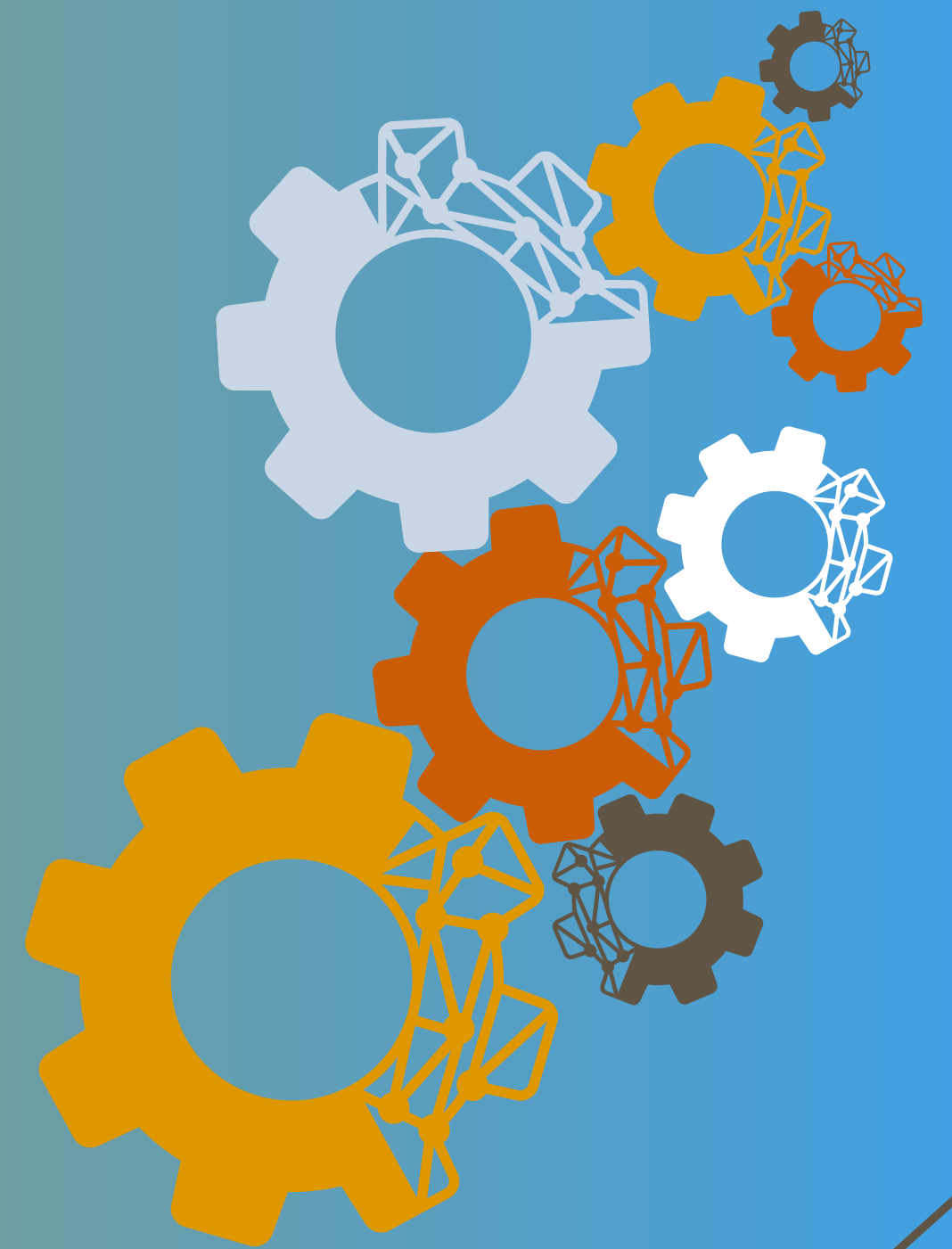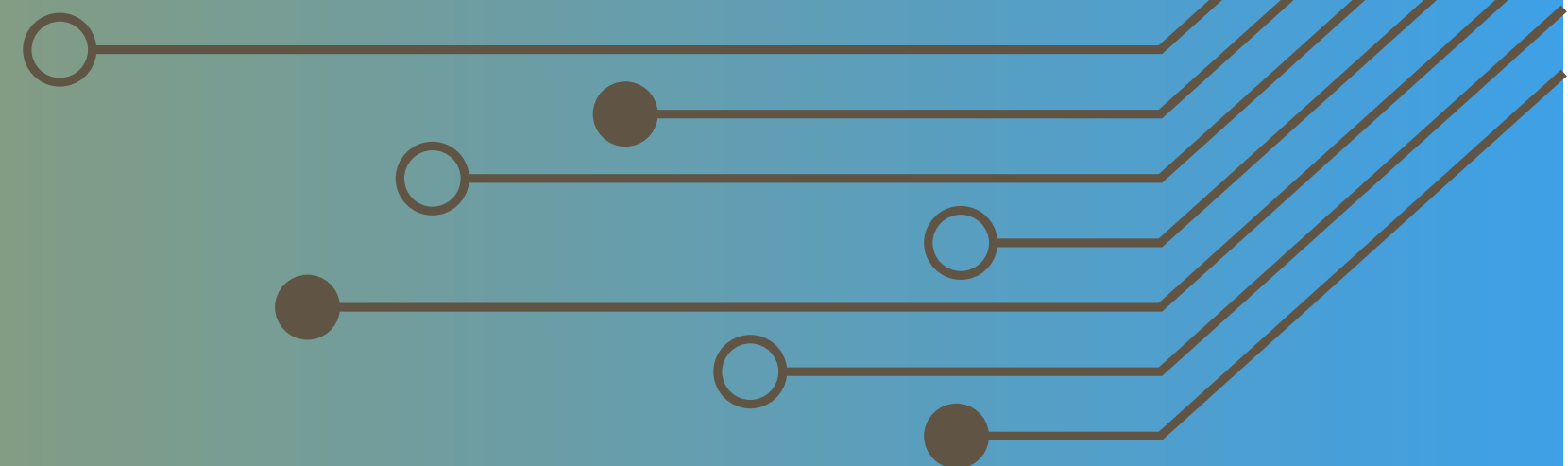# EQUITY-FIRST FRAMEWORK FOR DIGITAL COURSEWARE TOOLKIT
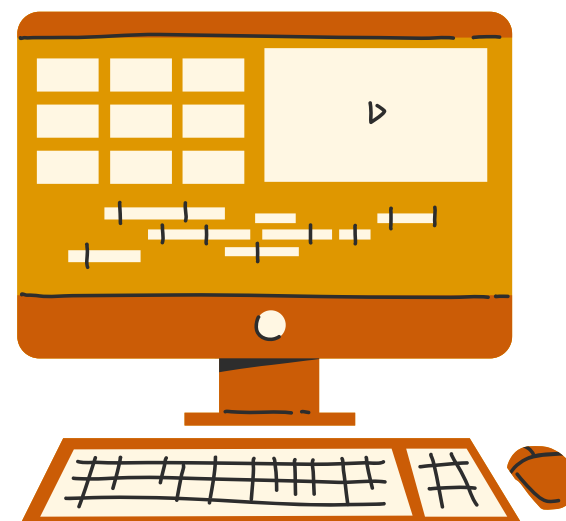
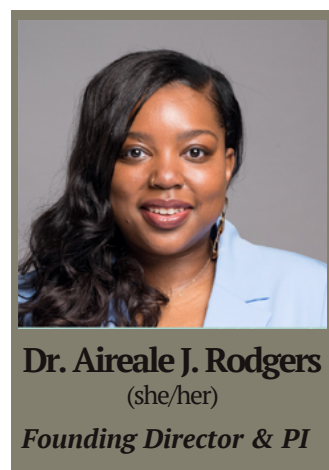TRANSGRESSIVE TEACHING COLLABORATIVE

ABOUT THE TRANSGRESSIVE TEACHING COLLABORATIVE

The Transgressive Teaching Collaborative, LLC (TTC) is a Black woman-owned and operated consulting practice aimed at transforming postsecondary teaching and learning into "a practice of freedom" (hooks, 1994). Founded by Dr. Aireale J. Rodgers, a critical learning scientist of higher education, The TTC offers a variety of services aimed at colleges and universities, disciplinary societies, and organizations committed to supporting faculty development efforts, such as keynote talks, workshops, participatory course (re)design processes, and strategic planning. The TTC has had the privilege of supporting learning communities at the Bill & Melinda Gates Foundation, Lumen Learning, Tyton Partners, University of California, Los Angeles, University of Colorado-Boulder, Colorado Community College System, Scripps College, University of Southern California, State University of New York, the Inclusive Graduate Education Network, and the American Physical Society (AGEP-GRS).
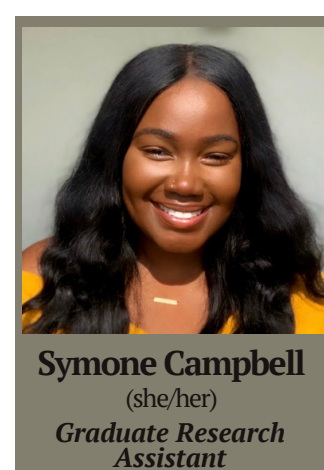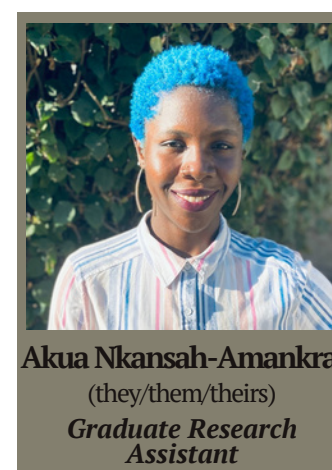
MEET THE TEAM!
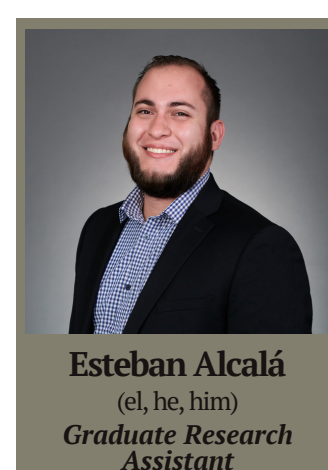
Dr. Aireale J. Rodgers
(she/her)
Founding Director & PI

Ruby Bafu
(she/her)
Graduate Research Assistant

Symone Campbell
(she/her)
Graduate Research Assistant

Akua Nkansah-Amankra
(they/them/theirs)
Graduate Research Assistant

Esteban Alcalá
(el, he, him)
Graduate Research Assistant

Asya Spears
(she/her)
Project Coordinator

Rocio Bautista
(she/her)
Graphic Designer

How to cite ▶

Rodgers, A. J., Bafu, R., Campbell, S., Nkansah-Amankra, A., Alcalá, E., & Spears, A. (2023). Equity-First Framework for Digital Courseware Toolkit. Chicago, IL: Transgressive Teaching Collaborative.

Acknowledgements

Feedback or Questions?
Contact Dr. Aireale J. Rodgers via email at:
transgressiveteaching [at] airealejoi [dot] com

GLOSSARY

DIVERSITY v. EQUITY

"A diversity lens focuses only on bringing more students into an unequal pathway. In contrast, equity redirects resources to the pathways with the greatest need to fix barriers and intentionally provide support" – Center for Urban Education at the University of Southern California (USC)

COURSEWARE

"Digital courseware is instructional content that is scoped and sequenced to support the delivery of an entire course through software built specifically for educational purposes. It includes an assessment to inform personalization of instruction and is equipped for adoption across a range of institutional types and learning environments." – Courseware in Context

EQUITY-MINDEDNESS

"The perspective or mode of thinking exhibited by practitioners who call attention to patterns of inequity in student outcomes." Equity-minded practitioners take personal and institutional responsibility for the success of their students and work to create new systems that lead to justice for rather than oppression of racially minoritized students. – Center for Urban Education at the USC

GLOSSARY

NEOLIBERALISM

Refers to a set of economic, regulatory policies which supports privatization of the public good as well as the value of competition, meritocracy, and individualism. Neoliberal policies also tend to define success through production and labor and place blame for the lack of success on the individual. Many scholars describe ed-tech initiatives as being rooted In neoliberalism, which runs the risk of privileging profit over purpose (Darling-Aduana et al., 2022; Regele, 2020) .

PRIVILEGE

Refers to the advantages and benefits that members of dominant groups experience on personal, interpersonal, cultural, and institutional levels at the expense of non-dominant groups. In the U.S., privilege is often granted to white people, men, able-bodied people, heterosexual people, Christians, U.S. citizens, and English speakers. Although those in dominant groups are sometimes unaware of their privilege, it shapes our lived experiences.
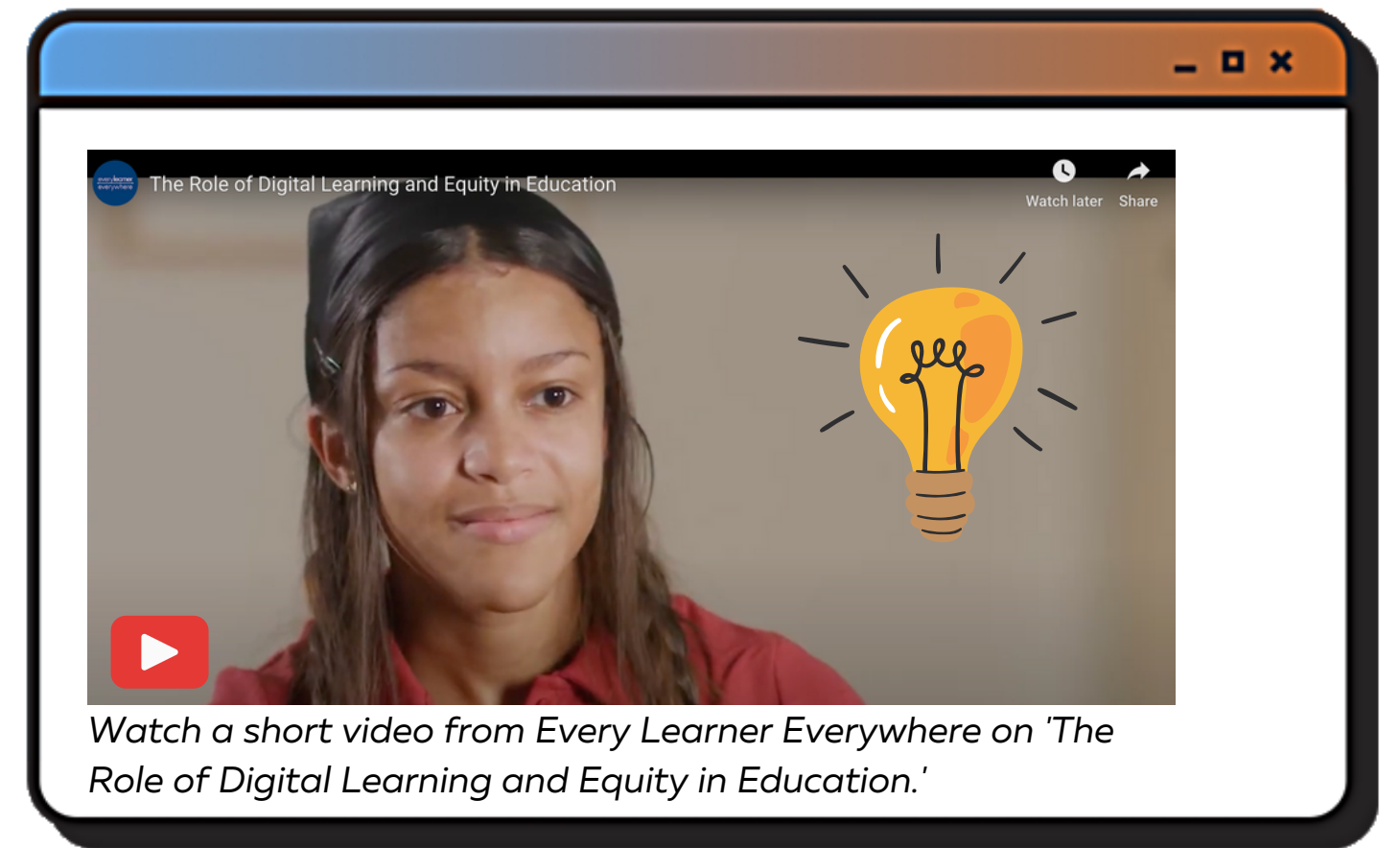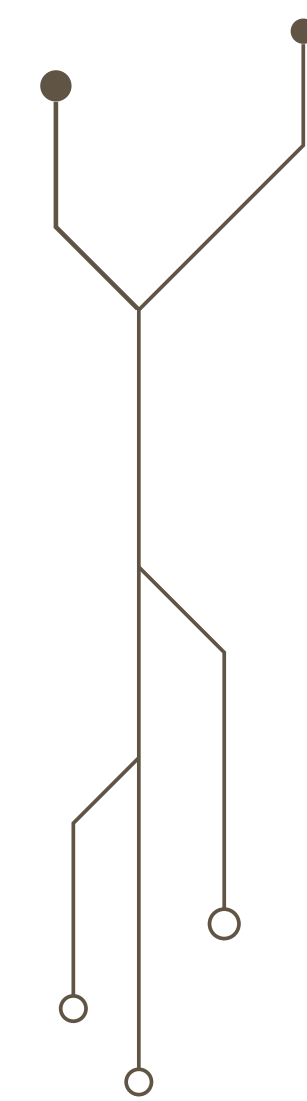
(FALLACY OF) WHITE SUPREMACY

"A political, economic, and cultural system in which whites overwhelmingly control power and material resources, conscious and unconscious ideas of white superiority and entitlements are widespread, and relations of white dominance and non-white subordination are daily reenacted across a broad array of institutions and social settings" (Ansley, 1997, p. 592).

DIGITAL COURSEWARE IN HIGHER ED

In an era of increased engagement and investment in e-learning, attending to the possibilities and pitfalls of digital learning in higher education is increasingly important. With the onset of the COVID-19 pandemic and the subsequent closure of college campuses worldwide, many faculty and students were thrust into online learning in 2020. Although there are many ways postsecondary educators have implemented digital learning in their teaching (e.g., implementing digital tools into an otherwise synchronous, in-person course or using a hybrid model wherein the course is delivered partially online and in person), the use of digital courseware (e.g., software built to deliver an entire course's instructional content entirely online) has risen to prominence.

The use of digital courseware is often positioned as an equity imperative. Leveraging digital courseware is thought to make postsecondary education more accessible to historically underserved students, like racially minoritized students, students experiencing poverty, students with disabilities, and student-parents (Williams, 2021). Indeed, there are potential affordances to using digital courseware in college classrooms. For instance, digital courseware can streamline the aggregation of important data analytics on student engagement and performance in the course. When used intentionally, these data can inform faculty pedagogy in ways that help faculty provide adaptable instruction and individualized feedback to students (Phuong et al., 2017).

Watch a short video from Every Learner Everywhere on 'The Role of Digital Learning and Equity in Education.'

Yet, digital courseware is not inherently a solution. As Rodgers (2022) writes, "Digital courseware can support equity, but positioning educational technology as a silver bullet for eradicating inequity misses a significant reality: people and pedagogy also matter." These technologies are neither apolitical nor neutral – digital courseware reflects the (mis)understandings, values, and visions for the future that the people who design and use them. In this way, **attending to the learning, critical reflection, and personal development that courseware designers and instructors need to be equity-minded is vital for digital courseware to truly be a mechanism to transform higher education.**

A Call for Racial Equity

As you will notice, our discussion of equity in digital courseware unabashedly centers on **racial equity**. We focus on racial equity because racism is still an active part of people's everyday experiences in higher education. Historical underrepresentation of People of Color in the professoriate (NCES, 2019), racialized and gendered implications of the student debt crisis (Baker, 2021), persistent underfunding of minority-serving institutions (Harris, 2022; McCambly & Colyvas, 2022), and disproportionately high DFWI rates for Students of Color (Koch & Drake, 2019) are just a few examples of how racism continues to put Black people, Indigenous people, and other People of Color at higher risks of harm and exploitation. If we are not careful, our digital learning spaces can reproduce the same problematic and racist dynamics.

"We don't need an equal [number of seats] at the table; we need to build a different table completely"
- Digital Learning Expert's Reflection on Equity

Disrupting the machinery of injustice to build more equitable systems of higher education requires that we are attentive to how racial inequity is reproduced - where does inequity persist? Who or what (e.g., policies, routines, practices, dispositions) are the root causes of that persistent inequity? Who is affected by this inequity, and in what ways? Next, we design procedures that make it difficult and improbable for inequity to exist. The digital space - like courseware- offers powerful opportunities to thoughtfully reimagine how to facilitate meaningful learning experiences for racially-minoritized students.

"For me, learning sometimes involves lifting curses. It means figuring out how to poke, to play with, to tinker, to challenge racism, and to resist the cisheteropatriarchy that emerges in the everyday moments of our lives"
– *Wise words from Dr. Arturo Cortez*

Learn with Dr. Estela M. Bensimon by tuning into a recording of a talk she gave for the California Learning Labs entitled, **"The Meaning of Racial Equity."**

Learn with Dr. Milagros Castillo-Montoya as she discusses '**Creating an Educational Ecosystem that Embraces Racial and Ethnic Diversity.'**

EQUITY-FIRST FRAMEWORK FOR DIGITAL COURSEWARE (EFF)
(Rodgers, 2022)

Given the myriad ways inequity can creep into the design and use of digital courseware, it is important to identify the design dimensions (e.g., the technical and curricular capabilities of the courseware) and pedagogical elements (e.g., how instructors employ courseware for instructional purposes) that can facilitate the intentional use of digital courseware for equity. Dr. Rodgers developed the Equity-First Framework for Digital Courseware, which offers a set of six dimensions that are central to cultivating expansive, equity-minded learning in online modalities: (a) interactivity and relationality, (b) individuality and differentiation, (c) critical consciousness-raising, (d) culturally responsive and student-centered pedagogy, (e) data-driven decision making, and (f) accessibility and full participation.

In an effort to ensure the framework is resonant with the priorities and experiences that impact classroom teaching and learning, the team at the TTC spent Fall 2022 and Winter 2023 getting feedback from 51 digital learning experts, STEM faculty, and college students. Throughout our information-gathering process, we contended asked:

How might we use digital courseware to cultivate rigorous and affirming learning experiences for Black, Latinx, and Indigenous students and students experiencing poverty?

Who is this toolkit for?

We designed this toolkit to support the professional learning and critical reflection of faculty and instructors who teach in postsecondary institutions. This toolkit can also spark meaningful conversations amongst higher education administrators thinking through digital learning practices in their department and instructional designers developing the technology behind courseware.

Imagining and then enacting liberatory forms of teaching and learning in a digital space is hard work! Using the EFF demands a sustained commitment to un/learning and critical reflection. This toolkit is not meant to be an exhaustive checklist. Instead, we hope to plant seeds for engaging equity-minded digital pedagogies that continue to bloom as you pursue your learning journey.

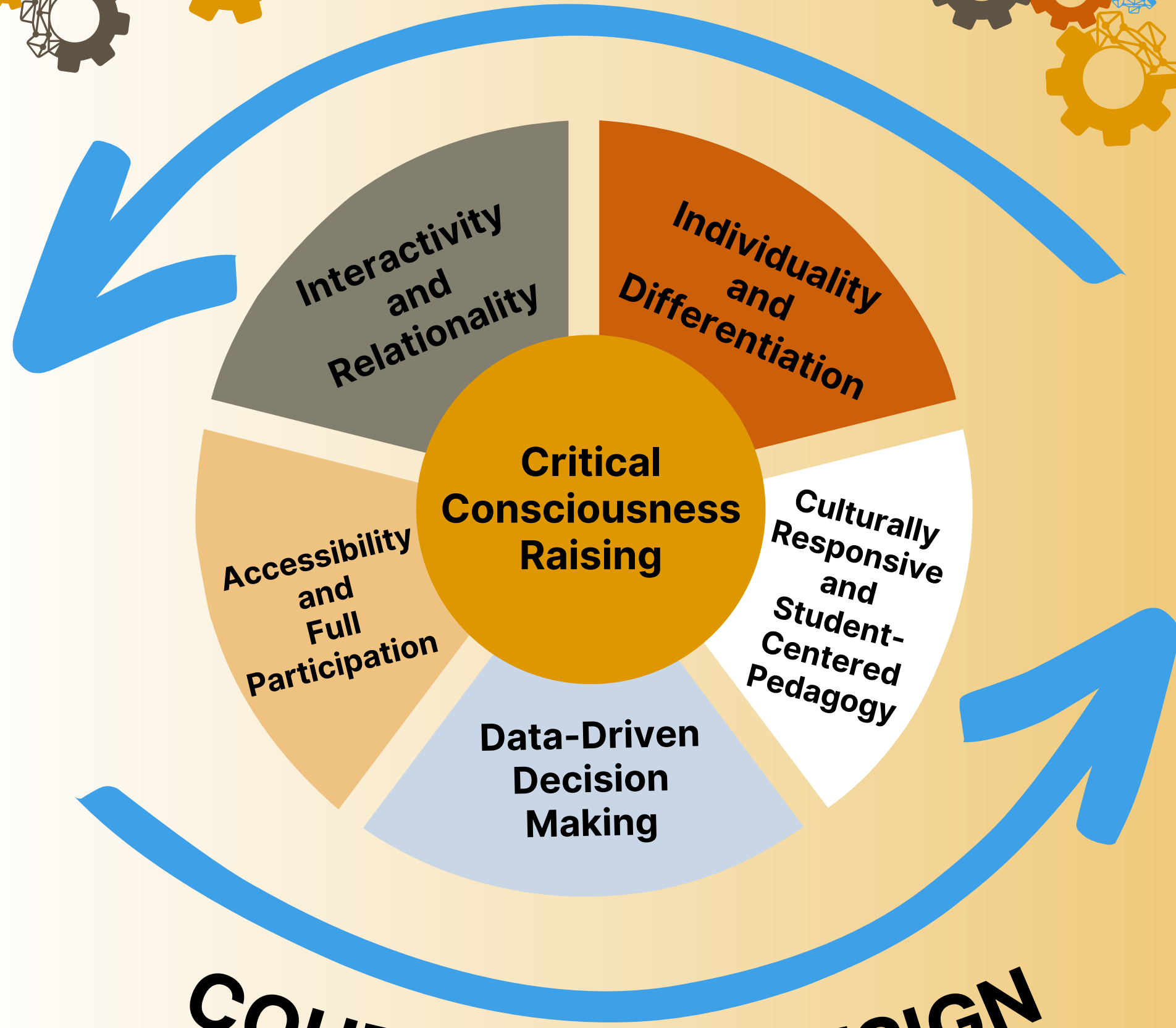**NOTES**
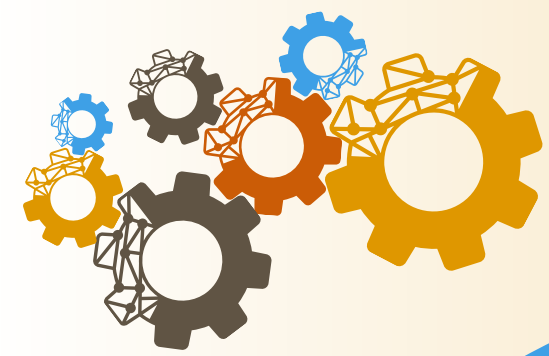
PEDAGOGY
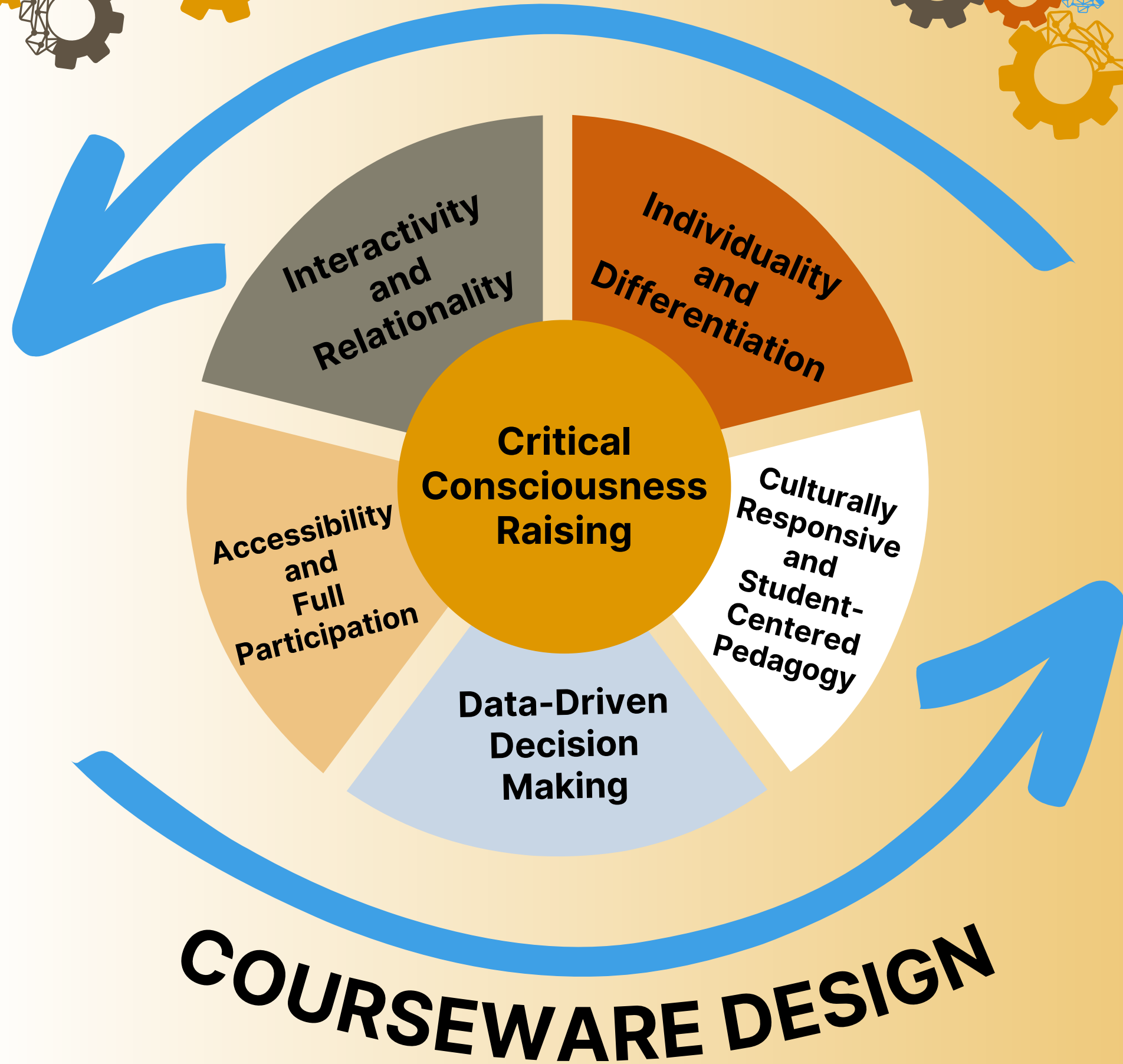
INTRODUCING THE FRAMEWORK

"The gift and challenge of digital courseware is that there is no such thing as nondenominational courseware. It has an opinion about how learning happens, and it delivers that opinion at scale."
- *Digital Learning Expert*

- We offer six dimensions to support the continued iteration of two critical aspects of digital learning: courseware design and instructor pedagogy. As a reminder, this toolkit is designed to support specifically instructor pedagogy.

- We place critical consciousness raising at the heart of the framework because we believe this must be the goal of all teaching and learning in higher education.

- The other five dimensions represent elements vital to making critical consciousness-raising more possible in online learning.

- The application of this framework will vary depending on the institution type (e.g., two-year/four-year institution, Tribal Colleges and Universities, Historically Black College and University, Hispanic Serving Institutions, Historically White Serving Institutions), disciplinary context (e.g., Chemistry v. Psychology), class size, and the social Identities and lived experiences of the instructors and students In the course.

COURSEWARE DESIGN

PEDAGOGY

Interactivity and Relationality

Individuality and Differentiation

Critical Consciousness Raising

Culturally Responsive and Student-Centered Pedagogy

Data-Driven Decision Making

Accessibility and Full Participation

COURSEWARE DESIGN

LISTEN & LEARN!

Want a break from reading? Would you rather listen to a recording of Dr. Rodgers discussing the Equity-First Framework? Enjoy this free webinar hosted by Every Learner Everywhere.

everylearner everywhere

STRATEGIES FOR SUCCESS

WEBINAR SERIES

AN EQUITY-FIRST APPROACH TO POSTSECONDARY DIGITAL LEARNING
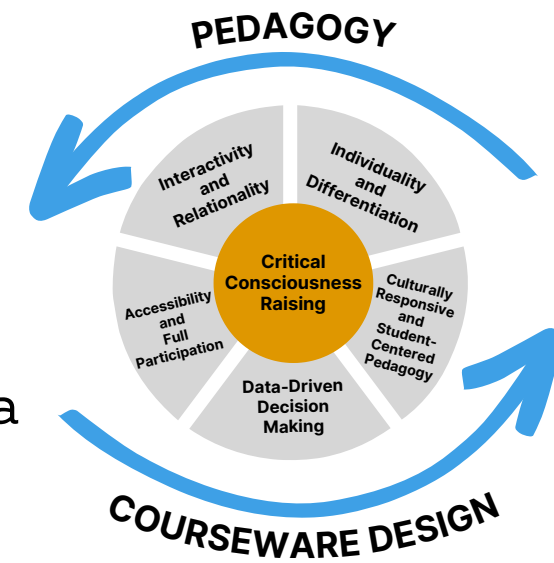AIREALE J. RODGERS

CRITICAL CONSCIOUSNESS RAISING

Instructors should use the courseware in ways that support students' ability to understand, analyze, and transform structural power and oppression toward more just futures.
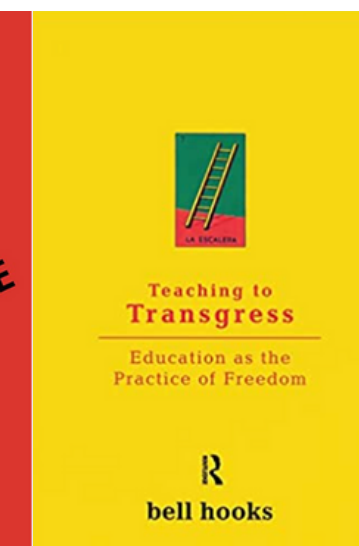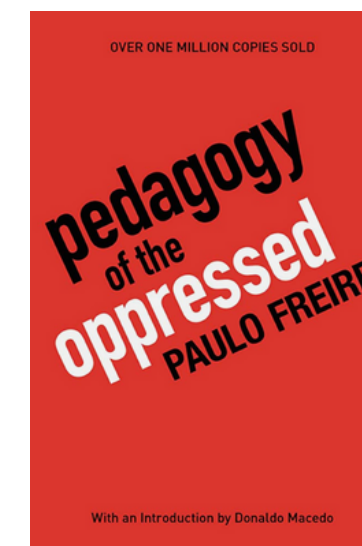
> *Critical consciousness is "learning to perceive social, political, and economic contradictions, and to take action against the oppressive elements of reality."*
> **-Paulo Freire**

Scholars have long emphasized the socializing dynamics of formal schooling (Giroux, 1985). Indeed, students learn much more than just subject matter in college courses – they are also exposed to ideologies and beliefs that shape how they understand their role in society. Yet, the political and ethical dimensions of students' learning in college do not always guide pedagogy. As Pennerman (2023) noted, "The exclusion of public discourse on social and political matters from the classroom further encourages the notion of educational institutions as silos of society encased in a thick glass wall." At the TTC, we seek to shatter that glass. Informed by Paulo Freire's conceptualization of critical consciousness, we believe the ultimate goal of learning in higher education is enhancing students' ability to use what they learn to create more just futures in self–determined and interdependent ways.

In a world filled with injustice, and schools functioning as sites that reproduce those injustices, Freire argued that students deserve a liberatory education that supports students in addressing real–world, consequential problems. Thus, digital courseware must prioritize raising students' critical consciousness by ensuring that course content, assignments, and learning objectives empower students to critically interrogate culture and systemic inequity in their communities.

Related Readings

OVER ONE MILLION COPIES SOLD

pedagogy of the oppressed
PAULO FREIRE

With an Introduction by Donaldo Macedo

Teaching to Transgress
Education as the Practice of Freedom

R
bell hooks

aashe
Pedagogies for Cultivating Critical Consciousness: Principles for Teaching and Learning to Engage with Racial Equity, Social Justice, and Sustainability
By Jordan King & Carlos R. Casanova

CRITICAL PEDAGOGY, CULTURAL POLITICS AND THE DISCOURSE OF EXPERIENCE

HENRY A. GIROUX
Miami University, Oxford, Ohio

This article examines the way in which various educational discourses develop forms of pedagogical practice through the construction and legitimation of teacher and student experience. Specifically, the article analyzes how traditional and liberal discourses treat the intersection of culture, power, and knowledge in fashioning a view of teaching and learning. The author argues that both of these traditions fail as modes of critical pedagogy and that it is necessary to develop a critical discourse that embraces pedagogy as a form of cultural politics. The article concludes by drawing from some recent critical work on theories of production, textual analysis, and lived cultures and attempting to illustrate the relevance of these traditions for a critical pedagogy.

CRITICAL CONSCIOUSNESS RAISING

Considerations for Pedagogy...

As you reflect on how to raise students' critical consciousness in your course, ask yourself:

What origin story of the discipline are students exposed to in your course?

Who is (not) considered part of the canon? What social identities (e.g., race, gender, nationality, class) and epistemologies (e.g., ways of knowing and systems of knowledge) do they share and exclude?

Whom do you present as 'doers' of the disciplines? How might this shape students' perceptions of fit and belonging in the field?

How do you encourage students to use what they learn in the course to tackle real-world issues and eradicate injustice?

NOTES

INTERACTIVITY AND RELATIONALITY

Instructors should facilitate opportunities for meaningful and affirming faculty-student and student-student interactions using courseware and other digital platforms.

"When the field talks about innovation, it's about technical evolutions, not problems of practice. Real innovation comes from social solutions to social problems. If there's a problem of racial inequity, the most innovative solution requires us to reorganize relations."
- Digital Learning Expert

Drawing on years of educational research, tremendous evidence shows that social interaction is a powerful mediator for student learning. Notably, positive interactions between faculty and students in college settings are known to be associated with increased academic achievement, especially for students of color (Hurtado, 2001; Lundberg & Schreiner, 2004). Yet, these types of interactions can be few and far between. Given how commonplace experiences of epistemic exclusion, invalidation, and microaggressions are for students of color in higher education, the increased frequency of faculty-student interactions can ironically reproduce harm. Thus, we focus not on interactions but instead on relationality.

We take inspiration from Indigenous notions of relationality that embrace the recognition that we are all interconnected and interdependent. Relationality, then, is both a source of strength and a necessary condition for deep learning. Rejecting individualistic and extractivist approaches to education to instead create pathways for students and instructors to learn communally from each other, our cultures, our ancestors, and our world is hard work. And when courseware limits (or even forecloses) direct instructional interactions, relationality is made even less likely. However, leveraging the interactive features of digital courseware can be a helpful way to promote learning.

Related Readings

Research Is Ceremony
Indigenous Research Methods

Shawn Wilson
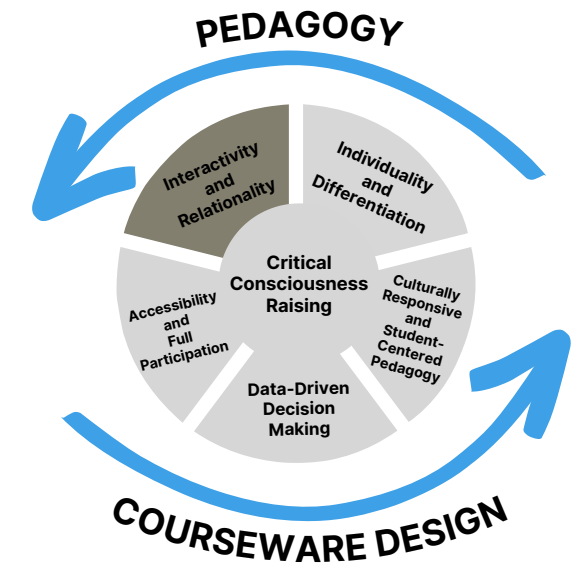
Springer Link
Home > The Urban Review > Article
Original Research | Published: 15 February 2020
In Pursuit of Meaningful Relationships: How Black Males Perceive Faculty Interactions in STEM
Sharon Fries-Britt & Damani White-Lewis
The Urban Review 52, 521–540 (2020) | Cite this article
733 Accesses | 12 Citations | 16 Altmetric | Metrics

Springer Link
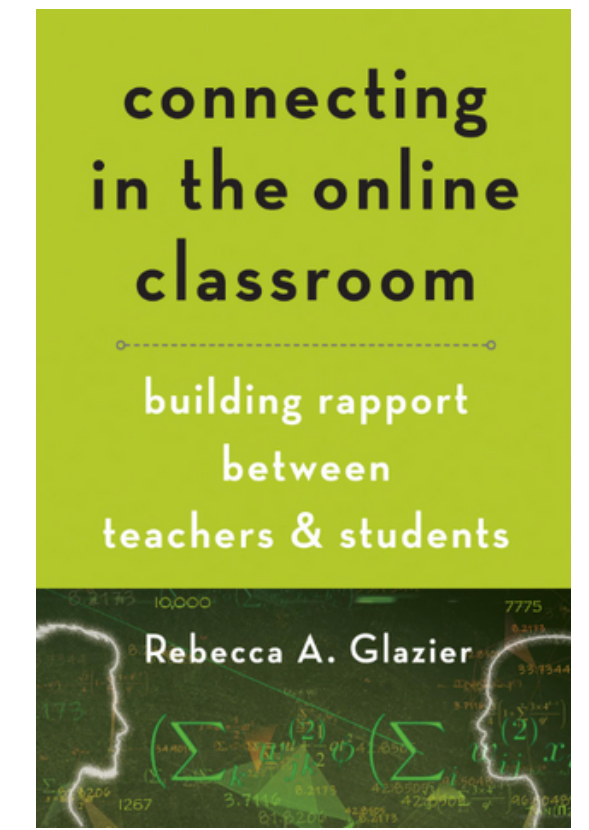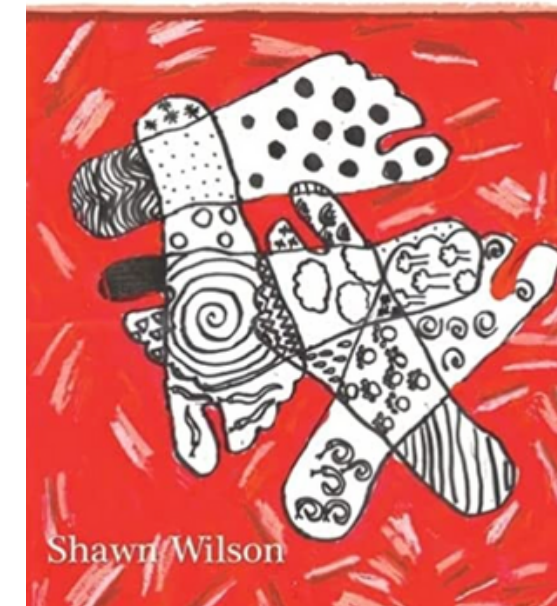Home > Innovative Higher Education > Article
Open Access | Published: 30 September 2020
"The Ones that Care Make all the Difference": Perspectives on Student-Faculty Relationships
Mariana T. Guzzardo, Nidhi Khosla, Annis Lee Adams, Jeffra D. Bussmann, Alina Engelman, Natalie Ingraham, Ryan Gamba, Ali Jones-Bey, Matthew D. Moore, Negin R. Toosi & Sarah Taylor
Innovative Higher Education 46, 41–58 (2021) | Cite this article
10k Accesses | 16 Citations | 9 Altmetric | Metrics

connecting in the online classroom

building rapport between teachers & students

Rebecca A. Glazier

INTERACTIVITY & RELATIONALITY

Considerations for Practice

- Co-create commitments for how you all will learn together at the start of the academic term and generate ways to hold folks accountable to them.
- Invite students to create e-introductions before the start of the course using a platform like Vimeo. This can be a fun and personalized way to get to know your students and for them to get to know each other!
- Facilitate in-class study groups for students to make sense of course materials together.
- Create opportunities for students to engage with you DURING class time.
- For asynchronous courses, provide high-quality, pre-recorded video lectures so that students get to know you.
- Leverage options for in-platform, direct messaging so students can connect with you and each other for support.

Reflection Question

What is one commitment you will make that will help you build meaningful connections with and between your students?

NOTES

Instructors should leverage courseware technology to provide appropriately individualized and differentiated learning experiences for students.

Meeting students where they are and journeying alongside them during the learning process is at the core of good teaching. Indeed, no student is the same. They come to class with various lived experiences, prior knowledge, and backgrounds with the subject matter. While "teaching to the middle" is a shared pedagogical approach, doing so often leaves students who need support to fend for themselves and students who might have extensive experience with the course content unengaged – the result being that both student groups are deprived of intellectual stimulation and consequential learning. Simply put, knowing who your students are, what they need, and what motivates them in their studies is essential to providing a quality education.

Differentiation is a process of tailoring one's pedagogy (e.g., course content, instructional approach, assignments) to meet learners' individual needs. The concept of differentiation is popular within K–12 settings but has now made its way into conversations about higher education pedagogy.

The key to differentiation is having the tools and skills to adapt one's instruction to support multiple students' ability to participate meaningfully in the course rather than seeking 'one-size-fits-all' solutions (Phuong et al., 2017). In the Adaptive Courseware Implementation Guide, Holiday and colleagues argued that courseware equipped with adaptive technology could contribute to building racially minoritized students' confidence in gateway courses and provide faculty with real-time data to support their ability to shift their pedagogy.
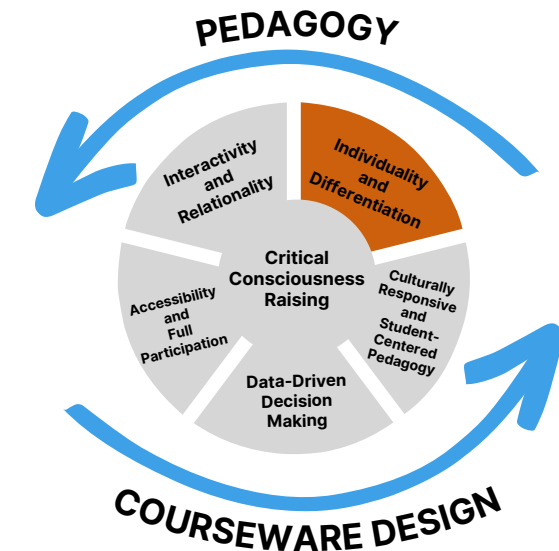
According to Tomlinson (2000), there are four key aspects to consider when trying to differentiate within the course:

- **Course Content**: What students need to learn and how students access course materials
- **Process**: The activities and participation structures students engage in to develop mastery of the subject matter
- **Products**: The deliverables/assessments/artifacts that allow students to demonstrate what they have learned and mastery of the subject matter
- **Learning Environment**: The environment or space In which learning and Instruction take place
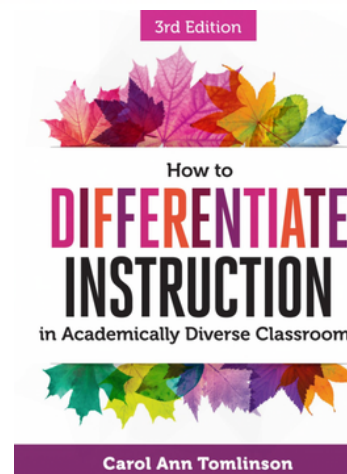
Related Readings

INDIVIDUALITY & DIFFERENTIATION

Considerations for Course Content

Vary the way you present course materials – The "sage on the stage" approach to postsecondary teaching is known to be limited in its effectiveness in promoting meaningful student learning. For instance, literature reveals that active learning, or learning by doing, reduces equity gaps in STEM course completion and academic performance for minoritized students (Theobold et al., 2020). So, you can expand your teaching beyond lecturing – consider flipped classroom models, project-based learning, peer Instruction, in-class polls, and discussion groups.

Privilege Students' Learning Goals – Of course, we have objectives for what students should learn in our courses. Yet, students also come with their own curiosities, prior knowledge, and goals for participating in the course. Ask students early and often what interests them, then create mechanisms to allow them to pursue those interests. For example, you might invite students to develop a case study related to a core concept of the course.

Considerations for Process

Be flexible with accommodations – Getting official documentation from a university's Disability Services office can be long, arduous, and often racialized. In addition to welcoming students to share official accommodations, create space for students to express what support they need to succeed in your course. Also, be ready to advocate alongside your students if you notice that an official accommodation is needed.

Reexamine course policies – Routine course policies surrounding late work, missing or being tardy to class, and having video on can be unnecessarily punitive and disadvantage working students and students with caretaking responsibilities. Rather than having zero-tolerance policies, consider offering flexibility for how students demonstrate class participation.

NOTES

INDIVIDUALITY & DIFFERENTIATION

Products

Revisit your formative assessment practices - The possibilities are unlimited when designing assessments that evaluate student learning! Yet, too often, we rely only on one type of assessment across the course. For example, STEMM faculty often use a series of normative, high-stakes assessments, like formal exams, to assess student learning. When used as the sole assessment mechanism, these exams are very narrow ways for students to demonstrate mastery of course content. They can also be inaccurate representations of learning for students who may not consider themselves good test-takers. Taking differentiation seriously in your pedagogy requires that you provide a variety of ways for students to share what they have learned throughout the course. So, in addition, or even in contrast to exams, you might invite students to give a presentation, write an essay, or work with other students to create a podcast. Or better yet, ask students for their input on what would be a meaningful assignment to demonstrate their learning and co-create the assignment together!

Learning Environment

Expand the "classroom" - A mighty affordance of online learning is the broad possibilities it opens up for how students can engage in learning. In digital spaces, especially with smartphones, many students are not confined to any four walls. Therefore, students can do their learning wherever it feels most generative. You can encourage this for your students.

Reflection Question

How, if at all, have you tried to be adaptable in your teaching in ways that meet your students' varied needs? What has been successful? What challenges have you faced?

NOTES

CULTURALLY RESPONSIVE & STUDENT CENTERED PEDAGOGY

Instructors should use courseware technology to deliver content and employ instructional strategies that are a) directly responsive to their students' needs, and b) reflect the wisdom and insight of minoritized students' cultures.

"How do you open science through your teaching practices, rather than making students assimilate into the culture of science that often neglects and alienates their full participation?"
-Mensah (2011)

Conceptualized by Geneva Gay (2018), culturally responsive teaching aims to "us[e] the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more salient to them. It teaches to and through the strengths of these students." Recognizing minoritized students' cultures are epistemological resources rather than threats to academic achievement. These educators use culturally responsive teaching to position students as valuable knowers rather than outsiders to educational practice and subject matter.

Although there is no one right way to enact culturally-responsive teaching, there are six core characteristics: **the pedagogy should be validating, comprehensive, multidimensional, empowering, transformative, and emancipatory.**

LISTEN & LEARN!

Dr. Geneva Gay
University of Washington, Seattle

Why is it important for faculty to employ culturally responsive teaching practices?

Watch a short video of Dr. Gay discussing the importance of culturally responsive teaching practices in higher education.

Related Readings

CULTURALLY RESPONSIVE & STUDENT CENTERED PEDAGOGY

Considerations for Practice

Lean into relationality - Engaging in culturally responsive and student-centered pedagogy, akin to differentiation, demands that you know your students. So continuously work to build trust and relationships with your students to learn their passions, curiosities, and histories.
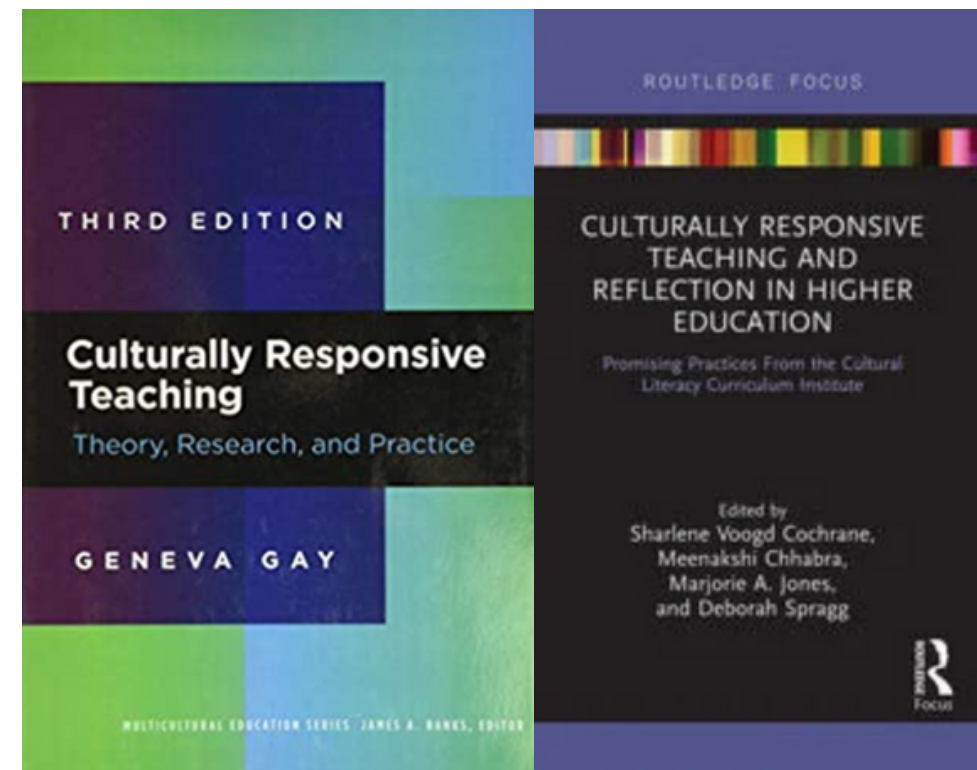
Gather frequent feedback on your pedagogy – Don't wait on midterm or end-of-semester course evaluations to get insight into how students are experiencing your course. You can create 'exit tickets' to get continuous feedback on your students' experience in the course.

Personal Reflection

Remember – who YOU are matters! So reflect on the following questions:
- Who am I as an educator? What is my vision for education?
- How, if at all, do I relate to my students? What do we have in common? How are our lived experiences different?
- What social identities do I hold, and how do they inform my pedagogy?

NOTES

DATA-DRIVEN DECISION-MAKING

Instructors should routinely, transparently, and ethically use data-gathering technology present in courseware to inform and iterate their teaching practice.

Routinely engaging in cycles of inquiry that generate data about students (e.g., demographic data), their experiences (e.g., satisfaction, feedback for the instructor), and their performance (e.g., grades, attendance) throughout the course can support instructors' ability to make informed decisions about how to adapt their teaching to better meet students' needs. Yet, many higher education faculty need help gathering and interpreting large datasets, especially quantitative ones (Bensimon et al., 2016; Felix et al., 2015). This challenge makes the act of data-driven decision-making, defined as using data to guide and support educational decisions, difficult.

The ultimate goal of data-driven decision-making is action. As one digital learning expert shared in a recent interview, "It's not just that instructors have access to the data, but they have the [skills] to apply when the data suggests that there is a problem... there's awareness, then there's action. It's important to also have action following it." This is where digital courseware comes in.

The analytics embedded in digital courseware can present data that reveal valuable insights that help uncover and interrogate disparities in course outcomes for students. Moreover, the data can often be disaggregated and presented in ways that make the information more easily understandable and actionable for faculty and available to students to enhance their own learning and metacognition.

However, data-gathering practices come with its own set of challenges. First, it is worth naming that data-driven decision-making does not always lead to reduced equity gaps. It can be used to exacerbate the very systems that harm minoritized students. Data has often been leveraged to justify the oppressive educational conditions that harmed minoritized students in higher education. For example, Bensimon & Malcom-Piqueux (2017) argued that certain faculty used student performance data to make deficit-based conclusions about students of color - attributing equity gaps to students of color not caring enough about their education. These findings demonstrate that access to data without the appropriate mechanisms to interpret it in equity-minded ways can perpetuate harm.

Another consideration is student privacy and big data. From the early days of digital technology, students have served as rich data sources for technology companies that profit from user data. Even in digital courseware, students are not often empowered to create or use student data (Prinsloo et al., 2022). It is a very fine line between data-gathering and data surveillance. In her book, Race After Technology: Abolitionist Tools for the New Jim Code, Ruha Benjamin explained, "'Data sharing,' for instance, sounds like a positive development. But access goes both ways. If someone is marked 'risky' in one arena, that stigma follows him around much more efficiently, streamlining marginalization." In the context of courseware, we must ask: Can courseware providers sell learning analytics data to third-party companies? Are students aware of what their personal data is being used for, and do they have any say over it? Are the data being used to surveil and punish students and instructors?
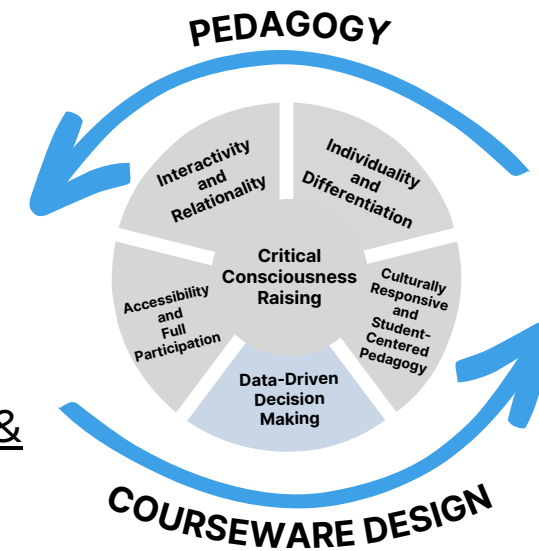
Relevant Reading

DATA-DRIVEN DECISION-MAKING

Considerations for Practice

- Be explicit and transparent with students about how you collect and use their data
- Research policies about how student data is used by your courseware provider and institution
- Know which data are (not) accessible to you; make a plan to supplement the data as you deem appropriate
- Collect qualitative and quantitative data to gather a full picture of what is happening in your course
- Disaggregate your data in a variety of ways – consider race, ethnicity, dis/ability, and gender, for example!
- Make sense of your data in equity-minded ways – remember we implicate structures and practices not our students
- *(Longer Term Goal)* Develop a community of practice around inquiry in your department or college

Reflection Question

What is your commitment to ethically and transparently engaging in data–driven decision–making? How will you refuse practices that might compromise the well–being of students of color?

NOTES

ACCESSIBILITY & FULL PARTICIPATION

Instructors should leverage courseware technology to support broad access and enhanced participation for racially minoritized students, poverty-affected students, and students with disabilities.

Educational technology, like courseware, is commonly believed to expand access to higher education for historically underrepresented groups (Joosten et al., 2020). Yet, research demonstrates that issues of accessibility are often a threat to equity in digital learning. The goal of accessibility, from our perspective, is to ensure the full participation of students who have been historically and persistently excluded from the system. According to Garces & Gordon da Cruz (2017), full participation ask[s] questions about where change is needed to support institutional conditions, cultural practices, and policies that contribute to historically marginalized people being respected, valued, and meaningfully engaged in important areas of society."

Much of the debate surrounding access and educational technology has pursued solutions to "the digital divide." For example, in a survey of 4,000 faculty members at various postsecondary institutions across the United States, Fox et al. (2020) shared that faculty consistently reported "gaps in student access" as a challenge to online teaching amidst the COVID-19 pandemic. Indeed, ensuring students' access to the proper hardware and software needed for learning is a vital equity concern.

Another way to think about accessibility is through the lens of dis/ability. Despite all its benefits, research reveals that online courses have significantly underserved students with disabilities, who "often cannot gain access to instructional materials and technology-enhanced learning tools with individualized accommodations" (Linder et al., 2015). Often, participation in online learning relies on physical abilities that are often taken for granted. For instance, an article in Inside Higher Education highlighted the challenges students with disabilities face amid online learning, such as course materials

being incompatible with screen readers, the need for accurate real-time audio captioning and interpreters, and accommodating people who must navigate the computer using a keyboard rather than a mouse. Moreover, the use of adaptive courseware can go a long way toward supporting neurodivergent learners by more easily allowing for differentiation, individualized pacing, and opportunities for formative practice. In all, proactively digital learning environments where students with disabilities have what they need to thrive is vital to enacting a commitment to accessibility.

The last consideration we raise is around affordability. One of the big draws of digital courseware is its relatively low price point relative to traditional textbooks. Indeed, the price of textbooks causes significant barriers for poverty-affected students. When discussing accessibility challenges with a digital learning expert who teaches STEMM courses at a university, they told us, "The biggest problem we're having right now is that students are choosing between buying dinner and buying a textbook." This must never be the case.

The Universal Design for Learning (UDL) represents a promising approach to instruction that centers and accommodates the needs and abilities of all learners to eradicate unnecessary obstacles in the learning process. The UDL approach includes three principles: (a) multiple means of engagement, (b) multiple means of representation, and (c) multiple means of action and expression. We believe that addressing (in)accessibility issues and employing UDL can go a long way in designing equitable online learning environments.
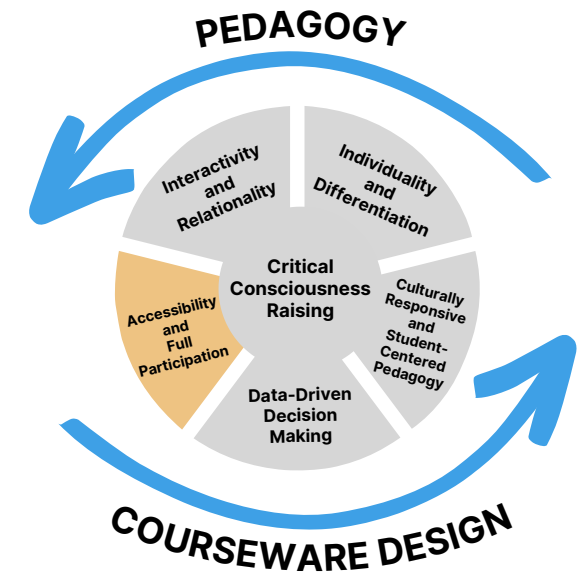
Related Readings

Open Learning: The Journal of Open, Distance and e-Learning

Volume 30, 2015 - Issue 1: Accessibility of open, distance and e-learning for students with disabilities

1,124 Views
18 CrossRef citations to date
1 Altmetric

Articles

Whose job is it? Key challenges and future directions for online accessibility in US Institutions of Higher Education

Kathryn E. Linder, Danielle L. Fontaine-Rainen & Kirsten Behling

Pages 21-34 | Published online: 04 Mar 2015

JOSEA   ISSN 2167-3454
THE JOURNAL OF SPECIAL EDUCATION APPRENTICESHIP

Vol. 7(3)   December 2018

Applying the Principles of Universal Design for Learning (UDL) in the College Classroom

Kathleen A. Boothe
Southeastern Oklahoma State University

Marla J. Lohmann
Colorado Christian University

Kimberly A. Donnell
Piedmont Public Schools

D. Dean Hall
Colorado Christian University

ACCESSIBILITY & FULL PARTICIPATION

Considerations for Practice

- Familiarize yourself with campus and community-based resources available to students so you can refer them to the appropriate support systems
- Support students' ability to understand themselves as authentic doers and burgeoning members of the discipline
- To the best of your ability, check to ensure that students have adequate access to the necessary tech equipment, reliable Wi-Fi, and course materials they need to be successful in the course

Reflection Activity

Conduct an accessibility audit of your courseware and digital learning tools you use in your course:

- Are your materials compatible with screen readers?
- Do they offer precise audio captioning, translation, and transition?
- Are they accessible with keyboards, mice, and trackpads?
- Do they offer text-to-audio capability and alt text for visuals?
- Do they require the use of particular technology? If so, do you know to support your students to get access to that technology for the use of the course?

NOTES
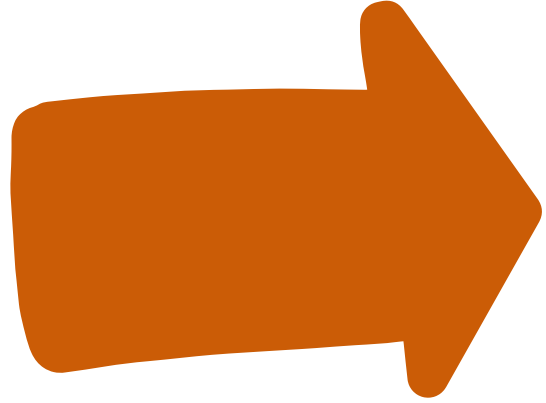
Re-Acquaint Yourself with Your Courseware Option(s)

How familiar are you with your university's courseware product(s)? Do you know the capabilities it has to support equity-minded teaching? One fairly low-stakes yet impactful next step might be spending some time doing an 'audit'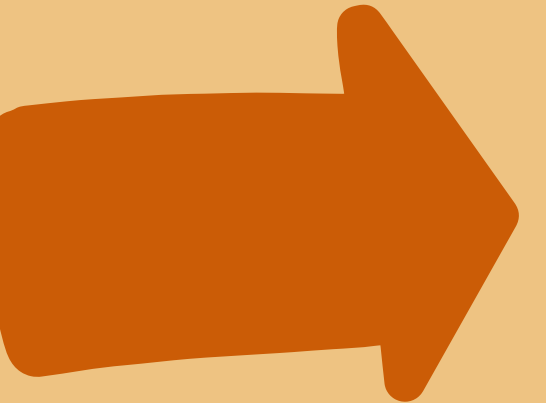 of the courseware product relative to the dimensions presented in the EFF. You can use this information to plan how you'll use the courseware In the next academic term.

Develop a Community of Practice

A large part of what can feel difficult about engaging in equity work is feeling like you have to do it alone. As we said earlier, equity work is relational work, so finding people to serve as thought partners, sounding boards, and co-conspirators is essential to your sustained engagement in this work. There are likely other instructors at your institution, maybe even in your department, who are contending with how to use the courseware to provide enriching online learning experiences for their students. Connect with them, share these resources, and learn and grow together!
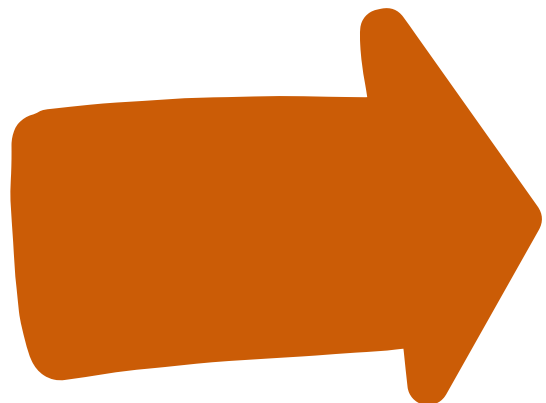
Choose One or Two Dimensions to Tackle and Tinker!

As you implement the EFF in your teaching, remember that learning takes time. Indeed, each dimension is essential, but trying to implement them simultaneously might lead to cognitive load. So treat yourself like we should treat our students – with high expectations and grace. And take it one Intentional step at a time. Given the course(s) you teach, the students you serve, and the particularities of your disciplinary and Institutional contexts, identify one or two dimensions to Implement and start planning how you will tinker with your teaching.

Closing Reflection:

What is the most meaningful way for you to start engaging the EFF in your teaching?

Key Takeaways...

"The gift and challenge of digital courseware is that there is no such thing as nondenominational courseware. It has an opinion about how learning happens, and it delivers that opinion at scale."
- Digital Learning Expert

The ubiquity of digital learning in postsecondary institutions is rife with possibilities and potential pitfalls. Digital learning can broaden access and make it more possible for historically marginalized students to engage In higher education. Yet, the racist, sexist, classist, and neoliberal dynamics we observe in synchronous, in-person university classrooms are also reproduced in students' experiences with online learning - both in content and pedagogy. **Broadening access to harmful structures is not the goal. Instead, we must fundamentally reimagine all that learning in the digital space can be and then design learning environments that operate as sites of self-determination, agency, and empowerment for students of color and poverty-affected students.**

Courseware can be an essential tool that scaffolds the cultivation of transgressive spaces for digital learning in higher education, but it cannot do everything. **Courseware is a tool, not a solution, and it is only as equity-oriented as those who design and use it.** As one chemistry professor told us**,** "Digital courseware should be the heart of the course, and the professor is the guide to help orchestrate it." We hope this toolkit provides ample opportunity to reflect on how you, as an equity-minded educator, can use digital courseware to advance racial and socioeconomic equity in your classroom and our world.

"Separating action and reflection leads to technological advances that go unquestioned or, worse yet, that are presented presumptuously and automatically as forms of progress."

(Rhoads et al., 2013, p. 100)

Instructor's Role In Choosing Courseware

We recognize that the choice of courseware your institution uses will substantially impact how easily you can employ the EFF. In addition, we know the selection of courseware is often out of your control. Suppose you are unsatisfied with how your current courseware provider addresses (or not) the dimensions of the EFF. In that case, we encourage you to tell your department leadership about your challenges and concerns with your current courseware provider's curriculum regarding racial and socioeconomic equity. We also suggest supplementing the courseware with other Open Educational Resources and case studies that support student learning and critical consciousness.

RESOURCES

Universal Design for Learning in Higher Education – University of Calgary Resource

A Series of Strategy Guides for Equity-Centered Digital Teaching & Learning. – Every Learner Everywhere
- An Equity-First Approach to Evidence-Based Teaching Practices
- An Equity-First Approach to Postsecondary Digital Learning
- Equity Principles for Teaching and Learning in Higher Education

Podcast Interview with Dr. Corbin Campbell, Author of Great College Teaching: Where It Happens ad How to Foster It Everywhere – Reinventing U (Episode 11)

National Academies Report: Rethinking Digital Citizenship: Learning About Media, Literacy, and Race In Turbulent Times – Antero Garcia, Sarah McGrew, Nicole Mirra, Brendesdha Tynes, and Joseph Kahne

Teaching to Connect: Community-Building Strategies for the Virtual Classroom – Sharla Berry

Civics of Technology Curriculum Teaches Students and Instructors to Critically Engage with Digital Content

Have trouble accessing resources?
Email us at transgressiveteaching [at] airealejoi [dot] com and we will make sure you have access to what you need!

CREATING *INCLUSIVE* ONLINE COMMUNITIES

Practices That Support and Engage Diverse Students

SHARLA E. BERRY

GREAT COLLEGE TEACHING

WHERE IT HAPPENS AND HOW TO FOSTER IT EVERYWHERE

CORBIN M. CAMPBELL

Foreword by Jonathan Gyurko

The Norton Guide to Equity-Minded Teaching

Isis Artze-Vega • Flower Darby
Bryan Dewsbury • Mays Imad

PEDAGOGY

COURSEWARE

Critical Consciousness Raising

Individuality and Differentiation

Culturally Responsive and Student-Centered Pedagogy

Data-Driven Decision Making

Accessibility and Full Participation

Interactivity and Relationality