

Overview of *Quality* TEACHING¹

by Emily O. Gravett (CFI and Philosophy & Religion) and Andreas Broscheid (CFI and Political Science)

The purpose of this document is to summarize the main principles of quality teaching that form the basis of teaching programs offered by the CFI and the excellent practices of instructors across JMU. We view these principles as *good practice*, but they are not necessarily the *single best* practices, as we recognize that good teaching can come in many forms and there is no one-size-fits-all approach that we would ever prescribe. Nevertheless, they are important—did we say “good”?— principles, and [successful university teachers tend to follow them](#), explicitly or intuitively. As instructors continue to experiment and as the research on teaching is continually updated, we view this document as dynamic, and we plan to continually update it.

By summarizing these principles, we work from the assumption that [good teaching is something that instructors, even college professors, can learn](#). Being a good teacher is not an innate quality; it is a skill and, like any skill, it is something that can be improved with increased knowledge and practice. The principles presented here can help academics, most of whom have been primarily trained as content experts, be or become good teachers. (Obviously, you all should also participate in many of the CFI’s wonderful workshops, learning communities, and institutes, as long as you’re not super annoying, in which case you are welcome to spend your time on, oh we don’t know, curriculum committees, the IRB, or some such. Just kidding, of course.)

The principles summarized here also imply that there are certain underlying approaches and practices that apply, or are transferable, to a range of educational contexts: online, in the classroom, in the field, or some combination (hybrid, hyflex, etc.); in synchronous and asynchronous classes; with graduate and undergraduate students; in large classes and small; with students of different backgrounds; across disciplines; across instructor personalities; and so on. This does not mean that we’re proposing cookie-cutter models that can be imposed willy nilly (or, if you prefer, Milli Vanilli). Instead, we are offering principles, approaches, and practices that are adaptable and expandable to all kinds of educational contexts. Instructors are the ones who have to do the real work of adapting and expanding, observing closely what works and what doesn’t and then [revising their teaching accordingly](#). (The sections below on situational factors, the scholarly approach to teaching, and on reflection, among others, provide suggestions for how the process of adaptation and revision can work.)

We also want to acknowledge that good teaching is difficult and labor-intensive. It requires thoughtful preparation and careful implementation: the identification of important learning objectives; the development of assignments and activities that provide feedback to students, help them develop the knowledge and skills that they need, and at the end evaluate achievements fairly and authentically; the constant iteration of course materials that are inclusive; and more. It also requires reflection and revision during and after the teaching actually happens, as we observe and collect data about the success (or not) of our teaching. Some classes are more labor intensive: online classes, if taught well, can require a lot from instructors, as can classes taught for the first time. In view of this, it is important for faculty to be realistic: They have to recognize [how much \(and how little\) time they have available for teaching](#) and [plan their work accordingly](#).

¹ We went back and forth on the title. We did not want to suggest that we were presenting *best* practices, since there are so many good practices. So we came up with *quality* in the title, also having [this image](#) in mind.

This document is protected by a [Creative Commons Attribution Share-Alike \(CC BY-SA 4.0\)](#) license.

Finally, the principles presented here are not easily learned or attempted in solitude. We encourage instructors to make use of the range of educational development programs offered at JMU by CFI and other units as well as off-site by professional associations and other organizations. Similarly, working with good mentors is important as well. These can be colleagues in the academic unit as well as CFI or Libraries personnel who can provide help through consultations. In addition, peers who collaborate on particular classes or the development of particular teaching methods, such as Problem-Based or Team-Based Learning, are essential to successful teaching and learning as well. As we note below, learning is a social endeavor, and that's not only true for students but also for instructors.

Why (Higher) Education?

Institutions of higher education have served, and still do serve, a range of purposes: social selection and elite formation, academic and scientific knowledge creation, specialized skill acquisition, broad-based liberal education, upward mobility, social inclusion, leadership development, social order, democracy, economic development, community change, and more (see, for example, [Bryer 2014](#), [Davidson 2017](#), [Stevens et al. 2008](#)). (We do not believe that all of these purposes are legitimate; social selection and elite formation, for example, has played a central role in academia, but we believe that it is socially harmful and unjust and should be a thing of the past.) This institutional diversity is reflected in a diversity of faculty roles, values, and cultures: researcher, expert, knowledge provider, leader, colleague, facilitator, mentor, co-learner, caregiver, to name a few ([Austin 1990](#), [Bergquist and Pawlak 2008](#), [Nixon 1996](#)). The particular blend of institutional purposes and individual identities depends on a number of factors, such as institutional mission and faculty status (full-time, part-time, tenure-track/tenured, and so on), interests, and personalities—as well as their interaction through individual faculty practice, faculty evaluation processes in units and colleges, and faculty participation in institutional decision-making processes. This leads to inequalities: Faculty who emphasize research and de-emphasize teaching tend to be more prestigious and successful; faculty who emphasize teaching and who base their teaching on an ethic of caring ([Noddings 1984](#); [Dowie-Chin and Schroeder 2020](#); [Bali 2020](#))—women are overrepresented in this group—tend to be less well-compensated, less likely to be in stable positions, and less highly regarded by their peers.

A faculty member's particular approach to teaching is usually a combination of the instructor's identity (the teaching philosophy), disciplinary background and habits, as well as the institutional mission. We recommend that instructors are aware of these factors, as they influence what they (and their institution) will consider successful teaching. For example, [James Madison University's current strategic plan](#) emphasizes engagement as well as academic excellence and expertise, but also community, diversity, and integrity, and a commitment to a liberal arts education in addition to specialized majors. This gives faculty leeway to pursue a range of directions in their teaching but prioritizes educational experiences that involve extensive interaction between instructors and students, connecting different disciplines, important applied questions, and engagement with “real-life” communities.

Situational Factors

Each learning environment is different and it is important to consider the particular context in which you will be teaching and your students will be learning. [Fink \(2013\)](#) uses the term “situational factors” to summarize the context that is relevant for learning. Such factors include the characteristics of the learners (e.g., age of the students, prior educational background, gender distribution and other demographic makeup of the student body, stage of student psychological development), characteristics of the teacher (e.g., experience of the instructor as a college teacher, as an online teacher, educational background of the instructor, gender, race, class, sexual identity of instructor, and more), nature of the

subject (e.g., disciplinary approaches to knowledge, central skills and practices, and [signature pedagogies](#)), and institutional parameters (e.g., class size, teaching load, approaches to evaluating teaching, departmental culture, externally imposed learning outcomes, textbooks, and exams). Your particular context will present distinct challenges as well as opportunities that need to be taken into account when designing a course. For example, a discipline's approach to knowledge may not be intuitive for students and has to be explicitly explained; teaching methods that go against student expectations may lead to push-back on course evaluations; the best-designed course can fail if it leads to overwork and faculty burnout.

Backward Design and Constructive Alignment

The main idea behind constructive alignment ([Biggs 2003](#)) is that the central elements of an educational experience—learning outcomes and objectives, assessments, and learning activities—are aligned. If students complain that a test was nothing like what they learned in class, this can be an indicator that the assessment (i.e., the test) and the learning activities were about different things: that is, they were not aligned. If developing skills in critical thinking, for example, is important to you, then you will want to provide students opportunities to practice thinking critically and to demonstrate, through projects, papers, or tests, their ability to do so.

Backwards, instructional design ([Wiggins and McTighe 2005](#); [Dick et al. 2005](#)) refers to a systematic design strategy for assuring constructive alignment by focusing on learning outcomes and then orienting all other elements of a learning experience towards those outcomes: Assessments are designed that demonstrate authentically (that is, in ways that are modeled after actual use of learning by professionals) the degree to which students have attained the outcomes; learning activities are created that help students succeed in the assessments; and course materials are chosen that enable students to participate in those learning activities. Thus, a helpful place to begin for any course is to consider what knowledge, skills, and/or values you'd like students to possess or master by the end of your course. What, in five years, would you be embarrassed if your students didn't take away from their experience with you? With this end in mind (i.e., your outcomes or objectives), you can design your course "backward," planning what kinds of exams, papers, projects, and other outputs will help your students demonstrate this learning, and deciding on which class activities will help students practice, demonstrate, and master those goals by the end.

Counterpoint: Liberating Pedagogy

Constructive alignment is like a hiking map. Learners are like the hikers, and the outcomes, assessments, and learning activities guide the learners toward the final destination of their hike—the learning. In that conception, learning is represented by a priori defined outcomes that are within reach for the learners. In many disciplines such a conception is helpful, particularly at the undergraduate level, where students have to learn well-defined basic facts, concepts, analytical skills, technical bases, and the like. However, at advanced levels of study and in some disciplines, such a teleological definition of learning can be problematic. Is it possible to define precise learning outcomes in a class that centers on an open-ended discussion of literary or historical texts? If it is possible, would it suppress the free and liberating exploration of students' ideas and interactions? In an advanced graduate seminar, can an instructor prescribe the learning outcomes of students' research projects? In such classes, the educational experience does not resemble mountaineering as much as an expedition into unknown territory where we risk discomfort to make new discoveries ([Morris 2018](#)). Constructive alignment is a central skill in the repertoire of an instructor, to assure that we can be transparent with students. But at some point, these clear structures may have to be abandoned to liberate students from their intellectual fetters. As [bell hooks \(1994, 92\)](#) notes, "There are times when personal experience keeps us from reaching the

mountain top and so we let it go because the weight of it is too heavy. And sometimes the mountain top is difficult to reach with all our resources, factual and confessional, so we are just there, collectively grasping, feeling the limitations of knowledge, longing together, yearning for a way to reach that highest point. Even this yearning is a way to know.”

From Big, Beautiful Questions to Learning Objectives

Academic research and learning generally revolves about important questions. Good research addresses, and is derived from, captivating questions. Think of why you pursued an advanced degree in the first place; were you not piqued by questions that the discipline could help you pursue, if not answer? The same is true with good teaching: It starts with important questions or problems that are “intriguing, beautiful, or important” (Bain 2004; see also Berger 2014), thus inspiring and motivating students—and ourselves. Learning goals and objectives follow from those questions.

The best known taxonomy of learning objectives is [Bloom’s cognitive-domain taxonomy](#). Bloom and those who later revised this taxonomy help us to understand that there are different levels of learning, beginning with a base of foundational knowledge (that is, the essential facts, figures, concepts, statistics, and such in your course or discipline) and working our way up to evaluation and even creation. It is important to note, though, that what we know as “Bloom’s taxonomy” is only part of a work that also focused on affective aspects of learning, such as the extent to which students developed an interest in the learning content and even made it part of their lives. There has been an increasing recognition in higher education of the importance and influence of affect/emotion in learning (e.g., [Cavanagh 2016](#)).

In the higher education context, Fink’s categorization of learning goals has become quite popular, as it combines aspects of Bloom’s cognitive taxonomy with affective, social, and metacognitive learning outcomes. Fink refers to “significant learning goals” to emphasize that what students learn has to be viewed as important by them. (The use of the term “significant” in this context is unrelated to its uses in classical inferential statistics. Sigh.) Fink suggests integrating the following categories of learning goals:

- Foundational knowledge: facts and concepts that students have to remember and understand in order to achieve other learning goals
- Application, including technical skills development, critical, creative, and practical thinking as well as project management skills
- Integration of knowledge by connecting ideas, people, and realms of life
- Learning about others and oneself (the human dimension of learning)
- Caring, that is the development of interests, values, and feelings
- Learning how to learn

Assessment

For many faculty, “assessment” has become a four-letter word. When it refers to institutional assessments, it represents bureaucratic requirements that faculty would love to ignore (and may only do to check a box). When it refers to exams and other graded class assignments, assessment raises the ugly specter of grading—the activity instructors like least. But properly designed assessments can become a source of student learning and faculty insight. Maybe most importantly, assessments should be properly aligned with the course’s learning objectives (see above as well as [Palmer et al.’s syllabus rubric](#) for gauging this alignment). They should also be realistic (or authentic) demonstrations or examples of the knowledge, skills, and behaviors that [so-called “wicked” students](#) could be expected to develop for the messy, complex “real world.” Many assessments, then, should be *formative* in the sense that they provide students with actionable feedback that helps them figure out where they are and improve their

learning. Some assessments have to be summative, that is, they contribute to the grade that at the end of the semester summarizes a student's learning. Ideally, summative assessments are spread out over the semester and capture a range of different aspects of student learning, in different formats, to make sure student learning is properly captured and the final grade is not heavily dependent on one or two tasks and is not distorted by factors that may have influenced student performance in an unrepresentative manner (e.g., illnesses, personal crises, snowstorms, etc.). Formative assessments should cover feedback from the instructor, but also feedback from students themselves, in the form of peer and self evaluations, or even members of the community.

Transparency

Evidence suggests that all students, but especially those from underserved populations, benefit when instructors are explicit or [“transparent”](#) in their assignments ([Winkelmes et al. 2016](#)). Being transparent avoids disadvantaging those students who are not familiar with the [“hidden curriculum”](#) ([book here](#)) of college. Transparency in an assignment occurs at three key points: purpose, task, and criteria. The *purpose* is the “why” of the assignment. Why are you asking students to do this work? How does it connect to the course content, the outcomes, and to their lives? What knowledge or skills or values will they be practicing or gaining? The *task* has to do with what students have to do to successfully complete this assignment. What are the steps they have to take? What should they avoid? If the assignment is high stakes (i.e., worth a large portion of the course grade and stringently assessed), this might be the place to create and clarify a sequencing or “scaffolding” of the assignment. Finally, *criteria* is where we explicate what excellence or success looks like. A checklist or rubric (see, for instance, [Stevens & Levi 2012](#) on how to create these) can be useful, especially given in advance, so that success is not a mystery. If you are curious to gauge how transparent your assignment is, ask students or check it against [Palmer et al.'s 2018](#) assignment description rubric.

In the context of transparency, it is worth adding a few words about the idea of a hidden curriculum. Such a curriculum [consists of the \(usually\) unstated assumptions, definitions, values, behaviors, and demands that affect whether and which students will succeed](#). What does learning mean—rote memorization, application of concepts, creation of solutions? What do we mean when we ask students to read something—should they identify and understand main concepts, or will they be tested on minute details that they need to memorize? Are students allowed, and even expected, to question the content that instructors provide? Are they expected to seek academic help when they need it? (Do they know how to do so?) What does it mean to plagiarize or cheat? How should students address their professors? Even the make-up of academic faculty can create a hidden curriculum: Are professors all white and male? As instructors work towards making their assignments as well as the overall learning experience transparent to students, they may also want to consider what “their” hidden curriculum is and [either “unhide” it or replace it by an explicit curriculum](#) that reflects their values and teaching goals—for example, by changing the class materials (if learning is not rote memorization, then exams should not be based on them) or the institutional make-up (if not all computer scientists are white men, then this has to be reflected in departmental hiring)

Student Motivation

Motivation, in any class, can be a real challenge—but it is central to successful learning. It may be surprising to know that we can do a great deal to influence students’ motivation. One of the most common motivational (and, sadly, also de-motivational) tools are grades, as rewards and punishment for good or bad performance. Such types of motivation are classified as “extrinsic,” as they are not derived from students’ own excitement or interest in the course material. External motivation can be ineffective—students who do not perform well may be discouraged from trying again. Generally more

effective, but also more difficult to generate, is internal or “intrinsic” motivation, based on the perceived value of the course content. A focus on beautiful questions—at all levels of a course, from its overall description to any given lesson plan—and significant learning goals can go a long way in fostering student motivation.

But there is more to motivation than exciting questions and an inspiring instructor. While there are dozens of theories of motivation out there, we like the one adopted by Kenn Barron, Professor of Psychology at JMU, and his [Motivation Research Institute](#). According to this theory, motivation can be expressed as the [product of expectancy of success and valuation of the task, minus cost](#). If expectancy is high, students feel that they can succeed in the task set for them by the instructor; if value is high, students care about their work and its outcome—it has value for them. If either is low—that is, if students either believe that they cannot succeed or that the task is not valuable for them—then students will not be motivated. If students are persuaded that they can succeed and that the result is important for them, then they are motivated, at least as long the costs of learning (e.g., time, effort, acquisition of preparatory skills, opportunity costs due to need for employment, time spent on medical treatments, lack of sleep, etc.) are not too high. This approach provides helpful suggestions for faculty: If we want students to succeed, we have to inspire students to value the course material that they need to learn, and the skills that they need to acquire. Instructors also have to instill confidence of success in their students. And they have to be aware of the costs involved and work towards reducing those costs to the extent possible.

Learner Variability and Universal Design

We tend to create and teach our classes for some average student that we imagine. Yet no average student may even exist; as Todd Rose says (2015), [variability is the rule](#). We can plan for diversity, in any classroom, in advance, without waiting for any individual student to come forward with some kind of “special need,” for instance, a disability that precipitates various “accommodations” that the Office of Disability Services says may help to mitigate it. [The principles of universal design](#) (see also [Burgstahler 2015](#)) originally guided product and architectural design so that they were [“usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”](#) These principles are helpful to keep in mind, regardless of instructional context: 1) equitable use, 2) flexibility in use, 3) simple and intuitive, 4) perceptible information, 5) tolerance for error, 6) low physical effort, 7) size and space for approach, 8) a community of learners, 9) instructional climate. The spirit of universal design—a process that recognizes diversity as a default; that checks with users; that is flexible, iterative, and adaptive; that continues to interrogate the status quo that so often privileges those not on the periphery—has also been applied to education, including how students learn, and demonstrate their learning.

[CAST \(formerly the Center for Applied Special Technology, now known simply by the acronym\) offers guidelines](#) relative to UDL to ensure that we are offering students multiple means of engagement (which focus on the “why” of learning), multiple means of representation (the “what” of learning), and multiple means of action & expression (the “how” of learning). The idea here is to proliferate options and to minimize barriers to learning, so that we are not presuming a one-size fits-all approach to education. This approach becomes all the more important in times of crisis and uncertainty; the more nimble and flexible we can be in our teaching, the more easily we (and our students) will be able to adapt and respond to changing circumstances. Teaching online (whether by design or the sudden result of a global pandemic), in particular, offers great opportunities, as well as challenges, for creating access. For instance, we may choose to incorporate more videos into our instruction than before, but then we need to take care that those videos are closed captioned and transcribed for the benefit of everyone in our

class if we do. Although often associated with increasing access and removing barriers for people with disabilities, UD(L) works as a broader diversity framework to education too, as authors such as [Tobin and Behling \(2018\)](#) argue: as they say in the title of their recent book, “reach everyone, teach everyone.”

From Diversity and Inclusion to Decolonizing the Academy

Institutions of higher education around the world follow models of education that can be traced back to Europe—the continental model of the research university and the English model of the College. Partly because of scientific and economic successes, and partly because of Western colonialism and imperialism, this Euro-American model has spread around the world. The model has become normalized in a way that, to those inside it, its institutional norms, roles, and habits, its definitions and assumptions, and its physical structures have become almost natural, not socially created contexts that are subject to change or critique. Yet it is important to realize that the characteristics of this model are contingent to particular time periods and particular cultural assumptions. They are not “naturally” given ways of learning, as attested by the diversity of ways of learning across times and cultures. For example, [Mercurief and Roderick \(2013\)](#) show how (some, as there is wide diversity) Alaska Native approaches to teaching and learning differ from Euro-American norms, for example in their emphasis on silence and silent observation, and non-verbal learning. [Chávez and Longerbeam \(2016\)](#) point out that the cultural assumptions, norms, values, beliefs, and artifacts of higher education pose a hurdle to academic success for students not raised in that cultural context.

At a minimum, therefore, inclusive teaching has to make academic learning accessible to students of all backgrounds, by providing transparency of norms, practices, and expectations. Universal Design (for learning) (UD(L)), Transparency in Learning and Teaching (TILT), and “un-hiding” the hidden curriculum, all discussed in this document, are part of inclusive learning, as are other practices that help students understand and access information about what classes are meant to accomplish, how this is done, and how the outcomes are assessed. Inclusive teaching, it turns out, is not special teaching, or an add-on, but simply good teaching.

Inclusive teaching that ‘merely’ removes hurdles to student success through transparent and well-designed teaching can easily turn into the assimilation of diverse student populations (and instructors) into a seemingly identity-neutral curriculum. Yet such curricula are not, in fact, neutral, but rather constitute hidden representations of a dominant identity. This can be most easily seen in the social sciences or the humanities, where the ‘standard’ curriculum or “canon” historically has reflected white, often male, subjects and authors. For example, the mainstream study of American politics focuses on the institutions of government, such as Congress. While such a focus of institutional decision-making is on its face race and gender neutral, the fact that the overwhelming majority of members of Congress have been white men turns such a focus into a de facto study of white masculinity (of a rather peculiar sort). [As Tatum notes](#), for the dominant identity group, its own perspective becomes invisible and is simply perceived as a neutral “normal,” and non-dominant perspectives are considered defective or less valuable.

To counter such a one-sided focus on dominant identities, instructors frequently include course units on issues and perspectives related to minoritized social identities. According to [Banks \(1999\)](#), this type of inclusion can be part of the two basic levels of multicultural curriculum change: the addition of multicultural contributions to the course topic and the inclusion of “content, concepts, themes, and perspectives” to the curriculum. Banks calls on instructors to go further, though. As part of a transformational approach, instructors change “the structure of the curriculum... to enable students to view concepts, issues, events, and themes from the perspective of diverse ethnic and cultural groups”

(31). Going even further, Banks suggests a social action approach in which “students make decisions on important social issues and take actions to help solve them” (31). While these curricular changes focus on students, [St. Clair and Kishimoto \(2010\)](#) add a call for a parallel transformations of instructors as well, from an awareness of anti-racist information, through the ability to analyze racist systems, to self-reflection and an ability “to apply analysis for change, organizing, and disrupting racism” (2010, 23).

Multicultural education, in the sense of Banks’s higher levels and St. Clair and Kishimoto’s transformation of instructors, can be seen as part of the broader movement to “[decolonize the academy](#).” Seeking to move academia away from its intellectual and economic focus on the global north, this approach [calls for a course curriculum that is truly representative of the global nature and racial and ethnic \(and, one may add, gender\) diversity of scholarship, while also raising “awareness of the contexts in which scholarly knowledge has been produced,”](#) in the words of [Meera Sabaratnam](#), one its main proponents. In the United States, similar efforts can be found in projects such as [WomenAlsoKnowStuff](#), [Women Also Know History](#), and the various syllabi developed in connection with social justice movements: the [Ferguson Syllabus](#), the [Standing Rock Syllabus](#), the [Trump Syllabus 2.0](#), the [Immigration Syllabus](#), the [Islamophobia is Racism Syllabus](#), the [Charlottesville Syllabus](#), the [Puerto Rico Syllabus](#), and more.

While it is fairly clear how such efforts can transform the content and perspectives of courses in, for example, the social sciences and the humanities, or in nursing and health professions, this is not necessarily as clear in STEM disciplines, for example, and in other fields with seemingly ‘objective’ content. While it is true that, for example, DNA strands have the same structure, independent of the identity of the researcher, there are aspects of instruction beyond the disciplinary content, narrowly understood, that make classes more or less inclusive, more or less multicultural. For example, the identity of researchers whose work students encounter in class and in the readings is important for opening disciplines to underrepresented students. If students see people who they can identify with in the discipline, they will be able to see themselves in the discipline as well. Furthermore, while the content of a particular topic may be the same, social context matters for the meaning and importance of these topics and how they are understood by different students. [The metal lead, for example, has a different meaning and interest for students who grew up in low-income environments for which lead avoidance and containment were important than for students who never had to worry about such issues.](#) Though writing from a social science perspective, Sabaratnam notes this dynamic when [she notes](#) that “when BME [Black and minority ethnic] students report a sense of alienation from particular topics of study or dynamics in the classroom, we have a duty to address this through dialogue amongst teachers and students.”

Teaching that is truly inclusive and decolonized not only creates more justice in the academy, but also creates learning opportunities for students (and faculty) who broaden their range of interaction beyond populations that they are familiar with. Navigating these interactions is not easy, though. To make sure such interactions become effective learning experiences, faculty have to develop facilitation and leadership skills that assure their classrooms become [safe spaces, but also brave spaces](#) in which students are willing to become uncomfortable as they grapple with difficult topics. Luckily, there are some well-established techniques that faculty can employ, such as the development and application, together with students, of [ground rules](#), or various engagement techniques collected, for example, the [Start Talking](#) handbook developed at the University of Alaska Anchorage. Faculty should also prepare for handling potentially racist or sexist interactions, such as [microaggressions](#), between students in a way that supports the target of the aggression while giving the student who initiated the offense an opportunity to revise and learn from it. Several such approaches (such as [Open The Front Door](#) and the [ACTION](#) response) have been proposed by Tasha Souza.

Like all good teaching, inclusion work is hard work and more of an incomplete process than a perfect finished product. It requires learning, preparation, trial and error, and reflection. At least that's what the authors of these notes have found as white, heterosexual, cisgendered, full-time faculty with Euro-American backgrounds. Since the majority, though not all, of our colleagues at JMU are like us in this respect, we would like to offer some of the guiding questions that we have found useful in our work (partly based on more formal guides, [such as this one](#)).

Some of those guiding questions have to be about the course content. Whose work are you assigning? How was the 'canon' formed and who got to decide? How representative and relatable is it to today's diverse classrooms? Is diversity of course content simply an add-on for specific topics or is it deeply embedded into the disciplinary learning of the whole course? Which perspectives do you represent or invite into discussion? What examples do you use to illustrate a point? What topics or debates do you cover and which go unacknowledged, deemed not important enough to cover? What (or who) are your standards of excellence, of achievement, of mastery, of success based upon? Who is being centered? Who is being left out? What populations are the subjects of the course material? Who is being studied? Why were those studies conducted?

Other questions are about how you communicate and whom include or exclude when you do: Does text and the written word dominate and how else might students engage with important course concepts? How accessible are our assignments, our projects, our lessons, our exams? Why do they need to be done *that way*-- and not any of those *other* ways? What kinds of feedback do we offer? How do we address students? What beliefs do we hold about them? Who do we call on in class? Who raises their hands in the first place-- and why might that be? How can students participate? How are we creating community? How are we conveying our belief that all students can meet their/our goals?

Other questions are related to who our students are and what backgrounds they bring to the learning situation: Which students are set up, before the course even begins, to achieve the course's learning objectives? What prior knowledge or experiences are we assuming in our course? What ways of knowing and expressing are considered acceptable? What ways of dissenting are considered "polite" and "civil" and "reasonable" and "rational"? Who gets spots in our labs, in our shows, on our teams? By what criteria are those decisions made-- and who do they privilege? What course material may require certain students to relive traumas from their own lives?

And another set of questions concern our own behaviors and habits as teachers: What are our own implicit biases and how do we actively interrogate and mitigate them? To whom are we available? What cultural norms are we embodying and thereby implicitly condoning? What do we do when we witness racism or sexism or ableism? How do we handle [stereotyping](#) and [microaggressions](#)? What do we avoid addressing? How does fear hold us back? Who is being silenced or suppressed? Which injustices are we naming and which are we ignoring? What actions are we taking?

Active Learning, Student Engagement, and Group Learning

The stereotypical divide between faculty in higher education and "education people" in higher education is that most faculty use, and like, lectures as the standard mode of "delivery" while the "education people"—faculty developers, educational developers, instructional designers—reject lectures out of hand and promote "active learning." This description is overall correct, though maybe a tad overdrawn. Higher education has a long tradition of great lecturers and great lectures, and [many educators like to give and listen to lectures](#). At the same time, there is good evidence that lectures are less effective when

it comes to student learning, compared to active learning approaches (for a recent meta-analysis in STEM fields, see [Freeman et al. 2014](#)).

The lesson from these findings is that active learning that engages students is important. This makes sense, as students need to be actively involved to reach Bloom's higher-order learning objectives or Fink's more applied and integrative learning goals. But this does not mean that the lecture has no role. It can be used to summarize information, provide overviews, or convey the instructor's passion or enthusiasm for the subject matter ([Bligh 2000](#); [Harrington & Zakrajsek 2017](#); [Barkley & Major 2018](#)). But it should be employed and designed with these goals in mind and with practices known to be effective for learning, such as brevity (not more than 15-20 minutes in a classroom setting, shorter online), clear structure, and a repetition of the main points. Furthermore, lectures should be punctuated by active-learning, even if it is employed for only short interruptions of an overall lecture class. Even in large classes, it is possible to employ think-pair-share activities, brief reflective writing exercises, muddy point discussions, or other short "classroom assessment techniques" ([Angelo & Cross 1993](#)) and "learning assessment techniques" ([Barkley & Major 2016](#))—the latter of which the authors align to Fink's dimensions of significant learning—that can activate students and pull them back into the classroom.

Student engagement in active learning can obviously go beyond CATs that are inserted in lectures. Problem-Based Learning (PBL), Team-Based Learning (TBL), Service-Learning/Community Engagement (S-L/CE), Process Oriented Guided Inquiry Learning (POGIL), and other, usually acronym-heavy, approaches organize learning around wholesale active inquiry and problem-solving.

As these examples indicate, most active learning approaches are cooperative or collaborative—they engage students in interaction with each other, usually in groups or teams. Some reflection reveals that all learning is social in some way: we learn from somebody, even if we read a book, or just a manual, on our own. But group learning tends to be more structured than that. In cooperative learning, students work together to apply, analyze, and critique course content and sometimes to create artifacts such as group presentations, group papers, or more applied disciplinary artifacts or events. Collaborative learning, in contrast, attempts to go beyond the use of pre-existing course content to engage students in a co-construction of disciplinary knowledge. Behind the different approaches and models, however, lies the insight that good teaching engages students in interaction with their peers as well as the instructor.

Learning as (Co-)Construction

The distinction between cooperative and collaborative learning above draws on the distinction between the banking model of teaching and a constructivist approach to learning. The Brazilian educator Paulo Freire, in [Pedagogy of the Oppressed \(1970\)](#), used the term "banking model" to refer to an approach to teaching that viewed the teacher as a reservoir (or a bank) of knowledge that would be deposited in the relatively empty mind of the student. (This model is still reflected in the use of "delivery" for teaching.) Freire criticized this, somewhat strawmanish, model of teaching as it denies student agency in education and focuses on passive learning, not the active engagement of education in shaping the world. (Similar arguments can be found in John Dewey's work, of course.) Empirical research illustrates Freire's characterization, as students have been found to develop a certain sophisticated passivity in lecture-rich classrooms that simulates engagement and attentiveness (don't we all love the noddors?) while being not quite present ([Karp and Yoel 1976](#)).

The clearest contrast to the banking model is a model of learning in which teachers and students co-construct knowledge. At first sight, this approach sounds relativist, but it usually is not. Construction of knowledge can be the creation of mental models that help students connect new pieces of

information with what they already know. Construction can also mean the replacement of faulty student beliefs with empirically correct conclusions in a particular field. But construction can also mean the development of opinions about evaluative questions, or the creation of hypotheses, solutions, and the like, by students—on the basis of certain disciplinary practices. In other words, constructivist learning means that teaching has to go beyond telling (though this may still be part of it) and include an active involvement of the students in making connections, analyzing, critiquing, and creating.

Once teaching moves away from the banking system and acknowledges that it is learners who have to make the content their own, then the focus shifts away from the teacher in the center to the learner. This change of focus is reflected in the change of trite slogans—from the “sage on the stage” to the “guide on the side” to the “meddler in the middle”—as well as in book titles ([Leaving the Lectern, 2005](#), for one). While the corny slogans may give rise to ridicule, the point is important: If teachers want to teach effectively, they have to make sure that learners learn. Or, as Doyle notes in his summary of the evidence for learner-centered teaching ([2011](#)), “the one who does the work does the learning.” Weimer ([2013](#)) identifies five central aspects to learner-centered teaching: The teacher's role changes from somebody who provides information to somebody who facilitates students learning; the power shifts from teacher to students, so that students are respected as “autonomous, self-directed, and self-regulating learners” (see also [Nilson 2013](#)); the focus moves from content coverage to the development of learning skills; responsibility for student success shifts from teacher to student; and assessments are more strongly based on self- and peer-evaluation of students.

Teaching is Scholarly, as Practice meets Evidence

While educational research is far from perfect, we do know a great deal about how learning works (i.e., “the science of learning”), from a range of disciplines, from education and educational development, over educational psychology, to the cognitive sciences. A number of authors have summarized aspects of this research in easily digestible form:

- Ambrose et al., [How Learning Works: Seven Research-Based Principles for Smart Teaching \(2010\)](#)
- Bransford et al., [How People Learn: Brain, Mind, Experience, and School \(2000\)](#)
- Brown et al., [Make it Stick \(2014\)](#)
- Eyler, [How Humans Learn \(2018\)](#)
- Lang, [Small Teaching \(2016\)](#)
- National Academies of Sciences, Engineering, and Medicine, [How People Learn II: Learners, Contexts, Cultures \(2018\)](#)
- Neuhaus, [Geeky Pedagogy \(2019\)](#)
- Willingham, [Why Don't Students Like School \(2009\)](#)
- [\[add online teaching books?\]](#)

This research has produced a range of implications for what makes teaching effective. To note just a few examples: There is ample evidence for the finding that what students (can) learn is influenced by prior knowledge, that is, what they already (think they) know (Ambrose et al. 2010); testing and retrieving information facilitates the long-term retention of information ([Larsen et al. 2009](#)); learning is communal and supported by others ([Springer et al. 1999](#), [Tomcho and Foels 2012](#)); multiple, varied examples facilitate understanding of concepts ([Guo et al. 2012](#)); and qualitative feedback on writing assignments has a stronger effect on achievement than grades ([Koenka et al. 2019](#)); student achievement improves if they view their abilities not as fixed but as something that can be grown (Dweck 2006). Conversely, the idea that student learning improves if they are taught according to their preferred learning styles [has been soundly rejected](#).

The principles presented in this section of the guide are based on such multi-disciplinary evidence as well as the practices of [teaching faculty in higher education](#). Both sides meet in the [Scholarship of Teaching and Learning \(SoTL\)](#), an applied research approach in which educators use the teaching literature to innovate their teaching and collect data to feed back into the literature on college-level teaching ([Boyer 2016 \[1990\]](#), [Bishop-Clark and Dietz-Uhler 2012](#)). SoTL challenges educators to view their teaching as scholarly: well-designed learning activities are based on well-founded hypotheses about student learning, and the classroom implementation then provides the observational basis for evaluating the effectiveness of the learning activities, potentially to be shared with a community of fellow practitioners in the discipline or in higher education more broadly ([Richlin 2001](#), [Hutchings and Huber 2005](#)).

Importance of Reflection

Underlying all of these important considerations, processes, and principles of teaching is the idea of reflection—of pausing, of [checking our assumptions](#), of learning lessons from the past that can carry us into the future. How can we be intentional if we aren't reflecting on our own goals? How can we assure alignment of our course if we aren't reflecting on how well our activities and assessments match our objectives? How can we create multiple paths to success for all students if we aren't reflecting on situational factors, motivation to learn, and barriers inadvertently put up (especially for certain underserved, underrepresented, and marginalized learners)?

While teaching is a scholarly practice that can be based on generalizable research—something that all faculty can learn how to do well—it is a practice that teachers have to make their own, in their own individual ways. Reflection is central to the process of determining who we are as teachers. While his use of the term “soul” may not agree with everybody, [Parker Palmer, in his classic *The Courage to Teach* \(2007\)](#), shows how this process involves the whole, the core, of the teacher's personality, beyond educational technique and even purely cognitive involvement: “Teaching, like any truly human activity, emerges from one's inwardness, for better or worse.... Viewed from this angle, teaching holds a mirror to the soul. If I am willing to look in that mirror, and not run from what I see, I have a chance to gain self-knowledge—and knowing myself is as crucial to good teaching as knowing my students and my subject.”

To online and beyond

Most of the ideas, approaches, and principles discussed in this short guide were developed with a traditional in-person learning environment in mind: learning taking place in classes that regularly meet, in classrooms that have a front and a back, with instruction provided by expert teachers, mostly through written and/or spoken text, and so on. But what we present here is not dependent on this environment, and in fact undermines it to some extent, for example through an emphasis on active learning and learner-centered teaching. Another area where this “traditional” view of learning is being challenged is in the growth of online learning. While this guide does not provide an overview of the principles for good online teaching (and blended online/in-person teaching), we note in conclusion that the points made in this document can be adapted or expanded to online environments, just as they can be adapted and expanded to a range of situational factors. The worlds of educational development and instructional design deal with partly differing literatures, to be honest: For example, Robert Gagné's work on [Conditions of Learning](#) integrates a number of ideas related to the development of learning objectives and their connection to learning activities and assessments, anticipating some of the work that we've reviewed here under the heading of Constructive Alignment.

Other concepts with more currency in the instructional design world can be extended and adapted to in-person teaching environments. That is the case with [Michael Moore's concept of transactional distance](#), which emphasizes the spatial and temporal distance in online learning environments and challenges instructors to foster the level of student autonomy needed to deal with that distance. While that distance is smaller in traditional in-person classes, it is still there as, for example, students work on research projects or term essays.

In sum, teaching is good teaching, online and offline, as it pursues important goals that challenge students to grow, align learning activities and assessments with those goals, and focuses on helping students become learners that pursue their values and interests and keep doing so even after their formal education has ended.