
HOW DO THEY CONDUCT CLASS INCLUSIVELY?

Inclusive teaching means providing a welcoming and safe environment where individuals are recognized as valuable contributing members and a growth mindset is assumed and nurtured. It means constantly educating myself regarding pedagogical approaches and learning how to identify [my] own explicit and implicit biases so that I continue to grow and refine courses because every group of students [is] unique and I am growing too.

—Full professor, baccalaureate college, Biology

In the previous two chapters, we have considered how inclusive instructors design a course to meet their learning objectives in an inclusive way, as well as how they make their students feel welcome in their course, especially focusing on before the course starts and throughout the duration of the course. In this chapter, we will explore how inclusive instructors apply their course design in the classroom and maintain the momentum generated early in the course throughout the duration of the course, whether that is measured in days or months. To do this, we will start by discussing foundational aspects of inclusive classroom management and progress through how teachers engage with students in an inclusive manner, utilize specific inclusive pedagogies, and assess inclusively. We will also examine the ways in which inclusive instructors acquire student feedback about the course and use this information productively to create a more equitable and inclusive classroom environment.

They Employ Foundational Inclusive Teaching Concepts and Practices

You have designed your course, created your syllabus, even had the first few class meetings, and, so far, you feel really positive about the inclusive nature

of your course. You have spoken about the value of each person's perspective, modeled what you expect in terms of a respectful classroom environment, know or are getting to know the names of your students, and maybe have even found ways to learn a bit more about who the students in your classroom are. The foundation is set. Now you are tasked with helping students learn the content, concepts, and skills of whatever discipline you are teaching and maintain and grow that inclusive environment along the way. How do you do this when there is so much to be done to help students achieve learning goals? The good news is that you are not the first instructor to be faced with this challenge, and there are some foundational concepts and practices that inclusive instructors commonly use, whether they are teaching in person or digitally. These include things like student-centered learning, establishing a growth mindset, ensuring the course is accessible to all learners (incorporating universal design concepts), utilizing diverse resources, and, through it all, being explicit but also flexible. What you will come to see in the next few pages is that, in many cases, for inclusive instructors these concepts do not exist independently of one another but overlap and complement one another.

Inclusive teaching means making every student feel valued and respected, supporting their areas for growth, and recognizing the diverse assets they bring to the class.

—Part-time adjunct professor, associate college, Biology

They Implement Student-Centered Practices

A key tenet of successful inclusive teaching is it being student-centered, and this is seen broadly in the teaching done by inclusive instructors. In its most simple version, this means putting the students and their learning at the core of all aspects of the course. Maryellen Weimer's work on this concept has been at the forefront of this field. In her book *Learner-Centered Teaching: Five Key Changes to Practice*, Weimer (2013) contrasts teacher-centered and student-centered college teaching in terms of the role of the teacher and the student, the responsibility of learning, the balance of power in the classroom, the function of content, and the purpose and process of evaluation. In student-centered learning, the role of the teacher is more of a guide or coach than strictly a deliverer of content, and with this the power structure and responsibility of learning shifts from the instructor to the students, who have an enhanced role in determining what and how they are going to learn, but also places the onus on the students to ensure they are holding up their end of the bargain. In this context, the content and modes of evaluation serve as a means to help students learn how to learn, not just meet an end goal of what to know for a student to earn a particular grade in that course. Indeed, numerous studies

have been conducted across a variety of disciplines and have broadly found that implementing the concepts of student-centered learning in the classroom leads to increased student satisfaction, motivation, knowledge acquisition, and problem-solving skills (Baxter & Gray, 2001; Chung & Chow, 2004; Kemm & Dantas, 2007; Kozar & Marcketti, 2008; Wright, 2011).

Inclusive teaching is learner-centered teaching that gives all students a voice and makes them feel like they belong and are respected as individuals and members of groups.

—Full professor, doctorate-granting university, Journalism, Media Studies and Communication

They Espouse a Growth Mindset When Facilitating Learning Opportunities

Another foundational concept that inclusive teachers adopt is a growth mindset for themselves, and they seek to encourage their students to develop growth mindsets as well. The concept of a growth mindset related to learning states that intelligence is not fixed and can be developed. As evidence for this, it is well established that socioeconomic factors are one of the best predictors of academic achievement, and those with economic disadvantage tend to have depressed outcomes (Reardon, 2011). Meanwhile, there is also variation in academic success in groups of students with similar economic backgrounds, suggesting that this is not a singular effector. Interestingly, studies have shown that students fare better across socioeconomic backgrounds if they believe that their intellectual abilities can be developed (Mueller & Daveck, 1998; Stipek, 1996), and, moreover, that a growth mindset disproportionately benefits those from lower socioeconomic classes, thereby helping to close academic achievement gaps (Claro et al., 2016). Functionally, establishing a growth mindset for your course can mean a number of things. For one, explicitly discussing the concept and stating early in the course that this is your view on learning can be important to help students feel they can succeed in your course, regardless of their personal background. Part of this is acknowledging your own assumptions about what your students “should” know and correcting these through gathering relevant information from your students. The next step is providing foundational resources to all students as part of the course and allowing them to self-reflect on their need to utilize these resources with respect to what will be expected of them throughout the course. Additionally, embracing a growth mindset can mean providing opportunities for students to “fail forward” during their learning journey, be it through the use of ungraded assignments and activities, draft development, or low-stakes assessments. An important component of allowing for student growth is providing the students constructive feedback throughout

their learning process. This means more than the instructor just assigning a grade, but spending time to help students identify how to improve moving forward through written responses and through conversation and modeling. In sum, establishing a growth mindset classroom culture requires not only an explicit discussion of what that is and evidence of why it is important, but also both students and instructors embracing it and acting in a way that cultivates it throughout the course.

I go over what a growth mindset is and encourage students to have a growth mindset and to keep working hard.

—Assistant professor, associate college, Biology

[Do] not separat[e] . . . prerequisite material as “remedial” but integrat[e] it into the regular course content and provid[e] resources for students to study more. Allow . . . students to repeat work on assignments to demonstrate improvement and encourage a growth mindset.

—Survey respondent; rank, institution type, discipline not identified

They Are Transparent About Why They Use Particular Learning Activities

Much like in chapter 3, where incorporating the rationale for course design decisions in the syllabus was discussed, inclusive instructors also apply this concept to the course content. More and more, our students don't simply want to know “what” they are going to learn, but “why” they should be learning it. With this in mind, inclusive instructors are explicit and transparent about not only what students will be learning and how, but why they will be learning it and why they will be learning it in that manner will be beneficial. This complements the growth mindset, in that explaining why students are going to be learning in a particular way, and (when possible) providing evidence of its efficacy, can lead to students to seeing a path to their own intellectual and skill growth. With this in mind, the Transparency in Learning and Teaching (TILT) higher education program was designed, which provides a simple process for ensuring transparency in the classroom and seeks to collect data on the efficacy of these practices (Winkelmess, 2014). The core concepts of TILT related to a particular assignment are three-fold:

1. Explain the purpose of the assignment.
2. Describe the task in some detail.
3. Explain the criteria for grading.

While these concepts can be applied by instructors independently in their own courses, the TILT higher education program offers training workshops, collects survey data to inform the efficacy of this work, and establishes a

collaborative community aimed at enhancing teaching transparency. Indeed, several studies have found that student outcomes improve when learners understand why and how instructors had intentionally structured their learning experiences (Dunlosky & Metcalfe, 2009; National Education Association, 2013; Perry et al., 2007).

I follow the TILT model of assignment design for transparency.

—Associate professor, baccalaureate college, Communication

I use transparent assignment design using the TILT interventional methodologies.

—Full professor, master's college, History

They Use Broad Frameworks That Advance Learning for All Students

As mentioned in chapter 1 and subsequent chapters, one broad approach to support equitable and inclusive teaching is using the UDL framework. UDL is a “research-based set of principles to guide the design of learning environments that are accessible and effective for all” (CAST, n.d.b). In UDL, instructors are encouraged to provide multiple means of engagement, representation, and action and expression (Meyer et al., 2014). In terms of engagement, it is recommended that instructors recruit interest in the course material by helping students understand the value and relevance of their learning, optimizing student choice and autonomy and minimizing threats and distractions. Then this engagement requires options to be provided for this effort and engagement to be sustained and, ideally, self-regulated through goal-setting and reflection. Related to representation, UDL suggests instructors provide access to the information and skills to be learned through multiple modalities, including but not limited to text, auditory, and visual means, and supporting this perception of information with context. As for action and expression, UDL guides instructors to vary the ways that learners interact with their materials, communicate their learning, and scaffold and synthesize “lower-level” knowledge and skills into “higher-level” functions. Throughout these guidelines, it is easy to see characteristics that are common with the concept of the student-centered classroom by allowing room for students to make choices, self-regulate, and reflect. Additionally, the concept of accessibility is critical to the goals of UDL, and as such many of the practical means of applying UDL address this. For example, recording and sharing in-class lectures, captioning any videos that are used, ensuring those texts and other resources can be listened to audibly for the visually impaired, and allowing technological devices in the classroom all are actions that fit within the framework of UDL. While some of these actions may not be ones

with which many college instructors have experience, most institutions have accessibility services that can help support instructors in learning how to best provide these services at both an individual student and classroom-wide level. Implementing these UDL concepts in the classroom seeks to enhance equity and promote the opportunity for all students in the classroom to succeed. Research to date suggests that UDL is indeed an effective teaching methodology for improving the learning process for students (Capp, 2017); however, additional studies are needed (using pre- and postassessments) to truly assess its efficacy in enhancing student outcomes.

Inclusive teaching incorporates but is not limited to universal design for learning (UDL). It also includes culturally responsive teaching wherein the instructor works to be conscious of bias and self-critiques and reflects on biases. It includes the classroom ([physical] or online) space, the course content, and the methodology.

—Associate professor, master's college, Rhetoric and Composition

[Inclusive teaching strategies I have used include] partnering with disability/accessibility resources on campus; making sure course materials and content are accessible, diverse, and inclusive; and creating classroom environment and guidelines for classroom discourse that emphasize the value of inclusivity for our shared learning.

—Full professor, baccalaureate college, Psychology

[I use] universal design as a principle of course content to be accessible to the maximum number of students. [I] have someone check me to make sure I interact with all students equally.

—Academic professional faculty, doctorate-granting university, Biology

I create class community so that students know each other, work together, and help one another. I provide student paper notes and my own notes (in video) for every class so that students can revisit the content. I offer many analogies to real life situations. I incorporate UDL strategies, not just in my teaching, but also in many of my assessments.

—Full professor, associate college, Biology

Survey students about their prior knowledge of the subject. Facilitate icebreakers for the first 4 weeks of class to help students get to know each other and [the instructor]. Use lecture and large discussion and small or paired discussions to provide different ways for students to interact with content. Create opportunities for students to work in teams and teach and learn from each other.

—Survey respondent; rank, institution type and discipline not identified

[I practice inclusive teaching by] incorporating universal design in assignments and lectures/discussions, [and] varied examples [and by] develop[ing] [an] open and accepting environment in the classroom.

—Assistant professor, baccalaureate college, Psychology

Reflection Question

- How do you use or envision embracing any of the following approaches in your teaching: student-centered learning, growth mindset, transparency, or UDL?

They Value Diversity in Learning

In addition to the importance of providing diverse means by which students can interact with the course material, as recommended by UDL, a major theme from the respondents to our national survey of faculty about inclusive teaching was the need to highlight the value of diversity in their class's field of study. This includes encouraging diverse student voices to be presented, heard, and considered and to be explicit about the value of these varied perspectives. It also involves the selection of resources, text, and audio/visuals from and by individuals from varied racial, ethnic, and gender backgrounds (to name just a few). Further, people and characters embedded in the learning materials (e.g., books, case studies, real-life examples) should be diversely representative, while also avoiding stereotype bias. These concepts were introduced in chapter 3 around initial course design and the construction of the syllabus, and the specific strategies inclusive instructors use in their in-person and digital classrooms are detailed next.

[I] tell the students that diversity in all respects is valued in the course [and] show the students that diversity is valued by acknowledging it throughout the course. [See the following] example[s:]

- *Provide different versions of instructional materials or activities that support the variety of viewpoints (e.g., age, culture) represented by the students in a class.*
- *Ask students to help address gaps, such as students finding and sharing images to address image or representation bias in a textbook or instructional materials created by a third party.*
- *Follow universal design for learning principles to provide multiple pathways for students to review course materials, engage with one another, and show what they know.*
- *Offer alternatives for students with technology impediments (e.g., access to devices, inconsistent connectivity).*
- *Provide clear explanations and pathways for all students to access and use academic services (e.g., tutoring, writing, library), technology services (e.g., help desk), student services (e.g., health, well-being, support for students with disabilities), and administrative services (e.g., registration, financial aid).*
- *Provide opportunities for student–student interaction that support students sharing diverse experiences and perspectives.*

—Part-time lecturer, master's college, Education

[I practice inclusive teaching by] ensuring content and resources are diverse [and by p]romoting a growth/success/ and college-minded mindset. Promot[e] “equitable” practices versus “equal.”

—Part-time visiting professor, Education

[I] create slide presentations that are accessible by UDL standards and also have various representations of people. Create curricula that includes scholars of different backgrounds.

—Survey respondent; rank, institution type and discipline not identified

I use diverse examples and ensure my readings are from diverse perspectives and diverse authors.

—Survey respondent; rank, institution type and discipline not identified

[I use] diverse examples such as contributions of women and POC in science.

—Associate professor, doctorate-granting university, Biology

[I provide] explicit instruction of working in groups with diverse members and how diversity is beneficial to groups. Ensure presentation images, examples, and case studies used represent many groups of people.

—Academic professional faculty, doctorate-granting university, Biology

[I use] “[s]potlight” moments in which I highlight contributions of a wide variety of scientists, especially those from backgrounds that are currently underrepresented in the field. When giving examples of how to cite references, I chose examples that have authors from a variety of backgrounds.

—Full professor, doctorate-granting university, Biology

Curat[e] readings that represent a range of experiences and expertise and [that] come from a diverse group of authors.

—Clinical assistant professor, doctorate-granting University, Education

They Provide Structure in Their Courses

In our national study, several inclusive instructors in STEM disciplines such as the biological sciences referred to Kimberly Tanner’s 2013 article “Structure Matters” where she provides 21 teaching strategies to attend to individual students and promote engagement and equity in the classroom. These range from specific practices for managing the classroom and interaction with students to being explicit and transparent about equity, to means of collecting data and assessing the course and the students’ learning. Many of these ideas have been addressed, or will be discussed in more detail later in this chapter, and are relevant across disciplines, but as several of our survey respondents noted using this tool, and as have we personally seen in our own

teaching, it seemed useful to include here in the section about foundational concepts and practices.

Strategies that I see as specifically being more inclusive include . . . [a] variety of strategies from Kimberly Tanner's work—trying to hear every voice within a class period, using miniature white boards so that I can see every student's responses (literally), tables . . . labeled by concepts we are working on so that I'm not calling on a group by its conversationally dominant member[, and so on].

—Adjunct professor, associate college, Biology

[I use] Kimberly Tanner[']s 21 strategies.

—Lecturer, doctorate-granting university, Biology

They Are Adaptable

With the several foundational concepts, practices, and tools for inclusive teaching in the classroom we have discussed, one critical characteristic seems to permeate all of the others: adaptability. When designing a course and creating a syllabus, it is easy to envision the course exactly how you would like to see it proceed. However, it is important to appreciate that a course is not simply the content that will be covered, but it is the community of students who are going through the process of learning. And because no two students are identical, no two classes, even if covering the exact same material, should be identical. While it may be possible to learn some general information about your students during the course design process using knowledge of the student population at your particular institution, or in your particular major, relying solely on that, or worse yet, nothing related to your students at all, will do both yourself and your students a disservice. What this means is that much as the students are coming to class to learn, inclusive instructors are prepared to do the same. They learn about students, their desires and needs as related to the course, as well as what knowledge, experiences, and perspectives they can bring to the course. Then, they apply this in real time in their course. Inclusive instructors are adaptable and look at the syllabus as an important document to help support students succeed in their course but appreciate that equity is different than equality, and that since each student is unique there are times where flexibility is required for achieving the goals of an equitable and inclusive classroom.

Inclusive teaching is effective, holistic teaching. It means being aware that students come in with a variety of experiences and levels of preparation and being flexible and adaptable to those needs.

—Adjunct professor, doctorate-granting university, Engineering and Technology

Recogniz[e] and affirm different life situations that may affect a student's ability to attend class, turn in assignments on time, and attend office hours.

—Survey respondent; rank, institution type and discipline not identified

Keep my eyes on each student, one by one. Mentor students' understanding and continue [to] change teaching methods to be adapted to the student's needs. Encourage work group through projects to allow different students [to] work together.

—Part-time visiting professor, doctorate-granting university, Linguistics and Language

Reflection Question

- How can you embrace diverse perspectives, structure your course, or be adaptable as you further your inclusive teaching efforts?

They Engage With Students Inclusively

Any student who has taken enough classes, and any instructor who has taught enough classes, has faced the dreaded moment when a question is asked to a classroom full of students and the only sound in response is the shuffling of feet, papers, and backpacks. Then the instructor has to make a decision: Do I provide an answer to end the awkward silence, or do I wait? Assuming the instructor makes the latter decision, eventually a student provides their thoughts, and the instructor breathes a sigh of relief as they are able to move on. But the next time this happens, what is the outcome? Commonly, it is going to be that same student who finally provides the answer. Or, maybe in your classes you have seen the opposite occur, that whenever a question is answered there are one or two students who immediately call out or raise their hand to answer the question. This scenario may not be quite as awkward, but in the end the same issue exists in both cases. Only a minority of students in the classroom are having their thoughts and voice be heard, and compounding that issue is that all too often those students whose voices are being heard are not students from marginalized groups. So how do we overcome these challenges and truly engage with our students in the classroom in an inclusive manner? There are a number of strategies that inclusive instructors have found success with to help navigate these challenges. Here, we can talk about some of the options that exist to help you find one or two that might work best for your course.

They Use Students' Names

One of the first things that sets a strong basis for inclusive interactions with students in the classroom was discussed in chapter 4, the importance of learning the names of the students in your class (or minimally having access to those names through name tents, etc.). Depending on class size this can be more or less challenging, but using the strategies set forth in the previous chapter it should be possible and can be very useful in terms of tracking who tends to speak up and who doesn't and in leveling the power structure between the instructor and the student to allow an equitable space for discussion. To this end, inclusive instructors explicitly establish a classroom environment that not only welcomes but encourages and expects to hear the ideas and perspectives of all students, because all students have value to add to the discussions, which is critical in developing a culture in which students feel comfortable speaking up.

They Use Wait Time

Once a question has been asked to the class, another important strategy inclusive instructors use is simply avoiding giving into the pressure of the silence and increasing "wait time" after posing a question to the class. The work of Mary Budd Rowe and others in this arena over a number of years has found that teachers can wait as little as 1.5 seconds (on average) after asking a question before taking a student response, providing their own, or moving forward. Even increasing this to just 3–5 seconds showed increases in both the variety of students responding, to include those who are generally more reserved or prefer to take a few moments to process the question and information before responding, and the quality of those responses (Allen & Tanner, 2002; Rowe, 1969, 1974, 1978, 1986; Tanner, 2013).

They Call on Students Equitably

Once wait time has been increased, how do inclusive instructors actually go about hearing from the students? Well, to make sure that we are not simply hearing from that one student who couldn't take the silence in the previous scenario, it is important that there is an equitable way of determining which students get to respond to a given question. For this reason, many instructors find that hand-raising is still a worthwhile practice, even in the college classroom. This simple practice that students have likely been using throughout their entire schooling career allows the instructor more control on what voices are being heard and ensures it is from a varied set of

students. If there is only time for one student to respond to a given question, then the instructor can choose a student who hasn't been heard from recently in this scenario. Alternatively, the instructor could ask for thoughts from a particular area of the classroom that hasn't been a part of the conversation to that point. Ideally, there will be time allowed to hear from more than one student for most questions, in which case a classroom structure can be set where you expect to hear from two or three students about a given question before moving forward. In classroom settings of a smaller size, the "whip-around" approach, where every student has an opportunity to provide their thoughts on a topic, can be utilized (Tanner, 2013). Another approach, which can be especially useful in larger classrooms, is the random-call approach. With this approach, the instructor has either index cards or popsicle sticks, or something similar, with each student's name on them and simply randomly selects one (or more) when a question is asked. As this strategy can put a student "on the spot," it is best used when a clear classroom culture has been set that reduces the pressure of "being right" in one's answers and emphasizes the value of perspectives and ideas in a growth mindset.

My students come to my classroom with a staggering variety of linguistic, ethnic, and cultural backgrounds. I build in multiple stages of response to course materials so that students feel empowered to speak in class despite initial reticence due to perceived language barriers. Students respond to assigned readings and viewings in writing from home, then work in small groups (which are assembled differently each class session so that each student has the opportunity to speak with each of their classmates over the semester) to answer the same questions again in the classroom. Then, we have a large group discussion of the same questions. I've found students to be highly engaged by this process.

—Survey respondent; rank, institution type and discipline not identified

I use random call (by group) as to not put the spotlight on any one individual. When I occasionally use call and response I wait for multiple hands to go up so that I can hear from a diversity of students rather than just the one in the front who cannot wait to share their answer. I use name tents where students can write their preferred names so [that] I know what to call them and, by the end of the semester, I know everyone by name.

—Survey respondent; rank, institution type and discipline not identified

Reflection Questions

- Which of these strategies do you most commonly employ, if any? What is one you would like to try out in your classroom?

They Utilize Digital Technology to Support Inclusion

As technology advances, so too do the ways in which we as instructors can interact with our classes in real time. In an ever-changing arena, this currently includes programs and platforms like clickers, Poll Everywhere, Nearpod, Socratic, Kahoot, Mentimeter, Top Hat, and numerous others. This selection will certainly change and grow by the time you are reading this book, but the important thing is that there are options available that an instructor can examine for use in their class. Technology platforms come with numerous potential benefits related to their versatility. First, they can be particularly useful for those with auditory disabilities. Many allow students to respond anonymously and for those responses to be shared in that anonymous manner to the class. This can be a good way for an instructor to hear from all students while also removing the pressure on anyone particular student. This may, in fact, actually lead to students being willing to discuss their ideas further, once they see they are not the only student with a particular opinion (or, alternatively, advocate for a stance that was less popular in the class). Some of the technological audience response systems also allow for the instructor to collect data to be reviewed outside of class time, both on the class as a whole and individually, which may allow targeted educational interventions where appropriate (McGivern & Coxon, 2015). Importantly, if not adequately considered, the use of technology for gathering student responses can potentially also detract from a truly inclusive classroom if access to the technology that is needed to respond is not ubiquitous. To overcome this obstacle, there are options. One, the necessary technology can be provided to all students in the form of clickers. If this is not possible, or the technology being used employs the students own technology (e.g., smartphone, tablet, laptop, etc.), then it will be important that in advance of the activity the instructor anonymously collects information regarding if all students have the ability to bring that technology to the classroom, for example by using a survey like “Who’s In Class?” which is explained in more detail in chapter 6. If there are indeed students who do not have the ability to bring the necessary technology to the classroom, then the instructor can either provide “extra” devices for anyone who would like to borrow one that day (in a way that does not shame or single out students who do borrow these devices) or could determine if it is appropriate to alter the activity into a format where students pair up and then respond together on a shared device. Research has shown that the use of audience response systems is generally well-received by students as a learning tool and can be particularly beneficial in empowering otherwise “reluctant participators” to participate (Graham et al., 2007; Gubbiyappa et al., 2016; Sarvary & Gifford, 2017). Further, for instructors who are concerned that

introducing or allowing personal technological devices (e.g., cell phones) in their classroom will have negative impacts by increasing cell phone usage unrelated to the class during class time (Morrell & Joyce, 2015), at least one study has looked into this and has found that this was not the case (Moorlegghen et al., 2019). Inclusive instructors have also found ways to accomplish some of these same goals in cases where technology is unavailable or may actually decrease the inclusivity of the course. An example of this can be seen in the use of analog clickers that consist of color-coded response cards, such as those used by Dr. Edward Prather in his astronomy courses at the University of Arizona (TILT, n.d.).

[Inclusive teaching strategies I employ include] using anonymous polling to “hear” how the entire class is doing.

—Part-time lecturer, doctorate-granting university, Biology

Reflection Questions

- What benefits do you see for using digital technology-based audience response systems specifically in your class? What disadvantages? If you haven't used these before, what is one particular topic your class explores that these might be most useful for?

They Acknowledge Various Forms of Engagement

While here we are discussing ways in which students are sharing their opinions audibly or through technology, it is important to note that inclusive instructors also acknowledge that student engagement in a course does not only present itself in this manner. This may be especially relevant for digitally delivered courses. As detailed in chapter 3, inclusive instructors make sure they communicate with their class what the expectations for participation are for that particular course. In fact, this represents an opportune way to involve students in guideline creation at the beginning of the course, so they not only are aware of the expectations but have agency in their creation, and those agreed-on expectations for engagement can be incorporated into the syllabus itself. Then, following these guidelines throughout the duration of the course will maintain that inclusive and equitable environment so that all students can be successful.

Participation can take many forms (not just speaking, but also active listening, notetaking that is shared, responding to other students' work, etc.) to allow for and affirm a diversity of ways of contributing.

—Full professor, baccalaureate college, Education

Reflection Question

- What do you expect from your students in terms of participation in the classroom?

They Utilize Specific Teaching Methods That Promote Inclusivity

While there is significant evidence that shows that achievement gaps exist in higher education in both in-person and digital classrooms, there have been limited studies that explore the pedagogical approaches that reduced these gaps in a controlled manner. Here we will examine instances where there is data that supports the use of various course structures and pedagogies in reducing achievement gaps across the student population in higher education. While a number of these studies have occurred in STEM-fields, it is likely that the approaches to teaching are applicable across disciplines.

Their Courses Have High Structure

A 2014 study by Eddy and Hogan specifically disaggregated student data by racial groups and first-generation status to address the idea that the level of course structure may impact achievement across these groups. Through this disaggregation, this study extended the work of Freeman et al. in 2011, which found that increased course structure improved student performance broadly. In the 2014 study, course structure was categorized as low, moderate, or high, where low was traditional lecture, moderate allowed for 15–40% of class time devoted to student-centered activities or interaction, and high had greater than 40% of the class time for these student engagement activities (as well as increased use of graded preparatory and review assignments). Examining student performance across these three levels of structure found that increased course structure (to a moderate level of structure) enhanced exam performance of all students but disproportionately enhanced the exam performance of Black and first-generation students. Indeed, the achievement gap for Black students was reduced by 50%. Eddy and Hogan (2014) noted this finding that pedagogical decisions can influence the achievement of students' subpopulations differentially has also been seen in other studies in physics (Beichner, 2007) and psychology (Kim, 2008), emphasizing the importance of considering pedagogical methods in creating inclusive and equitable classrooms.

They Implement Active Learning Approaches

As course structure choices that increase student participation and engagement during class time led to improved performance in traditionally lower-achieving student populations, this suggests that utilizing student-centered, active learning approaches can not only broadly enhance student performance (as reviewed in Michael, 2006) but also promote a more inclusive classroom. In 2020, Theobald et al. conducted a meta-analysis of 15 studies looking at examination scores and 26 studies examining failure rates, totaling over 50,000 students, and found that active learning decreased achievement gaps in underrepresented minorities and low-income students by 33% and 45% for each respective metric. Indeed, in our own teaching, we have examined the role of serious gaming as a means of active learning in the STEM fields and found that females made a larger knowledge gain utilizing this methodology than did their male counterparts (Addy et al., 2018). Our experiences, and those of many of the respondents to our national survey of faculty on inclusive teaching, note positive experiences related to inclusivity and equity with various other active learning pedagogies, including but not limited to case studies, problem-based learning (PBL), classroom jigsaws, team-based learning (TBL), classroom debates, interactive lectures, process-oriented guided inquiry learning (POGIL), and think-pair-share activities. As can be seen in their descriptions that follow, many of these activities utilize small groups and collaborative learning, a process that has been found to be broadly effective in enhancing student achievement (Johnson et al., 2000). Further, while many of these pedagogies were developed for face-to-face courses, all of them can be applied in a synchronous online learning environment using breakout group functions available on most video messaging platforms, and most can be utilized even in asynchronous online environments.

Case study learning employs a narrative or real-life example where information and/or data is provided relevant to a problem presented to the characters in the case itself. Students are often required to understand the problem and read the case to acquire the necessary information to come to an educated conclusion or solution to the problem presented. This may occur through a series of smaller, more directed questions or a more open-ended problem-based activity. The case study method of learning seeks to employ various aspects of Bloom's taxonomy and, if designed properly, particularly target the upper levels of application, analysis, evaluation, and potentially creation. Particularly when multiple cases are used over the duration of a course, cases with a diverse set of characters and situations can enhance how students of diverse backgrounds may be able to connect to the material. The

National Center for Case Study Teaching in Science (University of Buffalo Libraries, 2020) and the SAGE Business Cases (SAGE, 2020) represent reviewed and vetted collections that can be used in higher education teaching in their respective disciplines.

PBL is a method where instead of being provided information that can then be used to solve problems, like in case studies, students are instead provided a real-world problem first, often complex and open-ended in nature, and tasked with determining what they need to learn in order to solve it. These learning activities can take place over various timelines depending on the topic, from a single class session to the entirety of the course. PBL is commonly done with students working in teams and thus can leverage the diverse assets the group members bring to the team. Even when done individually, PBL helps minimize the power difference in the classroom, as the students themselves acquire ownership in what and how they learn. Examples of how PBL has been applied in STEM fields, and opportunities for implementation, can be found in the New England Board of Higher Education Problem Based Learning Projects website (New England Board of Higher Education, 2020). Importantly, aspects of PBL can be incorporated into various teaching methods, some of which are described next.

POGIL is a variation of PBL, where the faculty provide the necessary data for students (in small groups) to discover key concepts for themselves with little direct guidance from the instructor. Related to the “process-oriented” component of POGIL, the instructor intentionally considers what process skills are important to develop in their students, and, oftentimes, the students are asked to reflect on their learning process during or after the activity itself. As the instructor interacts with students during the activity, and reviews process-based reflections after the activity, they are better able to understand their student population and adapt future learning activities appropriately. The POGIL website not only provides more information about this pedagogy, but also implementation tutorials and curricular materials for fields including psychology, computer science, and others (POGIL, 2020).

Classroom jigsaws are a cooperative learning technique that often employ aspects of PBL while also making students dependent on each other in order to succeed. This method was first developed in 1971 by Elliot Anderson as a way to combat racial bias, and the basis is that students are divided into groups and each member of that group is required to specifically learn only a percentage of the topic being explored and then come back to their group and share what they have learned. The group as a whole then is assessed either through their ability to solve a problem they were tasked with through a quiz or another means. There is only one student responsible for becoming an expert in a certain part of the content initially, yet students are assessed

on all aspects; each student in the group has an implicit value for all others. Additional information about this pedagogy and tips for implementation across disciplines is accessible at the Jigsaw Classroom (2020) website.

TBL is a specific teaching strategy that uses a three-step process to achieve learning goals, which starts with preclass preparation, in-class readiness assurance testing, and an application-based activity. The preclass preparation asks the students to use materials, commonly provided by the instructor, to explore concepts related to the topic being examined in advance of coming to class. Then, the initial portion of the class session is devoted to individual and then team-based assessment, both of which count toward the individual student's grade but are geared at assuring that the students, individually and as a team, are ready to apply their learning. The third step asks students to apply their learning, commonly in a means similar to the PBL methods described. An overview of this pedagogy as well as relevant resources can be found at the Team-Based Learning Collaborative (2020) website.

Interactive lectures are classes in which the instructor intentionally incorporates engagement opportunities for students to participate and interact directly in the material. For example, in a mathematics course, after an instructor has explained a particular analysis, time is allowed for students to work on applying that analysis in a practice problem, followed by discussion. In other disciplines, this may take different forms. One commonly noted method inclusive instructors we surveyed used was to employ "think-pair-share," where after lecture or readings students were posed with a question that they were to spend time thinking about individually, then pair up with one or more other students to brainstorm together, and then share the conclusions they have come to with the class. This is particularly effective from an inclusivity perspective, as when each student gets an opportunity to share their thoughts with other students in the class in a low-stakes situation, different ideas can be evaluated in the pairings, and then there are opportunities for those more willing to share with the larger class.

Building on some of the benefits of think-pair-share, classroom debates task students with arguing for or against controversial stances relevant to the classroom content. There are many ways in which classroom debates can be organized, whether there are several breakout groups that are all debating topics simultaneously or whether teams of students work to develop an argument together about one of several specific topics and the debate occurs with two teams debating opposing sides of the same topic in front of the class. By doing this in teams, it again allows an initial lower-stakes opportunity for all voices to be heard and for that message to be incorporated into what is presented in the argument in front of the class, without forcing any one individual student to speak in this forum.

[I use] think-pair-share and other student-centered activities interspersed with mini-lectures.

—Full professor, baccalaureate college, Physics

My courses are active, with a variety of strategies that support a diversity of learners (jigsaws, etc.) and small-group work dominating course time.

—Adjunct professor, associate college, Biology

[I use] small group projects [and] problem-based learning activities.

—Associate professor, master's college, Education

Reflection Questions

- Which of the active learning strategies that you have never implemented before would you like to incorporate into your teaching? Which class and for which topic would you implement it?

They Use Technology Inclusively

As technology advances, and its implementation in the classroom expands, instructors in higher education are looking to employ these tools in inclusive ways. To this end, a 2016 study by Meredith Warren showed the efficacy of utilizing student-centered technology in enhancing student participation and high-quality understanding in the humanities. Further, a study in utilizing technology-enabled active learning in introductory physics courses found that this learning approach appealed more to females (an underrepresented population in the field) than it did to males, suggesting the potential for its use to narrow learning gaps between genders (Ruey et al., 2011). Later in this chapter we will discuss assessing students in an inclusive way, but the use of daily in-class, online testing as a formative means of learning in large lecture classes not only yielded an overall improvement in exam performance by approximately half a letter grade above controls, but also reduced the achievement gap between social classes by 50% (Pennebaker et al., 2013). Technology use plays a particularly important role in hybrid and online courses. As mentioned previously, it has been shown that achievement gaps exist in the online course context across disciplines. A 2019 study by Gavassa et al. conducted a comparative study of a single course taught by the same instructor in three formats: low-structured face-to-face, highly structured hybrid (50% face-to-face and 50% online), and moderately structured fully online. Interestingly, in this course exam scores were lowest for all students in the low-structured face-to-face course, while Hispanic and Black students had higher scores in

the highly structured hybrid course, confirming the findings of the 2014 study by Eddy & Hogan that course structure impacts achievement gaps and suggesting that the hybrid course format may be especially beneficial to certain underrepresented groups. Other studies have identified that achievement gaps exist in massive open online course (MOOCs), specifically related to gender, geography, and social identity (Kizilcec & Halawa, 2015; Kizilcec et al., 2017). These gaps were able to be reduced by including short activities known to lessen social identity threats (e.g., writing about personal values related to their course) or those geared at increasing a sense of belonging in the course (e.g., reading testimonials from advanced learners who had similar experiences), concepts that were introduced as broadly important in chapters 1 and 2. There is mounting evidence that similar pedagogical activities that require students to reflect on their learning, especially related to their personal values, can also be effective at reducing achievement gaps in face-to-face courses (Harackiewicz et al., 2016). This study by Harackiewicz et al. (2016) examined the achievement gaps in underrepresented minority and first-generation students in STEM fields by implementing utility-value interventions where students wrote about the personal relevance of course materials and reduced the achievement gaps seen in the course by 61%. Many of the teachers responding to our national survey on inclusive teaching also mentioned utilizing reflective writing and utility value interventions as being beneficial to inclusivity in their own courses.

[I employ] interventions to increase student motivation (utility value and belonging) and allow . . . students space to describe connections meaningful to them with others.

—Associate professor, master's college, Biology

[We do] values affirmation exercises (talking about how students' values motivate their learning) [and focus on] affirming identity and belonging through exercises that place students in the role of scientists/experts.

—Associate dean, master's college, Environmental Studies and Forestry

[I start the day with] brief reflective questions to begin class, [where students] write on [their] own, then share with partner or in small group.

—Part-time lecturer, baccalaureate college, Biology

They Use Multiple Modalities to Enhance Student Learning

Regardless of discipline or course format, the core concepts of the now classical works of Benjamin Bloom's "Learning for Mastery" that achievement

gaps are diminished when varied instructional methods are utilized still rings true. Evidence indicates that the positive effects of utilizing multiple means of instruction, directed by formative assessment, not only increases achievement outcomes, but also confidence in learning, in-class engagement, and attitudes toward learning (Guskey, 2007). In our own classes, we have seen the benefit of diversifying instruction in how our students respond to the course through anecdotal and evaluative feedback. Further, instructors who responded to our national survey indicated their intentionality about utilizing assorted instructional activities in their own courses. As such, the best specific pedagogy for creating an equitable and inclusive classroom may be using a variety of pedagogies.

My courses are active, with a variety of strategies that support a diversity of learners (jigsaws, etc.) and small-group work dominating course time. Strategies that I see as specifically being more inclusive include the following:

- *Preclass structured reading guides that students fill out (terminology and conceptual)*
- *Reflection letters, three per semester, to open communication with students about goals and barriers for the course (I used to do required office hours but am an office-less adjunct now)*
- *A variety of strategies from Kimberly Tanner's work—trying to hear every voice in a class period, using miniature whiteboards so that I can see every student's response (literally), tables . . . labeled by concepts we are working on so that I'm not calling on a group by its conversationally dominant member, [etc.].*

—Adjunct professor, associate college, Biology

I employ a variety of activities (silent writing time; options to share or keep writing to one's self; choice of assignments; creative modes of expression; activities that involve movement; etc.) so that students can focus on engaging with the material and one another.

—Full professor, baccalaureate college, Education

Reflection Questions

- Take one specific topic you address in a course that you have taught and think about the method you have utilized to teach that concept. What is another instructional approach you could use to teach that same concept? Would it be possible to implement both pedagogical choices in your class, and do you think that would benefit your students?

They Conduct Inclusive Assessment

A significant component of most college courses is the assessment of student learning. Historically, student assessment in higher education has most commonly been in the form of examinations. However, whether standard examinations represent the most inclusive means of assessment, and what the format, style, and expectations of those exams should be, is an ongoing debate. So what do inclusive instructors think about assessment?

They Consider the Length and Timing of Assessments

One consideration in terms of examination format is the rate at which students need to answer questions to complete the exam. In the 1950s, Frederic Lord explored the question of whether examinations that required faster or slower answer rates were more valid in terms of assessing student learning. This study found that there was no inherent difference in their validity but with the caveat that a general conclusion could not truly be reached without considering a specific exam, its content and question number, and the amount of time to administer the exam (Lord, 1953). In 1996, a study by Parr et al. suggested that “unspeeeded” exams were a more equitable means of assessment, especially considering students with disabilities (Parr, 1996). More recently, a study by Tijmstra and Bolsinova (2018), which focused on how to analyze questions students did not answer due to time restrictions, suggested that the practical considerations of time limits on exams are necessitated by the desired outcomes of the course. If answering questions in a particular amount of time was important for the discipline, then a timed test would be most appropriate, with appropriate consideration given to the number of questions and amount of time allowed. Alternatively, if speed of response was not of particular importance, then an untimed test (or not counting any unanswered questions when assessing an exam) would be more appropriate (Tijmstra & Bolsinova, 2018). With such understanding, assessments such as take-home exams and authentic assessments that resemble the real-world application of students’ learning become not only viable but potentially preferable. And if a timed exam is to be given, it is vital that the instructor work with the accessibility services at their institution to allow for any accommodations necessary for the students in their class.

They Carefully Choose Their Question Styles

Another consideration when creating an examination is the type of questions that are offered. A 2017 study by Hubbard et al. examined how multiple true-false (MTF) versus free-response (FR) questions reveal student

understanding of concepts. Their findings suggested that MTF was best at revealing students who had mixed conceptions (some correct and some incorrect), while FR questions were particularly useful at identifying the completeness, or incompleteness, of students' understanding of a concept. In the end, the authors recommended the use of hybrid examinations that combined multiple question formats to get the broadest and most accurate assessment of student learning.

They Allow for Immediate Feedback and the Retaking of Exams

Some instructors who prioritize student mastery of the material in their courses find it beneficial to offer students multiple chances to take an exam until they earn a grade they are satisfied with. This can occur through taking the same exam over from start to finish, from redoing specific questions they had not earned full credit on the first time through, or by taking alternative examinations on the same material. Indeed, with these concepts in mind, the immediate feedback assessment technique (IF-AT) was developed. IF-AT exams (commonly multiple choice), have a student respond to a question by scratching off a selected answer, and they are immediately shown whether that answer is correct (often by revealing a star). If they did not answer correctly, then they can reevaluate their thinking and try to answer again, but with the fact that it was not their first answer still readily apparent to the instructor for grading purposes. The benefit of the IF-AT method is that students leave the exam immediately knowing the correct answer, which is known to support learning. Moreover, a study found that implementing the IF-AT method reduced student test anxiety (Dibattista & Gosse, 2006). This overarching strategy of multiple attempts on an exam or question fits nicely in the growth mindset and learner-centered approaches discussed previously.

They Include Student-Created Exam Questions

Another strategy that fits with the concept of making examinations learning tools themselves is involving students in the creation of the exam questions. In a first-year seminar that an author of this book teaches, the "final examination" for the course occurs throughout the entirety of the semester, with each class session starting with a student-created question. At the beginning of the semester, each student chooses a day they will be responsible for creating a question they believe represents one of the most critical concepts from the previous class. The student creating the question must provide it to the instructor in advance of the class and go through a collaborative revision process with the instructor to ensure the question represents what the student felt was important and is framed appropriately for other students to respond

to. Once finalized, that question is then delivered to the class. Students are then assessed on both the questions they created and the questions that they answer through the semester. We have personally seen this method enhance students' feelings of ownership in their learning, as well as their belonging to the class. Further, this method helps to diminish the classroom power structure between instructor and student. A study examined this same concept in a single session as opposed to semester-long examination format and found that student written exams improved question relevance and aided in managing exam-related stress while also being perceived as more challenging (Corrigan & Craciun, 2013).

They Leverage Technology When Testing

Finally, related to examination modes of assessment, the increasing ability for instructors to leverage the power of technology is something that inclusive instructors are considering and utilizing in their courses. An article by Williams et al. (2014) focusing on English (UK) universities notes how while pedagogical changes to support individuals with learning difficulties have seen significant changes, assessment methods have not. In their study, they look specifically at the use of untimed online assessment methods and conclude that standard examination practices unfairly disadvantage an increasing proportion of students (those with specific learning difficulties) and that online assessment methods can provide a more equitable mechanism for student assessment.

I offer untimed, online assessments that they can take as many times as they want until they get a grade they want—these are very difficult, so students do them many times. The grades students get on these assessments are not the same as their course averages, and many of my lower-achieving students do better on these because of their work ethic.

—Full professor, associate college, Biology

They Offer Alternatives to Traditional Exams

While we have discussed items to consider in making more inclusive examinations, we have not yet addressed how inclusive instructors view the place for examinations as inclusive and equitable. It is fair to say that many inclusive instructors utilize examinations in their courses; however, that is not to say that all do. And, moreover, the proportion of a course grade that is exam dependent can vary significantly. Indeed, there is some evidence that moving away from grading schemes that emphasize high-stakes exam scores over more low-stakes methods of assessment can help close achievement gaps. For example, a study found that the performance of females in STEM fields,

a group that historically shows lower outcomes, improved by utilizing mixed assessment methods, including group participation, low-stakes quizzes and assignments, and in-class activities (Cotner & Ballen, 2017). Interestingly, even the performance gap on exams in these courses decreased with the assessment diversification. These authors posited that their findings likely extend beyond females in STEM and that the microclimate of classrooms related to assessment methods can impact success rates for various under-represented groups in various fields. So what are the other types of activities that can be assessed toward a student earning a grade in your course? Almost any other activities that are done in the class, including problem sets, oral presentations, group activities, case studies, skill demonstrations, research papers, reflections, quizzes, and in-class participation, among others, are ripe for assessment and being considered as important factors in forming a final course grade for a student. What is clear is that inclusive instructors use various forms of assessment in their courses and carefully design them to be equitable. Further, with any assessment utilized, it is critical that the instructor identify if it is meant to be formative (i.e., determining how a student is learning material and supporting that learning through ongoing feedback) or summative (i.e., evaluating how much has been learned) and ensure that the timing and method of assessment is appropriate for the purpose. Inclusive instructors will often emphasize formative assessments so that their students have multiple chances of learning that are not high stakes and help students achieve the learning goals.

[I] hav[e] a clearly articulated course structure that includes daily assignments and regular low-stakes formative assessments [and use] early summative assessments worth [a] lower percetnage of the course grade than later assessments.

—Lecturer, doctoral-granting university, Biology

Utiliz[e] formative assessment and various types of summative assessments. Hav[e] transparent assignments.

—Full professor, doctorate-granting university, Journalism, Media Studies and Communication

[I place] significant emphasis on formative assessment techniques (low and hi tech) [and use] varied assessment techniques incentivizing preparation for classroom activities.

—Lecturer, doctoral-granting university, Biology

They Use Inclusive Grading Strategies

Inclusive instructors seek to utilize grading strategies that are the least biased and support the learning of diverse students. To this end, one question that an instructor should consider prior to conducting any form of assessment,

and share with their students, is whether their grading strategy is based on student performance relative to others in the class (norm referenced) or purely on their individual achievement (mastery based or criterion referenced) (Bond, 1996; Huitt, 1996). With norm-referenced grading, an individual grade is compared to the group at large, most commonly with the anticipation of a bell curve, where most students earn an intermediate grade with smaller populations earning higher and lower grades. In criterion-referenced grading, each student is assessed independently of their ability to master the material and skills on a specific predetermined set of criteria. In this method, it is formally possible that all students earn A's or F's or anywhere in between. A study by Smeding et al. (2013) examining Psychology undergraduates at a French institution found that the achievement gap due to SES was decreased by employing mastery-based assessment. While this study provides strong reasoning to consider utilizing criterion-referenced grading, either strategy may be appropriate depending on the course and desired outcomes, and, indeed, it is possible to combine the approaches in a process that clusters or groups student performance even before assigning grades.

The goal is success for all students, not ranking students on a normal distribution.

—Lecturer, doctoral-granting university, Psychology

Inclusive teaching is creating a welcoming classroom environment for ALL students, having high expectation with support for students who need it to be successful, and differentiating content presentation, learning activities . . . that accommodate each student's learning style, and options for demonstrating mastery.

—Adjunct instructor, master's college, Psychology

I employ student self-assessment and cocreated grading criteria so that students with different needs, styles, preferences, strengths, and challenges can engage in a variety of ways and demonstrate their learning in different ways.

—Full Professor, baccalaureate college, Education

When it comes to the actual grading of assignments and examinations, where possible it is inclusive to use the blinded method, where the assessor does not know whose work they are assessing. This helps to reduce any potential conscious or unconscious biases that might exist, either based on the student's past work or any other factors.

[I] use blind grading practices and inform students of such.

—Full professor, undergraduate college, Biology

In the discussions in this section, we considered assessment in the context of grades. We would be remiss to not note that some inclusive instructors are minimizing grading in their courses by utilizing self- or peer-review processes, authentic assessments, or instituting “grade-free zones” in their courses, or even moving fully to “ungrading.” Ungrading does not necessarily mean that instructors do not review and provide feedback on student work through the course; in fact, it generally focuses on these aspects but removes the attaching of grades to that work, as it looks at the assignments as a means for learning not assessment. At institutions that require course grades, some inclusive instructors have turned that process over to the students themselves, asking students to self-reflect, determine, and justify their own course grade. In these cases, the power dynamic between instructor and student is clearly diminished, which can positively influence the classroom community and learning throughout the duration of the course. There are also a number of institutions that have moved away from grading entirely, currently including schools like Hampshire College, Antioch University, and others. Additionally, there are institutions that maintain course grades but in a deemphasized manner supplemented by narrative evaluations, currently including Reed College and Sarah Lawrence College. A number of these institutions specifically state a focus on student growth and constructive learning as a reason for their nontraditional assessment models.

Reflection Questions

- Think about one means of assessment you implemented in your last course. Hypothetically reformat that assessment or its delivery in an alternative way based on the information in this section. What advantages might there be to this new version? What challenges do you foresee? Do the advantages outweigh the challenges?

They Acquire Student Feedback Throughout the Semester

Returning to the foundational concept of inclusive teaching being student centered, it is critical to acquire student feedback on their experiences in the course and use that feedback productively. This gives all students a voice. Most institutions of higher education have a system for end-of-course student evaluations, which are commonly standardized across the institution. When appropriately reviewed and considered by the instructor, these evaluations

can indeed be useful in revising, updating, and improving a course for the next time it is taught. However, inclusive instructors suggest relying solely on end-of-course evaluations has two major detractors: first, that it does not allow the instructor to be responsive in real time, and second, that the next time the course is taught, it will not be with the same student community, and as such those evaluations may not be as relevant. Further, although not called out explicitly in the study, evaluations are vulnerable to biases. In chapter 2 it was noted how even as early as during the creation of the syllabus an instructor can embed opportunities for student feedback throughout the course, and in so doing make students aware that they have agency in the course structure and design from the beginning. Indeed, a major theme of instructors responding to our national survey on inclusive teaching was the need for, and use of, early, in-course student evaluations.

[I] conduct an observation/midsemester feedback session to get feedback from students about how the class is helping them learn and what can be done to improve it.

—Part-time instructional consultant, master's college, English

[I] seek midquarter course feedback, including about ways to make the classroom environment best suited to student learning.

—Teaching post-doctoral fellow, doctorate-granting university, Biology

[I] ask students about their experiences with the course material. I check in with students regularly to get feedback on how to improve teaching.

—Assistant professor, baccalaureate college, Nursing

They Acquire Feedback During the Course

Indeed, articles in the literature also support this idea of collecting student feedback during the course itself, be it regularly throughout the semester, at the end of learning units, or at the midsemester mark (Golding & Adam, 2016; Griffin & Cook, 2009; Santhanam & Hicks, 2004). Moreover, the literature speaks to using this feedback not simply to evaluate one's teaching, but rather to improve it. This again harkens back to a key tenet of inclusive teaching in the classroom: adaptability. Inclusive teachers, like their students, employ a growth mindset and take a reflective approach to how they view their evaluations and then can use that data as formative feedback to be employed in near real time in the same course the feedback came from (Golding & Adam, 2016). Alternatively, if instructors hold negative perceptions of evaluations, and believe that student evaluations are flawed and poor indications of teaching quality, they are unlikely to be able to utilize

the feedback to improve (Aleamoni, 1999; Smith, 2008). If students perceive that there are barriers to their success in a course, then it behooves the instructor who seeks to be inclusive to respond to this, either by adapting their classroom or discussing with the class why certain instructional methodologies are being utilized. Even if alterations cannot be made, this allows for students to feel heard, gain ownership in the course, and understand why certain pedagogical choices have been made.

I solicit anonymous midterm feedback and make changes to the course based on those suggestions (or explain why I can't make a requested change).

—Associate professor, baccalaureate college, Communications

Students are engaged around the course outcomes and feedback is welcomed. Students feel a sense of ownership of the learning within the inclusive teaching environment.

—Director of assessment, doctorate-granting university, Education

Reflection Questions

- How often do you receive formal (anonymous or otherwise) feedback from your students about the course? When do you receive such feedback? Would it be beneficial to receive more feedback from the students or at a different time?

They Use Varying Methods for Acquiring Feedback

So how do inclusive instructors acquire student feedback during their course term? The short answer is that there are multiple options, and inclusive instructors can and do utilize the methods that are most appropriate for their course and student population. One method commonly applied is the survey method. This can be done either in person or online (potentially through course management software) and can be implemented anonymously or with the option for students to identify themselves if desired. In general, it is good practice to collect feedback anonymously, as they may not feel comfortable being honest with feedback that may be seen as critical when they are still in the ongoing course. Another means of acquiring student feedback is through reflective writing assignments that ask the students not only to reflect on what they learned, but also how they experienced their learning. Depending on course structure, these assignments may be graded, or perhaps low stakes to ungraded. Some students may feel more able to clearly articulate their perspectives through talking about them rather than writing or completing a

survey. Indeed, we saw several respondents to our national survey on inclusive teaching mention that they make themselves available for these one-on-one conversations outside of class time and are explicit about office hours not being only for course content discussions but also for student feedback about the learning process, including both what is working for them and (especially) what is not. While some students may be confident enough to have these one-on-one conversations, that may not be the case for all students. In cases where in-person discussions are considered valuable but there is concern that all voices may not be heard equally, the use of student representatives who converse with subsets of students across the classroom community can be useful. When this approach is implemented, instructors have often had the “representative” positions be voluntary and ideally rotate to include other students throughout the course timeline. One thing that inclusive instructors do really well is appreciate that they are not alone in the endeavor of trying to provide the best learning environment for their students. With that in mind, collaborating with other colleagues or instructional consultants at their institution’s center for teaching and learning (if present), can be a useful way to acquire anonymous feedback from students. The classic saying “you scratch my back and I will scratch yours” is quite applicable here, and finding a colleague who can come to your class to collect feedback in turn for you doing the same in their class can be very useful indeed. In the end, it is important to realize that collecting feedback from students about their learning is in many ways similar to supporting their learning in the first place, and offering and encouraging various means by which students can provide feedback to you will likely lead to the most robust and useful responses.

I have a clear teaching philosophy and approach to inclusion and accessibility stated in my syllabus and I discuss this with students on the first day. I make myself available after class and during office hours with the explicit invitation of feedback about the learning environment and issues of access and accommodation.

—Assistant professor, master’s college, Anthropology

[I provide] multiple avenues for feedback (i.e., formal/informal/anonymous or in person).

—Associate dean, master’s college, Environmental Studies and Forestry

Inclusive teaching means using classroom pedagogical strategies that aim to help all students feel empowered to learn, valued in the classroom, and expect to be capable of success. When possible it’s good for these strategies to be research validated, though many are based also on some mix of instructor experience, student feedback, and common sense.

—Full professor, baccalaureate college, Physics

Reflection Question

- What is a method of gathering student feedback you are not currently using that you would want to apply in your course?

Key Points

- Inclusive instructors are student centered, embrace a growth mindset, ensure transparency in their assignments, and use principles of course design that can support learning, value diversity, and exhibit adaptability.
- In the teaching strategies that they implement in the classroom, inclusive instructors engage students inclusively in their learning, strive to use assessment measures that are fair and unbiased, and continually seek feedback from their students to modify their approaches.

In chapters 3–5 we have explored the process of designing and implementing an inclusive and equitable course, from constructing a syllabus to creating a welcoming environment during the first few course meetings, to, here in chapter 5, utilizing recommended practices for engaging with students in the classroom, instructional activities, assessment, and feedback acquisition throughout the duration of the course. We used our own experiences, published research, and the responses to our national survey of higher education instructors on inclusive teaching to inform these conversations. In the Epilogue, we will explore how we in the field of higher education can go from inclusive courses to more wide-spanning inclusive environments at a departmental, school or divisional, and institutional level.