued as a result. She continues, "to be aware of history, they would be forced to be held accountable, and rather than face the shame, they'd rather by any means necessary, maintain their innocence" (89).

In giving some reasoning for the enhanced racial violence against Asian Americans, along with my choice to return to university later in life, I want to express how everything in life happens for a reason. COVID-19 was one of the worst things that could have ever happened to humanity, but it also exposed the truth about the history of the Asian American experience that had been kept invisible for generations. It brought awareness to the health disparities that black and brown American communities sustain. It exposed the commodification of Asian, Latin X, and black American women "essential" workers, bringing to light the truth behind the history of America's success, which is on the backs of disenfranchised people. In doing so, ignorance and color blindness are no longer an excuse, forcing Americans to wake up and become responsible for seeking truth. My own disparities forced me to seek understanding which led me and many other students to be a part of CCSU's AAPI studies program— academic history in the making— providing an ability to contribute to promoting the history and discoveries of racial and ethnic awareness in the US.

In the brief time that the AAPI minor has been available, I have learned that there are many Asian Americans who put themselves out into the public sphere as representatives and demonstrators of change. Through their contributions and achievement in leadership for equality, they inspire Asian Americans to break their silence and inaction. It informs that Asian Americans' abilities are not tied or limited to racist stereotypes. It gives them strength and courage to lead the conversation in equality for all Asian Americans.

Therefore, it is important to understand that race in America is not just a black and white dynamic. Rather, it contains an entire gray space of racial minorities and ethnicities that all experience racial violence and discrimination in different ways. This black and white paradigm is a narrative shaped by meritocratic neoliberal elitists who create and need division to maintain their power and wealth. So, it is in the best interests of all American minorities to break indifference and division between them and become aware of how racism effects each group differently so that we can form a coalition.

To stand up and speak out against racism is scary: doing so ensures that it cannot be invalidated and thus triggers violence in racists who would rather not be reminded of their hate. But if we continue to stay silent in our fear, don't we help perpetuate racial violence? Are we not complicit in maintaining a power dynamic of privilege to the elite and majority? No one person or racial minority can do the work alone, but one dynamic group composed of many ethnic sub-groups that can build connections through the experiences of their shared experience of inequity can overcome systemic racism together. One unified dynamic group can help one another face and stand up against racial violence.

themselves to establishing Central Connecticut State University's AAPI program and getting it off the ground and running. I know that in the coming years it will grow into an even greater form of educating and informing those eager to learn about the racial hate and injustice that proliferates in our own backyards. I am very grateful for this and the ability it gives me to continue my studies.

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Biography

Jasmine Gonzalez is a full-time student at Central Connecticut State University as well as a full-time mother. She will be graduating from CCSU in the Fall of 2022. She is the first recipient of the Dr. Xiaoping Shen scholarship for students in the Asian American and Pacific Islander Studies minor. She hopes someday to make a difference by helping in the fight for equality for all racial, ethnic, and gender minorities.

Inclusive and Accessible Online Course Design in Action

Dr. Natsuko Takemae (Special Education and Interventions Department)
Dr. Jessica L. Edwards (Literacy, Elementary, and Early Childhood Education Department)

ABSTRACT

The purpose of this article is to provide insights online course designs though which students can access, build, and internalize knowledge and skills in higher education (CAST, 2018b). In order to optimize best practices for online learners, we conducted a crosswalk among the Universal Design for Learning framework (CAST, 2018b), Quality Matters Higher Education Rubric (Quality Matters, 2023), and our higher education institution's recommendations for Online Course Design (CCSU, 2021). The crosswalk's implementation examples in this article highlight scientific lens on how humans learn using the Universal Design for Learning framework (CAST 2018b) along with high quality online learning design attributes. The examples of online course designs include the following four areas: *(1) course design, (2) interaction and collaboration, (3) assessment, and (4) learner support in the inclusive online environment* (CCSU, 2021). Ways to provide multiple means of (a) engagement (the WHY of learning), (b) representation (the WHAT of learning), and (c) action and expression (the HOW of learning) in these four areas are discussed with examples.

ONLINE LEARNING ENVIRONMENT

The online learning environment provides flexibility for students including timing, pacing, and scheduling for asynchronously or synchronously interacting with their classmates from different geographical locations or time zones (Thibodeau, 2019). Yet the online learning environment can add challenges to learning such as engaging in self-guided navigation and learning, demonstrating technology proficiency, and studying without simultaneously guided support (Rao et al., 2015). Thus, the online course environment requires students to demonstrate additional self-management and self-advocacy skills (Rao et al., 2015). To support students' self-management and self-advocacy skills, it is essential to intentionally build in flexibilities within the online learning environment by using high quality online course design resources. In this article, we discuss several of these resources, including the Universal Design for Learning (UDL) framework, the Quality Matters Standards, and the online course design standards from our own university. The discussion expands upon (a) the crosswalk analysis, (b) connections between the three resources, and (c) online course design examples demonstrating the crosswalk application.

UNIVERSAL DESIGN FOR LEARNING FRAMEWORK

Universal Design for Learning (UDL) is a cognitive, research-based framework (CAST, 2018a; Every Student Succeeds Act, 2015; and Higher Education Opportunity Act, 2008). The application of UDL Principles has been defined and endorsed by public educational policies such as Every Student Succeeds Act (ESSA) of 2015, Higher Education Opportunity Act (HEOA) of 2008, and the 2017 National Education Technology Plan (NETP) (CAST, 2020; ESSA, 2015; HEOA, 2008; NETP, 2017). Through application of the

UDL framework to instructional designs, educators provide multiple means of students' (a) engagement in learning, (b) information processing, and (c) action and expression of knowledge and skills (CAST, 2018b). For example, to support students' (a) engagement in learning, an educator can have them create their own timeline to complete small steps in a course project. This is an example for an application of the UDL checkpoint 7.1: *Optimize individual choice and autonomy* to the instructional design. Another example is for supporting students' (b) information processing, an educator can provide an anchor instruction using an advanced organizer (e.g., concept map) to activate their prior knowledge and link them to the newly introduced information. Through this, information is more accessible as it is learned and students can make a connection between their pre-existing knowledge and the newly learned information. This is an example for an application of the UDL checkpoint 3.1: *Activate or supply background knowledge* to the instructional design. Lastly, to support students' (c) action and expression of knowledge and skills, an educator can have students use their preferred tool to articulate what they know (e.g., comic strips, infographics, presentation slides, video recordings, written reports, graphics, or demonstrations). This is an example for an application of UDL checkpoint 5.2: *Use multiple tools for construction and composition*. Two critical elements of UDL are (1) proactively identifying pre-existing barriers to learning and (2) intentionally embedding scaffolded support in learning materials, activities, and environments (CAST, 2020). Therefore, by applying the UDL framework to instructional designs, educators can (I) remove preexisting barriers to learning in the curriculum and (II) bridge learners with variability (e.g., strengths, areas to improve, access to technology etc.) to their interaction with the curriculum (Rose & Meyer, 2002; Orkwis & McLane, 1998). Educators can enhance curriculum accessibility and address learner variability for all students with and without identified disabilities through UDL-based curriculum and instructional designs (CAST, 2020; ESSA, 2015; HEOA, 2008). UDL applies to all learning environments including online asynchronous and synchronous, hybrid, HyFlex, and face-to-face learning formats (CAST, 2020). With advancing technology and increasing demands, an application of UDL to enhance benefits of an online learning management system is critical.

QUALITY MATTERS STANDARDS

In 2003, a group of colleagues in higher education sought to address the issue of quality management for online learning. Considering that more institutions during that time were beginning to share students, it became clear that ensuring quality equivalence among online courses was needed. With the support of a federally funded grant, the Quality Matters process was born and reached over 152 institutions in 28 states. Since then, over 1,500 higher education institutions have officially joined the Quality Matters movement with over 60,000 education professionals and thousands of online courses certified (Quality Matters, 2023). Today, this globally recognized organization is considered a leader in quality assurance for online and innovative digital learning environments. Our university faculty are encouraged to participate in training opportunities including Quality Matters. Quality Matters certified faculty are recognized as expert users by the Online Learning Committee in our institution. Countless professionals in higher education use this resource to develop and evaluate their best practices for teaching online (Quality Matters, 2023).

According to the Quality Matters Higher Education Rubric (Quality Matters, 2023), the quality of an online course is evaluated through eight general standards: course overview and introduction, learning objectives, assessment & measurement, instructional materials, learning activities & learner interaction,

course technology, learner support, and accessibility & usability. Within each of these eight standards, there are specific review standards that range from four to nine sub-standards. Based on the quality control of the Quality Matters Standards, each of these specific review sub-standards is awarded points that can count towards an online course's quality evaluation. Once the standards have been assessed for a course, an instructor of any online or blended course should have a continuous guide to follow as they continue with development, evaluation, and improvement of their course (Naim, 2021; Quality Matters, 2023).

CCSU ONLINE COURSE DESIGN

Central Connecticut State University (CCSU) provides resources to assist faculty in refining their online courses. In 2021, the Director of Instructional Design and Distance Learning Development and their team at CCSU was tasked with the mission of creating a more user-friendly resource that would enact a measure of quality when evaluating online and hybrid courses. Through this resource, instructors would be able to ensure that their courses met a standard for development that was appropriate for optimal student learning in a virtual environment. With training in Quality Matters and the Online Learn Consortium, the Director of Instructional Design and Distance Learning Development in our institution led a team to develop the CCSU Checklist for Online Course Design (CCOCD, CCSU, 2021). Although this was not the only tool that was developed at that time, this checklist was the resource chosen for discussion in this paper, as its standards coincide with the other two resources previously mentioned.

The CCOCD provides instructors with four main standards for online course design: course design, interaction and collaboration, assessments, and accessibility (CCSU, 2021). Among these standards, there are sub-categories that further clarify each standard. For example, the standard of accessibility does not have any sub-categories while the standard of assessments further clarifies the difference between instructor assessments and student self-assessments. Once instructors select a main standard, they will find exemplary sub-categories that pertain to the main standard, providing clear examples of how they can measure each one with regard to their online course design. Instructors can use this resource to reflect and determine the quality of their online course design.

CCOCD Implementation through UDL Checkpoints and QMSES Applications

To optimize an application of research-based educational framework and online course design standards, we conducted a crosswalk analysis with UDL Guidelines (CAST, 2018b), QM HE Standards (QMHES, Quality Matters, 2020), and CCOCD (CCSU, 2021). Our goal was to identify the UDL Guidelines and QMHES's alignments with the CCOCD, through which course instructors can intentionally apply specific UDL checkpoints and Quality Matters standards to their online course design while using the CCOCD. Under each one of the UDL Principles in Appendix A Table 1, there are multiple means of Engagement (green), Representation (purple), and Action & Expression (blue). Each UDL Principle accompanies three UDL Guidelines. For example, UDL Guidelines in the Principle of Engagement are: recruiting interest, sustaining effort & persistence, and self-regulation. UDL Guidelines in the Principle of Representation are: perception, language & symbols, and comprehension. UDL Guidelines in the

Principle of Action & Expression are physical action, expression & communication, and executive functions. These UDL Guidelines include UDL checkpoints which include suggestions to reduce barriers to learning and maximize opportunities for learning (CAST, 2023).

In the following sections, our descriptions and applications illustrate the crosswalk examples in action for implementing CCOCD, QMHES, and UDL checkpoints. These examples are applicable for postsecondary education settings that incorporate a Learning Management System (LMS). They can be implemented in synchronous, asynchronous, hybrid, and hyflex courses. The examples explicitly include CCOCD, QMHES, and UDL checkpoints to make this application intentional and purposeful. The examples of online course design and layouts aim to enhance access among (a) student engagement, (b) content representations, and (c) learning interactions in the following four areas: *(1) course design, (2) interaction and collaboration, (3) assessment,* and *(4) learner support in the inclusive online environment* (CCSU, 2021). The items italicized and underlined in the following sections indicate corresponding items from the CCOCD.

Pre-course Communication

Prior to exploring the standards within the CCOCD, this resource provides online instructors with a recommendation of communicating with their students before beginning their course instruction. To *minimize threats and distractions* (UDL 7.3) and *foster collaboration and community* (UDL 8.3), instructors send pre-course communication *to the students prior to the start of class to establish how and when they are expected to participate online.* This communication include course meeting schedule and mode links as well as tutorial and online resource links. In this way, instructors can help students *understand how to get started and where to find various course components* (QMHES 1.1)

1. Course Design

Content composition and structure (CCOCD 1.1 - 1.7)

To *minimize threats and distractions* (UDL 7.3) and *facilitate managing information and resources* (UDL 6.3), instructors can build in explicit course menu for students to navigate a Learning Management System (LMS). The navigation menu includes clear and visible labels listed below.

1. Start Here or Welcome Module
2. Syllabus
3. Announcements
4. Course Content
5. Synchronous meeting link (if applicable)
6. My Grades
7. Student Services
8. Institutional Policies
9. Library Resources

Further, to foster collaboration and community (8.3), the Start Here or Welcome module would include an introductory video from the instructor. Students learn from the introductory video regarding

a course overview, brief course menu overview, and expectations for learner interaction with the course. In this way, *expectations for prerequisite knowledge in the discipline and/or any required competencies are clearly stated* (QMHES 1.7). It is also important to point out from the beginning as part of course expectations *that minimum technology requirements and computer skills and digital information literacy skills expected for the course are clearly stated, and information on how to obtain the technologies is provided.* (QMHES 1.5 & 1.6). The expectations are addressed from the beginning of the course.

From the beginning, *the self-introduction by the instructor is professional and is available online* (QMHES 1.8) as well. This includes *instructor availability, method of contact and timing of responses, schedule and site for synchronous meetings (if applicable), communication of grading feedback, and where to go for assistance*. They can also be communicated in the video so that students can get to know the instructor and contact them even before the course gets started.

To *optimize relevance, value, and authenticity* (UDL 7.2), *maximize transfer and generalization* (UDL 3.4), and *support planning and strategy development* (UDL 6.2), the *items on the course menu are available or set on a timed release schedule and "chunked" in manageable segments (i.e., presented in distinct learning units or modules).* These "chunked" segments include a space where *learners are asked to introduce themselves to the class* (QMHES 1.9). Because the materials are provided in manageable spaces/segments, instructional materials represent up-to-date theory and practice in the discipline (QMHES 4.4) can be presented through a *variety of instructional materials used in the course* (QMHES 4.5). These "chunked" materials also include clear descriptions of the *relationship between the use of instructional materials in the course and completing learning activities* (QMHES 4.2). Thus the course materials gradually *contribute to the achievement of the stated learning objectives or competencies* (QMHES 4.1.). Gradually scaffolded "chunked" *learning activities promote the achievement of the stated learning objectives or competencies* (QMHES 5.1).

To *facilitate personal coping skills and strategies* (UDL 9.2) and *optimize access to tools and assistive technologies* (UDL 4.2), *student resources such as technical support, institutional polices and library resources are visible* to students. This ensures that *the course instructions articulate or link to a clear description of the technical support offered and how to obtain it* (QMHES 7.1) as well as *to the institution's accessibility policies and services* (QMHES 7.2) and *academic support services, student services, and resources that can help learners succeed* (QMHES 7.3 & 7.4). This also makes it intentional that *tools used in the course support the learning objectives or competencies* (QMHES 6.1), *course tools promote learner engagement and active learning* (QMHES 6.2), and *a variety of technology is used in the course* (QMHES 6.3). These tools and technology support learners' personal coping skills and strategies in the learning process.

Goals and objectives (CCOCD 1.8 - 1.9)

To *heighten salience of goals and objectives* (UDL 8.1) and *guide appropriate goal-setting (*UDL 6.1), instructors ensure the following elements.

- *Important/due dates are on the course calendar, listed in a chart, or are easily accessible to students* (Course Design, Content Composition & Structure 1.6). This presents an overall semester-long schedule with assignments' due dates so students can view what to expect in the

course and pace their own learning process.

- *Course and module goals and objectives are clearly written, appropriate for the course level,* as well as *measurable and aligned to desired outcomes.* This highlights the importance of *the course learning objectives or course/program competencies* and *describes outcomes that are measurable* (QMHES 2.1). This also addresses that the *module/unit-level learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies* (QMHES 2.2). In addition, this informs of students that *the learning objectives or competencies are suited to the level of the course* (QMHES 2.5).

- *Course and module goals and objectives show a clear relationship to each other, are easily located within the course and visible in a variety of areas* (i.e., within the syllabus and each individual learning unit). This demonstrates that (a) *learners are introduced to the purpose and structure of the course* (QMHES 1.2), (b) *learning objectives or competencies are stated clearly, written from the learner's perspective, and prominently located in the course* (QMHES 2.3), and (c) *the relationship between learning objectives or competencies and learning activities is clearly stated* (QMHES 2.4).

Ensuring all of these elements, the course design can be intentional that *learning activities promote the achievement of the stated learning objectives or competencies* (QMHES 5.1).

Application Examples of Course Design

The examples of Course Design through the applications of the UDL framework and QMHES in our past courses are as followed. By intentionally designing online courses, challenges among learners such as having access to resources (Hart, 2012) can be resolved and rather enhanced (CAST, 2018b). For instance, the course goals and objectives aligned with course outcomes were explicitly addressed in multiple areas such as under the course information, syllabus, resources (e.g., weekly PDF notes), and assignments. Also, the measurable outcomes for the goals and objectives were included in the assignment rubrics and the assignment submission links. The content was organized by a scope and sequence and chunked for scaffolding to target the Zone of Proximal Development (Vygotsky, 1978). In addition, the content were enhanced using multi-media including digital resource links in Wakelet, embedded videos (e.g., the instructor's recorded pre-learning videos and additional supplemental materials), GoReact, Padlet, shared editable digital notes, and self-paced modules. For ease of navigation, content folders included embedded icons to easily locate and access materials. Instructor-made visual content representations were accompanied with auditory alternatives. Likewise, auditory representations made by the instructor were accompanied with visual alternatives.

2. Interaction & Collaboration

Interaction (CCOCD 2.1 - 2.2)

Online learning community opportunities (CCOCD 2.3)

To foster collaboration and community (8.3), it is important to provide *opportunities for synchronous (e.g., live meetings, chat) and/or asynchronous (e.g., discussion board, email) interaction,*

as appropriate. This provides learners with opportunities for *interaction that support active learning* (QMHES 5.2). Not only providing opportunities but also sharing *the instructor's plan for interacting with learners during the course* (QMHES 5.3) is essential. This plan shall also include *information on protecting their data and privacy* (QMHES 6.4) and *vendor accessibility statements* (QMHES (8.6) so that the community of learning assures accessible collaboration.

Another consideration to foster collaboration and community (8.3) is to provide opportunities for *interaction that support active learning* (QMHES 5.2) by having *student to student and student to faculty interactions that build a sense of community and enhance engagement.* These opportunities should *allow discussion, reflection, and collaborative teamwork* (e.g. discussion board forums, online study groups, use of break-out rooms and synchronous meetings with time for question and answer). These opportunities are planned carefully ahead of time so that *the instructor's plan for interacting with learners during the course is clearly stated* (QMHES 5.3) for learners. *Interaction expectations are clearly defined (e.g., quantity of interactions, levels of participation, etc.) and presented online* to *promote expectations and beliefs that optimize motivation* (UDL 9.1). These *communication expectations for online discussions, email, and other forms of interaction are clearly stated* (QMHES 1.3) so that learners can proactively engage in interactions knowing the expectations without hesitation.

Application Examples of Interaction and Collaboration

The examples of Interaction and Collaboration through the applications of the UDL framework and QMHES in our past courses are as followed. Through embedding flexibility in students' interactions with their online learning process, developing and managing social relationships and connectedness with their instructors and peers, which often considered to be challenges (Hart, 2012; Hollingshead & Carr-Chellman, 2019), were enriched. These challenges were addressed by providing multiple methods of interactions available for learners including synchronous live video meetings, chats, breakout sessions, GoReact videos and comment interactions with peers, shared editable live notes (e.g., Padlet and Google Docs), emails, Microsoft Booking, and virtual office hours. If a course was originally provided as a hybrid course and transformed into a synchronous online course, synchronous and asynchronous meetings were alternatively scheduled during the semester to develop and manage social relationships and connectedness. Likewise, multiple activities were designed while altering live meetings with shared activity engagements and non-live asynchronous meetings with self-paced independent practices. By accompanying rubrics and examples with all assignments, students were able to envision their expected outcomes. For example, during the mid-course student survey in one of our classes, some students expressed their desire to engage in additional hands-on activities during our synchronous meetings. Thus, starting in the face-to-face four meeting (week nine), the flipped classroom approach was applied (Walvoord & Anderson, 1998). Through the flipped classroom approach in online courses, students reviewed course materials including pre-recorded instructors' videos in addition to regular reading assignments and previewed class notes prior to the synchronous class meetings. During our synchronous meetings, students focused on applying what they learned through the independent pre-learning to hands-on and collaborative problem-solving practices. In this way, interaction and collaboration in the online course environment were further enhanced.

3. Assessments

Assessments (CCOCD 3.1 - 3.4)

To increase mastery-oriented feedback (UDL 8.4), *maximize transfer and generalization* (UDL 3.4), and *build fluencies with graduated levels of support for practice and performance* (UDL 5.3), *multiple types of assessment activities occur frequently throughout the duration of the course, assessment feedback is given in a reasonable amount of time,* and *a rubric or equivalent grading document is included for assignments where appropriate.* In this way, *assessments used are sequenced, varied, and suited to the level of the course* (QMHES 3.4) throughout the semester. Also, through this, the course *provides learners with multiple opportunities to track their learning progress with timely feedback* (QMHES 3.5) In addition, a rubric supports that *assessments measure the achievement of the stated learning objectives or competencies* (QMHES 3.1). For assignment formats to *use multiple media for communication* (UDL 5.1) and *multiple tools for construction and composition* (UDL 5.2), *the instructor's method of collected and returning assignments are clearly defined.* They include pre-designed choice formats or learners' freedom to choose and create their choices of multiple media formats to construct and compose assignments. By providing these choices, learners engage in authentic learning activities that are meaningful for their real-life applications.

Student Self-Assessment (CCOCD 3.5)

To *develop self-assessment and reflection* (UDL 9.3) and *enhance capacity for monitoring progress* (UDL 6.4), instructors provide *opportunities for student self-assessment*(e.g., practice test, journal, self-reflection, pre-quiz) with constructive and meaningful feedback. Here, a rubric plays an important role for self-assessment so that *specific and descriptive criteria are provided for the evaluation of learners' work* (QMHES 3.3) A self-assessment shall not be one time deal because the *course provides learners with multiple opportunities to track their learning progress with timely feedback* (QMHES 3.5). Multiple opportunities for self-assessment and reflection strengthen learners' capacity to monitor their progress.

Application Examples of Assessment

The examples of Assessment through the applications of the UDL framework and QMHES in our past courses are as followed. Online course assessments were designed to activate (a) why of learning for enhancing student engagement, (b) what of learning for facilitating content processing, and (c) how of learning for flexibly demonstrating target learning outcomes (CAST, 2018). One way to organize this design was for all assignments to include color-coded notes indicating the (a) why of learning, (b) what of learning, and (c) how of learning in a sequence to help them identify purpose and motivation. In addition, students were provided with opportunities to design their own formats (e.g., infographic, videos, audio recordings, posters, illustrations, narrative writing etc.) to complete assignments that ultimately target the same outcomes measured in the rubrics.

4. Accessibility

Accessibility (CCOCD 4.1 - 4.4)

To *optimize individual choice & autonomy* (UDL 7.1) and *optimize relevance, value, and authenticity* (UDL 7.2), *alternative resources** (e.g. ePub, electronic braille, audio file, html, etc.) *are provided by*

instructors. Instructors ensure that a variety of instructional materials is used in the course (QMHES 4.5) so that they can also *vary demands and resources to optimize challenge* (UDL 8.2), *clarify syntax and structure* (UDL 2.2), and *promote understanding across languages* (UDL 2.4). Therefore, it is essential to *illustrate through multiple media* (UDL 2.5).

To *offer ways of customizing the display of information* (UDL 1.1), *alternatives for auditory information* (UDL 1.2), and *alternatives for visual information* (UDL 1.3). In order to accomplish this, *closed captions are provided for all video content.* Thus *the tools used in the course support the learning objectives or competencies* (QMHES 6.1) and *course tools promote learner engagement and active learning.* (QMHES 6.2).

Multiple media illustrations can be used to *activate or supply background knowledge* (UDL 3.1), *highlight patterns, critical features, big ideas, and relationships* (UDL 3.2), and *guide information processing and visualization* (UDL 3.3). To engage learners in dynamic and interactive learning process, it is also important to *vary the methods for response and navigation* (UDL) 4.1) when they interact with peers and their instructors as well as their learning materials. To make sure that all learners can engage in the learning process, instructors upload materials in an LMS and use *a built-in accessibility checker.* Also, multimedia course materials are provided in accessible format so that learners can retrieve instructional materials that represent *up-to-date theory and practice in the discipline* (QMHES 4.4) with *course navigation that facilitates ease of use* (QMHES 8.1).

Application Examples of Accessibility

The examples of Accessibility through the applications of the UDL framework and QMHES in our past courses are as followed. By specifically identifying possible barriers to student learning in online courses, learning supports were intentionally designed while removing these barriers and helping students overcome their individual challenges to self-manage their studies (Novak & Thibodeau, 2016). For instance, as increasing numbers of students log-in the Learning Management System (LMS) by using their tablet and cellphone devices, making LMS course sites touch screen accessible enhanced student engagement through a variety of devices. This allowed students to easily identify materials by locating icon links, color-coded labels, and HTML-based resources. By having resources and support including the contact information, recommended communication methods, expected response time, and institution's support links provided in multiple content folders with easily locatable icons and color-coded links, students easily located and used available supports as needed. Providing students with options to download and open multimedia materials using what students had access to (e.g., Google Docs, Microsoft Word, Mac Pages, and PDF), course material accessibility were ensured. Also, PDF files were linked to open in a new window so that students who used tablet devices do not have to repeatedly press back buttons to the LMS. By intentionally designing learning support based on the UDL framework and the QM standards (CAST, 2018; Quality Matters, 2018), instructors connected the online learning environments to diverse learners including students with and without disabilities, traditional and non-traditional students, and students with diverse cultural and linguistic backgrounds.

CONCLUSION

Based on the crosswalk with UDL Guidelines (CAST, 2018b), QMHES (Quality Matters, 2020), and CCOCD (CCSU, 2021), Appendix A Table 1 provides ways to apply UDL checkpoints and QMHES to intentionally design online courses using the CCOCD. This demonstrates that Central Connecticut State University's guidelines for online course designs can be implemented while aligning with UDL checkpoints and QMHES. By implementing CCOCD, faculty can ensure that their online course designs include optimized *(1) course design, (2) interaction and collaboration, (3) assessments,* and *(4) accessibility*. By applying QMHES, faculty can further operationally define course overview and introduction, learning objectives, assessment & measurement, instructional materials, learning activities & learner interaction, course technology, learner support, and accessibility & usability (Quality Matters, 2020). Through UDL checkpoints' applications to CCOCD, faculty intentionally and purposefully provide multiple means of (a) engagement, (b) representation, and (c) action & expression (CAST, 2018b). In this way, learners can actively (a) engage in learning materials, activities, and community, (b) access, comprehend, and internalize materials, and (c) demonstrate action and expression for their learning applications (CAST, 2018b). Because CCOCD includes four major elements to consider, conceptualization for designing UDL-based and QMHES-based online courses can be coordinated without complications. As educators in the field of higher education, we continuously seek and engage in opportunities to enhance accessible, inclusive, unique, and innovative learning opportunities to all students in online learning environments. Implementing the CCOCD as an anchor for accessible, comprehensive, and engaging online course design for learners in higher education while aligning its application with UDL checkpoints and QMHES can assist us in this endeavor.

We discussed (a) the crosswalk of the UDL checkpoints, QMHES, and CCOCS as well as (b) actionable application examples based on how humans learn (CAST, 2018) and high quality online learning features (CCSU, 2021, Quality Matters, 2020) as our effort to ensure online learning through which students can access, develop, and internalize knowledge and skills (CAST, 2018). It is our hope that this process can also be practical for instructors in other higher education institutions as they consider to adapt this process for designing their online learning features and environment.

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Appendix A

Table 1. Crosswalk with UDL Guidelines, QMHE Standards, & CCSU Online Course Design

UDL Guidelines & Checkpoints		QM Higher Education Standards	CCSU Checklist for Online Course Design

Recruiting Interest	**Optimize individual choice & autonomy**
	(7.1) e.g.,
	• Provide learners with as much discretion and autonomy as possible by providing choices in such things as:
	  ○ The level of perceived challenge
	  ○ The type of rewards or recognition available
	  ○ The context or content used for practicing and assessing skills
	  ○ The tools used for information gathering or production
	  ○ The color, design, or graphics of layouts, etc.
	  ○ The sequence or timing for completion of subcomponents of tasks
	• Allow learners to participate in the design of classroom activities and academic tasks
		Instructional Materials
		4.5 A variety of instructional materials is used in the course.
			Accessibility
			4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided.

	• Involve learners, where and whenever possible, in setting their own personal academic and behavioral goals		

	Optimize relevance, value, and authenticity
	(7.2) e.g.,
	• Vary activities and sources of information so that they can be:
	  ○ Personalized and contextualized to learners' lives
	  ○ Culturally relevant and responsive
	  ○ Socially relevant
	  ○ Age and ability appropriate
	  ○ Appropriate for different racial, cultural, ethnic, and gender groups
	• Design activities so that learning outcomes are authentic, communicate to real audiences, and reflect a purpose that is clear to the participants
	• Provide tasks that allow for active participation, exploration and experimentation
	• Invite personal response, evaluation and self-reflection to content and activities
	• Include activities that foster the use of imagination to solve novel
		Instructional Materials
		4.1 The instructional materials contribute to the achievement of the stated learning objectives or competencies.
		4.2 The relationship between the use of instructional materials in the course and completing learning activities is clearly explained.
		4.4 The instructional materials represent up-to-date theory and practice in the discipline.
		4.5 A variety of instructional materials is used in the course.
			Course Design: Content Composition and Structures
			1.2 The items on the course menu are available or set on a timed release schedule and "chunked" in manageable segments (i.e., presented in distinct learning units or modules).
			Accessibility
			4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided.

	and relevant problems, or make sense of complex ideas in creative ways		

	Minimize threats and distractions (7.3) e.g.,
	• Create an accepting and supportive classroom climate
	• Vary the level of novelty or risk
	  ○ Charts, calendars, schedules, visible timers, cues, etc. that can increase the predictability of daily activities and transitions
	  ○ Creation of class routines
	  ○ Alerts and previews that can help learners anticipate and prepare for changes in activities, schedules, and novel events
	  ○ Options that can, in contrast to the above, maximize the unexpected, surprising, or novel in highly routinized activities
	• Vary the level of sensory stimulation
	  ○ Variation in the presence of background noise
		Course Overview and Introduction
		1.1 Instructions make clear how to get started and where to find various course components.
		1.5 Minimum technology requirements for the course are clearly stated, and information on how to obtain the technologies is provided.
		1.6 Computer skills and digital information literacy skills expected of the learner are clearly stated.
		1.7 Expectations for prerequisite knowledge in the discipline and/or any required competencies are clearly stated.
		1.8 The self-introduction by the instructor is professional and is available online.
		1.9 Learners are asked to introduce themselves to the class.
			Course Design: Content Composition and Structures
			1.1 A Blackboard course menu is built for students to navigate through a course. The menu should be clearly labeled with the important elements of the course listed. The course menu contains the following items that are visible to the students from the start of the course:
			1. Start Here or Welcome Module
			2. Syllabus
			3. Announcements
			4. Course Content
			5. Synchronous meeting link (if applicable)
			6. My Grades
			7. Student Services
			8. Institutional Policies
			9. Library Resources
			1.2 The items on the course menu are available or set on a timed release schedule and "chunked" in manageable segments (i.e., presented in distinct learning units or modules).
			1.3 The Start Here or Welcome module contains an introductory video from the instructor. This video should contain important details of the course that you would cover on the first day of an on-ground course. Specific details related to the online

	or visual stimulation, noise buffers, number of features or items presented at a time ○ Variation in pace of work, length of work sessions, availability of breaks or time-outs, or timing or sequence of activities • Vary the social demands required for learning or performance, the perceived level of support and protection and the requirements for public display and evaluation • Involve all participants in whole class discussions		course should be included such as a brief course menu overview to help students familiarize themselves with the course layout, expectations for learner interaction with the course, instructor availability, method of contact and timing of responses, schedule and site for synchronous meetings (if applicable), communication of grading feedback, and where to go for assistance. 1.4 Contact Information for the instructor is contained in a visible and obvious location (can be the syllabus). Contact information includes best method of contact, office hours, method of office hours (online or on-ground), technology used for online hours, and estimated response time.
Sustaining Effort & Persistence	**Heighten salience of goals and objectives** (8.1) e.g., • Prompt or require learners to explicitly formulate or restate goal • Display the goal in multiple ways • Encourage division of long-term goals into short-term objectives • Demonstrate the use of hand-held or computer-based scheduling tools • Use prompts or scaffolds for visualizing desired outcome	**Course Overview and Introduction** 1.2 Learners are introduced to the purpose and structure of the course. **Learning Objectives (Competencies)** 2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable. 2.2 The module/unit-level learning objectives or competencies describe	**Course Design: Content Composition and Structures** 1.6 Important/due dates are on the course calendar, listed in a chart or are easily accessible to students. **Course Design: Goals and Objectives** 1.8 Course and module goals and objectives are clearly written, appropriate for the course level, measurable and aligned to desired outcomes. 1.9 Course and module goals and objectives show a clear relationship to each other, are easily located within the course and visible in a variety of areas

	• Engage learners in assessment discussions of what constitutes excellence and generate relevant examples that connect to their cultural background and interest	outcomes that are measurable and consistent with the course-level objectives or competencies.	(i.e., within the syllabus and each individual learning unit).
	Vary demands and resources to optimize challenge (8.2) e.g., • Differentiate the degree of difficulty or complexity within which core activities can be completed • Provide alternatives in the permissible tools and scaffolds • Vary the degrees of freedom for acceptable performance • Emphasize process, effort, improvement in meeting standards as alternatives to external evaluation and competition	**Instructional Materials** 4.5 A variety of instructional materials is used in the course.	**Accessibility** 4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided.
	Foster collaboration and community (8.3) e.g., • Create cooperative learning groups with clear goals, roles, and responsibilities • Create school-wide programs of positive behavior support with differentiated objectives and supports • Provide prompts that guide learners in when and how	**Learning Activities and Learner Interactions** 5.2 Learning activities provide opportunities for interaction that support active learning. 5.3 The instructor's plan for interacting with learners during the course is clearly stated. **Course Technology** 6.4 The course provides learners with information	**Pre-Course Communication** Communication is sent to the students prior to the start of class to establish how and when they are expected to participate online. The method of course meetings is clearly defined and the links with the schedule is provided. Links to tutorials and online resources for students are provided. **Course Design** 1.7 The synchronous (or live) course meeting link is on the

	to ask peers and/or teachers for help • Encourage and support opportunities for peer interactions and supports (e.g., peer-tutors) • Construct communities of learners engaged in common interests or activities • Create expectations for group work (e.g., rubrics, norms, etc.)	on protecting their data and privacy. **Accessibility and Usability** 8.6 Vendor accessibility statements are provided for all technologies required in the course.	course menu and is obvious to students as the location to attend the sessions live. **Interaction & Collaboration: Interaction** 2.1 There are opportunities for synchronous (e.g., live meetings, chat) and/or asynchronous (e.g., discussion board, email) interaction, as appropriate. **Interaction & Collaboration: Online Learning Community Opportunities** 2.3 Opportunities exist in the course for student to student and student to faculty interactions that build a sense of community and enhance engagement. The opportunities allow discussion, reflection, and collaborative teamwork. (e.g. discussion board forums, online study groups, use of break-out rooms and synchronous meetings with time for question and answer, etc.).
	Increase mastery-oriented feedback (8.4) e.g., • Provide feedback that encourages perseverance, focuses on development of efficacy and self-awareness, and encourages the use of specific supports and strategies in the face of challenge • Provide feedback that emphasizes effort, improvement, and	**Assessment and Measurement** 3.1 The assessments measure the achievement of the stated learning objectives or competencies. 3.4 The assessments used are sequenced, varied, and suited to the level of the course. 3.5 The course provides learners with multiple opportunities to track their	**Assessments** 3.1 Multiple types of assessment activities occur frequently throughout the duration of the course. 3.2 Assessment feedback is given in a reasonable amount of time. 3.3 A rubric or equivalent grading document is included for assignments where appropriate. 3.4 The instructor's method of collected and returning assignments are clearly defined.

	achieving a standard rather than on relative performance • Provide feedback that is frequent, timely, and specific • Provide feedback that is substantive and informative rather than comparative or competitive • Provide feedback that models how to incorporate evaluation, including identifying patterns of errors and wrong answers, into positive strategies for future success	learning progress with timely feedback.	
Self Regulation	**Promote expectations and beliefs that optimize motivation** (9.1) e.g., • Provide prompts, reminders, guides, rubrics, checklists that focus on: o Self-regulatory goals like reducing the frequency of aggressive outbursts in response to frustration o Increasing the length of on-task orientation in the face of distractions o Elevating the frequency of self-reflection and self-reinforcements • Provide coaches, mentors, or agents that model the	**Course Overview and Introduction** 1.3 Communication expectations for online discussions, email, and other forms of interaction are clearly stated **Instructional Materials** 4.1 The instructional materials contribute to the achievement of the stated learning objectives or competencies.	**Interaction & Collaboration: Interaction** 2.2 Interaction expectations are clearly defined (e.g., quantity of interactions, levels of participation, etc.) and presented online.

	process of setting personally appropriate goals that take into account both strengths and weaknesses • Support activities that encourage self-reflection and identification of personal goals		
	Facilitate personal coping skills and strategies (9.2) e.g., Provide differentiated models, scaffolds and feedback for: • Managing frustration • Seeking external emotional support • Developing internal controls and coping skills • Appropriately handling subject specific phobias and judgments of "natural" aptitude (e.g., "how can I improve on the areas I am struggling in?" rather than "I am not good at math") • Use real life situations or simulations to demonstrate coping skills	**Learner Support** 7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it. 7.2 Course instructions articulate or link to the institution's accessibility policies and services. 7.3 Course instructions articulate or link to the institution's academic support services and resources that can help learners succeed in the course. 7.4 Course instructions articulate or link to the institution's student services and resources that can help learners succeed.	**Course Design: Content Composition and Structures** 1.5 Student resources such as technical support, institutional polices and library resources are visible (can be the resource links provided through the CCSU template).
	Develop self-assessment and reflection (9.3) e.g., • Offer devices, aids, or charts to assist individuals in learning to collect, chart and display data from their own behavior for the	**Learning Activities and Learner Interactions** 5.4 The requirements for learner interaction are clearly stated.	**Assessment: Self-Assessment** 3.5 Opportunities for student self-assessment are provided (e.g., practice test, journal, self-reflection, pre-quiz). These provide constructive meaningful feedback.

	purpose of monitoring changes in those behaviors • Use activities that include a means by which learners get feedback and have access to alternative scaffolds (e.g., charts, templates, feedback displays) that support understanding progress in a manner that is understandable and timely		
Perception	**Offer ways of customizing the display of information** (1.1) e.g., • Display information in a flexible format so that the following perceptual features can be varied: o The size of text, images, graphs, tables, or other visual content o The contrast between background and text or image o The color used for information or emphasis o The volume or rate of speech or sound o The speed or timing of video, animation, sound, simulations, etc. o The layout of visual or other elements o The font used for print materials	**Instructional Materials** 4.5 A variety of instructional materials is used in the course.	**Accessibility** 4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided. 4.2 Uploaded content (files, images, etc.) in Blackboard has been reviewed using the built-in accessibility checker. Any issues have been rectified and a green indicator* appears next to the content item.

	Offer alternatives for auditory information (1.2) e.g., • Use text equivalents in the form of captions or automated speech-to-text (voice recognition) for spoken language • Provide visual diagrams, charts, notations of music or sound • Provide written transcripts for videos or auditory clips • Provide American Sign Language (ASL) for spoken English • Use visual analogues to represent emphasis and prosody (e.g., emoticons, symbols, or images) • Provide visual or tactile (e.g., vibrations) equivalents for sound effects or alerts • Provide visual and/or emotional description for musical interpretation	**Instructional Materials** 4.5 A variety of instructional materials is used in the course.	**Accessibility** 4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided. 4.4 Closed Captions are provided for all video content.
	Offer alternatives for visual information (1.3) e.g., • Provide descriptions (text or spoken) for all images, graphics, video, or animations • Use touch equivalents (tactile graphics or objects of reference) for key visuals that represent concepts	**Instructional Materials** 4.5 A variety of instructional materials is used in the course.	**Accessibility** 4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided.

	• Provide physical objects and spatial models to convey perspective or interaction • Provide auditory cues for key concepts and transitions in visual information • Follow accessibility standards (NIMAS, DAISY, etc.) when creating digital text • Allow for a competent aide, partner, or "intervener" to read text aloud • Provide access to text-to-speech software		
Language & Symbols	**Clarify vocabulary and symbols** (2.1) e.g., • Pre-teach vocabulary and symbols, especially in ways that promote connection to the learners' experience and prior knowledge • Provide graphic symbols with alternative text descriptions • Highlight how complex terms, expressions, or equations are composed of simpler words or symbols • Embed support for vocabulary and symbols within the text (e.g., hyperlinks or footnotes to definitions, explanations, illustrations, previous coverage, translations)	**Instructional Materials** 4.5 A variety of instructional materials is used in the course. **Accessibility and Usability** 8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.	**Accessibility** 4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided. 4.3 Multimedia (pictures, videos, presentations) and course materials provided are in a standard format (i.e. MP4 or MOV) that is of good quality.

	• Embed support for unfamiliar references within the text (e.g., domain specific notation, lesser known properties and theorems, idioms, academic language, figurative language, mathematical language, jargon, archaic language, colloquialism, and dialect)		
	Clarify syntax and structure (2.2) e.g., • Clarify unfamiliar syntax (in language or in math formulas) or underlying structure (in diagrams, graphs, illustrations, extended expositions or narratives) through alternatives that: ○ Highlight structural relations or make them more explicit ○ Make connections to previously learned structures ○ Make relationships between elements explicit (e.g., highlighting the transition words in an essay, links between ideas in a concept map, etc.)	**Instructional Materials** 4.5 A variety of instructional materials is used in the course. **Accessibility and Usability** 8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.	
	Support decoding of text, mathematical notation, and symbols (2.3) e.g.,	**Instructional Materials** 4.5 A variety of instructional materials is used in the course.	

	• Allow the use of Text-to-Speech • Use automatic voicing with digital mathematical notation (Math ML) • Use digital text with an accompanying human voice recording (e.g., Daisy Talking Books) • Allow for flexibility and easy access to multiple representations of notation where appropriate (e.g., formulas, word problems, graphs) • Offer clarification of notation through lists of key terms	**Accessibility and Usability** 8.2 The course design facilitates readability. 8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.	
	Promote understanding across languages (2.4) e.g., • Make all key information in the dominant language (e.g., English) also available in first languages (e.g., Spanish) for learners with limited-English proficiency and in ASL for learners who are deaf • Link key vocabulary words to definitions and pronunciations in both dominant and heritage languages • Define domain-specific vocabulary (e.g., "map key" in social studies) using both domain-specific and common terms	**Instructional Materials** 4.5 A variety of instructional materials is used in the course. **Accessibility and Usability** 8.2 The course design facilitates readability.	

	• Provide electronic translation tools or links to multilingual glossaries on the web • Embed visual, non-linguistic supports for vocabulary clarification (pictures, videos, etc)		
	Illustrate through multiple media (2.5) e.g., • Present key concepts in one form of symbolic representation (e.g., an expository text or a math equation) with an alternative form (e.g., an illustration, dance/movement, diagram, table, model, video, comic strip, storyboard, photograph, animation, physical or virtual manipulative) • Make explicit links between information provided in texts and any accompanying representation of that information in illustrations, equations, charts, or diagrams	**Instructional Materials** 4.5 A variety of instructional materials is used in the course.	
Comprehension	**Activate or supply background knowledge** (3.1) e.g., • Anchor instruction by linking to and activating relevant prior knowledge (e.g., using visual imagery,		

	concept anchoring, or concept mastery routines) • Use advanced organizers (e.g., KWL methods, concept maps) • Pre-teach critical prerequisite concepts through demonstration or models • Bridge concepts with relevant analogies and metaphors • Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)		
	Highlight patterns, critical features, big ideas, and relationships (3.2) e.g., • Highlight or emphasize key elements in text, graphics, diagrams, formulas • Use outlines, graphic organizers, unit organizer routines, concept organizer routines, and concept mastery routines to emphasize key ideas and relationships • Use multiple examples and non-examples to emphasize critical features • Use cues and prompts to draw attention to critical features • Highlight previously learned skills that can be		

	used to solve unfamiliar problems		
	Guide information processing and visualization (3.3) e.g., • Give explicit prompts for each step in a sequential process • Provide options for organizational methods and approaches (tables and algorithms for processing mathematical operations) • Provide interactive models that guide exploration and new understandings • Introduce graduated scaffolds that support information processing strategies • Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media) • "Chunk" information into smaller elements • Progressively release information (e.g., sequential highlighting) • Remove unnecessary distractions unless they are essential to the instructional goal	**Accessibility and Usability** 8.3 The course provides accessible text and images in files, documents, LMS pages, and web pages to meet the needs of diverse learners.	
	Maximize transfer and generalization (3.4) e.g.,	**Instructional Materials** 4.3 The course models the academic integrity	**Course Design: Content Composition and Structures**

	• Provide checklists, organizers, sticky notes, electronic reminders • Prompt the use of mnemonic strategies and devices (e.g., visual imagery, paraphrasing strategies, method of loci, etc.) • Incorporate explicit opportunities for review and practice • Provide templates, graphic organizers, concept maps to support note-taking • Provide scaffolds that connect new information to prior knowledge (e.g., word webs, half-full concept maps) • Embed new ideas in familiar ideas and contexts (e.g., use of analogy, metaphor, drama, music, film, etc.) • Provide explicit, supported opportunities to generalize learning to new situations (e.g., different types of problems that can be solved with linear equations, using physics principles to build a playground) • Offer opportunities over time to revisit key ideas and linkages between ideas	expected of learners by providing both source references and permissions for use of instructional materials.	1.2 The items on the course menu are available or set on a timed release schedule and "chunked" in manageable segments (i.e., presented in distinct learning units or modules). **Assessments** 3.1 Multiple types of assessment activities occur frequently throughout the duration of the course
Physical Action	**Vary the methods for response and navigation** (4.1) e.g.,	**Accessibility and Usability** 8.1 Course navigation facilitates ease of use.	**Accessibility**

	• Provide alternatives in the requirements for rate, timing, speed, and range of motor action required to interact with instructional materials, physical manipulatives, and technologies • Provide alternatives for physically responding or indicating selections (e.g., alternatives to marking with pen and pencil, alternatives to mouse control) • Provide alternatives for physically interacting with materials by hand, voice, single switch, joystick, keyboard, or adapted keyboard	**Course Technology** 6.1 The tools used in the course support the learning objectives or competencies. 6.2 Course tools promote learner engagement and active learning.	4.1 Alternative resources* (e.g. ePub, electronic braille, audio file, html, etc.) are provided.
	Optimize access to tools and assistive technologies (4.2) e.g., • Provide alternate keyboard commands for mouse action • Build switch and scanning options for increased independent access and keyboard alternatives • Provide access to alternative keyboards • Customize overlays for touch screens and keyboards • Select software that works seamlessly with keyboard alternatives and alt keys	**Course Technology** 6.1 The tools used in the course support the learning objectives or competencies. 6.2 Course tools promote learner engagement and active learning. 6.3 A variety of technology is used in the course.	**Course Design: Content Composition and Structures** 1.5 Student resources such as technical support, institutional polices and library resources are visible (can be the resource links provided through the CCSU template).

Expression & Communication	**Use multiple media for communication** (5.1) e.g., • Compose in multiple media such as text, speech, drawing, illustration, comics, storyboards, design, film, music, dance/movement, visual art, sculpture, or video • Use physical manipulatives (e.g., blocks, 3D models, base-ten blocks) • Use social media and interactive web tools (e.g., discussion forums, chats, web design, annotation tools, storyboards, comic strips, animation presentations) • Solve problems using a variety of strategies	**Course Technology** 6.3 A variety of technology is used in the course. **Accessibility and Usability** 8.5 Course multimedia facilitate ease of use.	**Assessments** 3.1 Multiple types of assessment activities occur frequently throughout the duration of the course
	Use multiple tools for construction and composition (5.2) e.g., • Provide spellcheckers, grammar checkers, word prediction software • Provide text-to-speech software (voice recognition), human dictation, recording • Provide calculators, graphing calculators, geometric sketchpads, or pre-formatted graph paper • Provide sentence starters or sentence strips	**Course Technology** 6.3 A variety of technology is used in the course.	

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