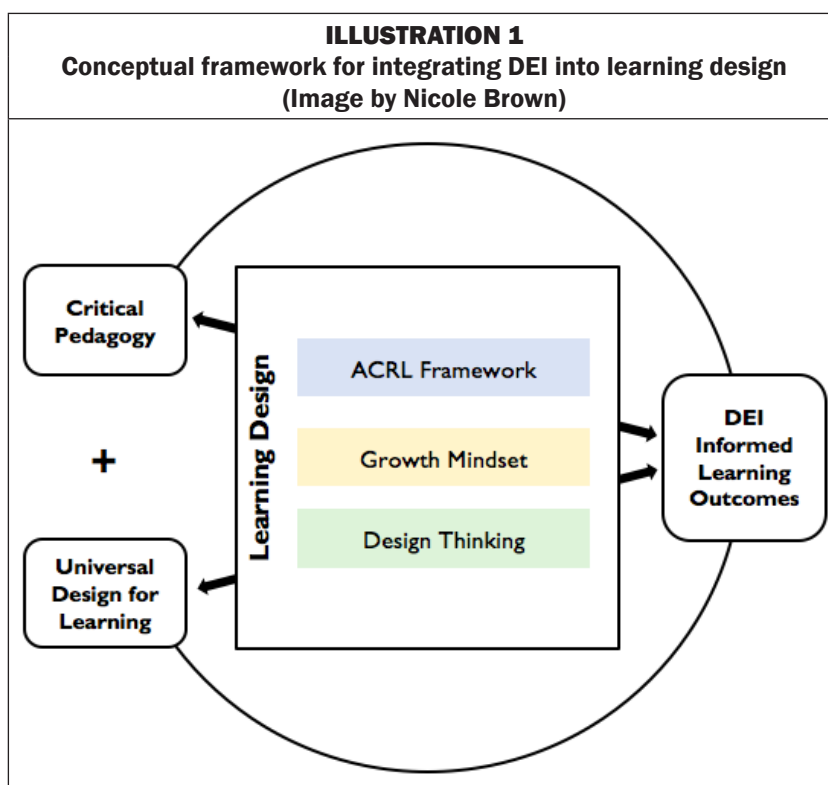# Diversity, Equity, and Inclusion:
A Conceptual Framework for Instruction

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Introduction

Frequently the issue of accessibility within the context of libraries is framed as accommodation predicated on difference. Until recently the issue of accessibility has often been framed in terms of what one lacks: how can we work with individuals who cannot see/hear/move in the way most learners can? In contrast with this approach, our paper addresses this issue by reframing it in terms of diversity, equity, and inclusion (DEI)[1] within the contexts of critical pedagogy, instructional design, and information literacy teaching and learning. Using DEI to recast this issue reveals significant intersections of Universal Design for Learning (UDL) principles with three current models for learning: the ACRL Framework, growth mindset, and design thinking. By illustrating these intersections and bringing together these three approaches, we provide a conceptual framework for designing information literacy teaching and learning, empowering participants to enact curricular change in libraries and information literacy instruction and to meet the needs of diverse populations of learners. Given the flexibility we wish to promote, we provide a framework that may be approached from multiple vantage points and adapted

for different educational settings, in distinction to a logic model, which is outcomes-based and focuses on demonstrating impact. One critical caveat: as three white people living without disability, who hold positions of power in institutions of higher education, we recognize our privilege, and acknowledge that our positionality informs our approach. Likewise, we respectfully acknowledge the authority of other librarians, educators, and thinkers engaged with DEI: we endeavor not to co-opt, but to connect our ideas with theirs.

Examining the intersections of UDL with these three models for learning necessitates an overview of UDL, which embraces three principles: providing learners with multiple

ILLUSTRATION 1
Conceptual framework for integrating DEI into learning design
(Image by Nicole Brown)

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means of representation (the "what"), with multiple means of action (the "how") and with multiple means of expression (the "why"). It is this lattermost approach that addresses the affective element of learning, because multiple modes of expression encompass how learners "get engaged… how they are challenged, excited, or interested."[2] Indeed, the affective element of learning plays a significant role in each of the three current models—the Framework, growth mindset, and design thinking—in their potential to foreground diverse ways of knowing, and foster inclusive learning environments. Learners come to educational settings—classes, tutorials, spaces—with perspectives informed by myriad experiences. In focusing on the affective element in learning we may at once cultivate compassion for and privilege their diverse perspectives, which in turn may ensure we adopt more inclusive teaching practices and learning design.

Critical Pedagogy

As one area that intersects with our model, critical pedagogy encompasses a variety of pedagogical theories and practices, but its primary concerns may be described as ways of "thinking about, negotiating, and transforming the relationship among classroom teaching, the production of knowledge, the institutional structures of the school, and the social and material relationships of the wider community."[3] Similarly, Maria Accardi succinctly describes it as a pedagogy that "seeks to transform society and achieve social justice through education."[4]

Many foundational concepts and practices of critical pedagogy intersect with our approach to information literacy teaching and learning. Critical pedagogy focuses on systematically critiquing power relations as a means to enact transformation and social justice, which overlaps with and is informed by issues of diversity, equity and inclusion. Our focus, however, is on the affective element that is a through-line through each of the three models we examine, and aligns with bell hooks' delineation of the role of emotion in education. In writing of the classroom community, hooks asserts that as teachers "our capacity to generate excitement is deeply affected by our interest in one another, in hearing one another's voices, in recognizing one another's presence."[5] Compassion and empathy are fundamental to the educational enterprise, and essential components of the affective domain of learning.

Universal Design for Learning

Our conceptual framework is a companion to any library instructional instance. The ACRL Framework dispositions, growth mindset theory, and design thinking practices work together in the service of creating DEI-informed learning outcomes. The outcomes also must be informed by instruction design (ID) and the related learning design concept of UDL. Altogether, to implement successfully prepared instructional instance, the educator must be acutely aware of the interconnectedness of ID and the UDL framework. With a dual focus on ID and UDL, an instructor can build a learning object or implement a lesson plan with the mindset that these concepts are essential in the process. Both face-to-face learning and online learning, or any hybridization of the two, require intentional and organized instructional design.

Instructional design is the systematic process of creating or adapting instruction. There are many instructional design models. Some of the common models are ADDIE,[6] rapid prototyping,[7] and the Dick and Carey systems approach.[8] Many of these models and others share the following similar design elements, where the educator must:

- Define the problem or knowledge gap that the instruction is meant to address;
- Identify the audience that the instruction is meant to serve;
- Develop learning objectives and assessment strategies;
- Select and sequence content and learning activities;
- Build a cycle of revision.

Good instructional design helps learners make sense of the material, mentally organize it, and connect it to their schema. It also helps learners manage their cognitive load by ensuring that a learner's working memory balances multiple sensory channels, such as listening to instruction while also interpreting language and imagery, and also possibly completing a task. Clark and Mayer describe this phenomenon as one of the multimedia principles of instructional design.[9]

Educators who employ instructional design principles are challenged to create learning environments that minimize extraneous cognitive processing, manage essential processing, and foster generative processing.[10]

UDL is an important addition to instructional design because it underscores how all learners and their needs should be considered as learning objects are created. The authors have created an exercise for instruction librarians to consider for their organizational approach to UDL-integration into information literacy instruction. At the Midwinter 2018 American Library Association Conference, the authors conducted this exercise as a workshop "Not Just Another Frame: Diversity, Equity, and Inclusion (DEI) in Information Literacy and Instructional Design" at the ACRL Student Learning and Information Literacy Committee discussion forum. Attendees learned about UDL and then discussed UDL in terms of online tools (videos, tutorials, learning management systems) and library spaces. Attendees examined each frame from the Framework for Information Literacy for Higher Education and brainstormed for ways in which each frame connected to UDL concepts or practices. They also looked for UDL practices that were or were not apparent in their practices at their home institutions.

Reflection questions included the following:
- List characteristics of your learner populations.
- How would you describe your users' backgrounds and perspectives?
- What pedagogical practices do you currently use to accommodate diverse learners?
- What instructional design practices could you adopt to accommodate and actively include your learners?
- What in-person practices can you transfer to an online environment, and vice-versa?

We aim to place this exercise in the Project CORA (Community of Online Research Assignments) Teaching Toolkit repository and the ACRL Framework for Information Literacy Sandbox.[11]

Leveraging Dispositions from the ACRL Framework

Finalized in 2015, the Framework for Information Literacy in Higher Education represented a significant departure from ACRL's previous Information Literacy Competency Standards in a number of ways, most notably in its formulation of the concept of information literacy as a cluster of interconnected concepts with associated learning goals, rather than a set of skills-based competencies.[12] It also represented a shift in how learners are portrayed in relation to information. As Nancy Foasberg writes, the learner in the Competency Standards is simply classified as information literate, whereas "the Framework portrays the relationship of students to information as often active and critical…the student…actively works to develop [their abilities]."[13] One significant reason for this latter shift in a learner's relationship to information stems from the Framework's inclusion of practices and dispositions that describe ways to address the "affective, attitudinal, or valuing dimension of learning."[14] This inclusion speaks to—and is perhaps partly the result of—librarians' calls in recent years for a greater focus on the affective elements of learning in relation to information literacy, given its importance in fostering and directing cognition.[15] Affective qualities that emerge in many of the Framework's dispositions range from curiosity and motivation, to confidence in questioning traditional notions of granting authority, to a willingness to persist in the face of challenges. It is important to note that these qualities, particularly confidence and persistence, are

goals that novice learners *strive* for, and when they begin to engage with the library and librarians, they may frequently start from a place of uncertainty, even anxiety.[16] With this in mind, leveraging the Framework's dispositions that center on curiosity—many of which align with the concept Research as Inquiry—may be one useful starting point for learners.

For example, at Indiana University Libraries we regularly design in-class exercises using a peer review exercise, also known as a gallery walk, in which students write down their current research topic or one from a previous class. They then either post it on the wall or pass it to their neighbor, depending on students' preferences and abilities. Other students use post-it notes or write additional keywords and questions, then continue this process, cycling through at a pace determined by the students. (Many students opt for a one- or two-minute time limit before moving on, since it lends a 'gamification' element to the exercise.) Once students return to their own topic, they see their peers' suggestions and have a greater base of ideas from which to start their research.

Our assessments thus far consists of gauging students' affective responses during and immediately after the exercise, and asking them to write down at the end of class what they found most useful about it. During the session students are quiet but engaged, and when they return to their research topic we often hear quiet exclamations of surprise at the number of their peers' comments. In their written responses a majority of students indicate they feel more confident about beginning their research, both because of their peers' suggestions and because they know more than they realize. By using a constructivist approach to instruction, the exercise reinforces for students the value of their individual and collective understanding about a subject, primes them to consider multiple approaches to their research topic, and motivates them to continue their research.

This is one way in which dispositions from the *ACRL Framework* may be intentionally integrated into information literacy teaching and learning to help elicit intellectual curiosity, develop empathy for learners, and further DEI through valuing the affective side of learning. Recognizing and designing strategies that align with the affective elements of the Framework, particularly curiosity, can serve as a necessary catalyst for the cognitive element of learning, and for fostering an inclusive, supporting environment for learners.

Fostering Motivation and Growth

As we theorize this conceptual framework, it is important to underscore that we draw from the ACRL Framework and encourage students' development of their habits of mind, knowledge practices, and dispositions.[17] We believe this encouragement requires librarians to reflect on their own habits of mind, namely their mindset. Applying the work of psychologist Carol Dweck, we have added Dweck's implicit theories of intelligence to our "Learning Design" structure in order to show how mindset should be considered while engaging with the Framework and design thinking.[18] We posit that mindset is a concept that teaching librarians must reflect upon before they can create DEI-informed learning outcomes.

The instructional positioning of the teaching librarian and other educational partners plays an important role that can advance learners' abilities within the information ecosystem. If educators examine their own positionality, they can consider their influence on the possible learning trajectories of their students. In this sense, Dweck's entity theory of intelligence (a fixed mindset) and an incremental theory of intelligence (a growth mindset), if applied to information literacy instruction, can inform how an educator can stymie a student's development of information literacy or help it to emerge and develop further. As librarians teach information literacy within a diverse population, they must recognize their past teaching practices and possibly reframe those practices to be more inclusive (e.g. highlighting missing voices amongst citations; framing the advantaged and disadvantaged socioeconomic factors of access to information). Such work necessitates enacting the incremental theory of intelligence to do right by our learners of color, differing ability, LBGTQI-identity, etc.

If librarians do not take on the growth mindset for these populations, they risk alienating and casting aside the best learning experiences for those whose success has traditionally not been included in the hidden curriculum of higher education.[19] In more specific terms, Amanda Folk notes that "a teacher's implicit theory of intelligence could significantly affect the skills he or she believes should be taught to the segment of the student population most at risk for failure and could result in a lack of engagement on the part of low-achieving students."[20] The growth mindset, while a well-debated theory,[21] can be a starting point for opening one's understanding of educational impact.

For example, at Harvard Library, librarians and communications scholars have created a teaching curriculum, "The Art of Teaching," to help librarians think about how mindset has affected their approaches to both teaching and learning.[22] The curriculum borrows from Dweck's theories and also from others related to innovation and change management.[23] Harvard's Kris Markman, Deborah Garson, and Maura Ferrarini implemented the curriculum in 2016 as a short professional development course. In 2019, this course has been expanded to a full 16-week, practicum-based experience to help its participants consider their mindsets as they relate to library-related training and information literacy instruction.[24] While the curriculum is still in pilot mode, the current instructors hope to complete assessment work to see if future participants' change of mindset can be gauged.

Drawing on Design Thinking

In our conceptual model, principles and practices from design thinking work alongside leveraging the ACRL Framework and embracing a growth mindset to create DEI-informed instructional opportunities. There is no consensus definition of design thinking—even among design professionals. A recent piece entitled "What is Design Thinking, Really?" seeks to answer this question by interviewing a number of designers; the conclusion is that a lack of a single definition is a benefit—allowing for "flexibility in meaning," which "encourages challenge, exploration, and inquiry, and allows people to morph the concept to their needs".[25] In a 2015 *Chronicle of Higher Education* essay, Peter N. Miller questions whether design thinking is the new liberal arts and offers the following definition: "an approach to problem solving based on a few easy-to-grasp principles that sound obvious: 'Show Don't Tell,' 'Focus on Human Values,' 'Craft Clarity,' 'Embrace Experimentation,' 'Mindful of Process,' 'Bias Toward Action,' and "Radical Collaboration.'"[26] Miller goes on to share the five modes of design thinking: "empathize, define, ideate, prototype, test," which fall under the broad headings of "hear, create, deliver."[27] In higher education, this means focusing "on human needs as the starting point for innovation and problem solving" and then employing "a fairly well-defined process for developing products and systems that meet those needs."[28] For students, this translates to collaborative problem-solving. But what does it look like in libraries?

Writing from a library leadership and management perspective, Jennifer A. Bartlett offers a literature review of design thinking in LIS, summarizing it as "a process in which we try to solve problems by first challenging our common assumptions through understanding our users and what they want and need."[29] Seeking to make a case for design thinking in libraries, John Meier and Rebecca K. Miller give a high-level introduction to the topic and focus on the power of rapid prototyping to design services, instruction, and assessment, pointing out that rapid prototyping "allows librarians to discover problems before too much time is invested in perfecting a research guide, tutorial, or lesson plan that may not actually meet our learners' needs in the way that we think it will."[30] Similarly, Steven Bell argues that "librarians can adopt the design thinking process to become more intentional about the library user experience," and points out that these methods are "particularly applicable when the exact nature of a challenge and possible solutions are ambiguous."[31] Bell reminds us that "thinking like a designer involves following a user-centered process that stresses problem finding as much as, if not more than, problem solving."[32] This posture of "problem finding" is essential when designing learning

experiences that respect diversity, equity, and inclusion; it is consistent with the approach to removing systemic barriers outlined by DeEtta Jones, who asserts that "equity demands that we focus on the 'fence'—the structural barriers to equality—rather than focusing on helping people see over it.[33] For instruction, this means identifying and naming barriers that get in the way of student learning, and the process-driven approach advocated by design thinking can help.

Design Thinking + Learning Design

Design Thinking for Libraries is a free resource that includes a short "Design Thinking in a Day" activity; a workbook complete with icebreakers, techniques, and exercises; and a book-length document that can be used to redesign programs, services, spaces, and systems.[34] Much of this material can be used for designing learning spaces and experiences on an extensive scale. A more lightweight exercise for designing learning looks at a learning situation through five characteristics laid out by Tim Brown: empathy, integrative thinking, optimism, experimentalism, collaboration.[35]

Select a learning experience and a learner population, and cycle through the following prompts:

- Empathy—What might this experience feel like for this learner population?
- Integrative thinking—How am I thinking about this learning experience? What other perspectives can I incorporate?
- Optimism—Remind yourself that there are alternative solutions and that you are capable of uncovering them.
- Experimentalism—What constraints am I experiencing? How can I harness them for creativity?
- Collaboration—Who else can I talk to?

At UC Berkeley Library, we are working to build empathy around the learner perspective, and recently added the following question to our end-of-session survey: "If you experienced any barriers to learning (for example due to age, gender identity, language, racial or ethnic identity, social or economic background, etc.) in today's workshop, describe them here." Learner responses to this prompt help us to identify barriers that we can then work to dismantle. We can apply the principles, processes, and characteristics of design thinking to keep us focused on the human element of problem-solving. When applied to learning design, this iterative approach begins from a foundation of empathy and underscores the affective element of designing instructional content, encouraging librarians to anticipate the experiences of their learners before designing learning objects and environments.

Conclusion

Our use of UDL principles, in tandem with dispositions from the Framework, growth mindset, and design thinking, provide one conceptual and flexible framework for strengthening instructional design, primarily by engaging with the affective element of learning in each of these models. By designing pedagogical strategies that draw on the Framework's dispositions; by examining how our own mindset and positionality affects our teaching; and by using elements of design thinking to empathize with and ideally dismantle barriers to learning, we may work toward ensuring that diversity, equity and inclusion are addressed in instructional design and information literacy teaching and learning. From a practical standpoint, our framework poses two important questions to consider going forward: first, how do librarians design and teach information literacy learning with DEI in mind? Second, how can DEI be considered and applied when designing curricular or learning outcomes?

We believe these questions represent two of many areas to study going forward, and have endeavored—in the spirit of UDL—to design a framework flexible enough to help foster DEI-centered pedagogy and help reduce

barriers for students. We also, to paraphrase bell hooks, recognize the absolute necessity of hearing one another's voices and recognizing one another's presence, both to generate excitement among our learners (and ourselves) and to foster greater compassion, empathy, and curiosity.

Endnotes

1. We define the terms diversity, equity and inclusion according to ALA's Interpretation of the Bill of Rights. While these terms each embody complex ideas and overlap in equally complex ways, our using them together is not intended to minimize their complexity or importance. Instead, our model draws on their interrelatedness with an emphasis on equity. We follow Deetta Jones' argument for the need to focus on equity—dismantling structural barriers to *equality*—which can (in turn) lead to greater diversity and inclusion. See American Library Association's "Equity, Diversity, Inclusion: An Interpretation of the Bill of Rights," June 27, 2017, http://www.ala.org/advocacy/intfreedom/librarybill/interpretations/EDI. See also Deetta Jones' "Equity: The Missing Piece of the EDI Puzzle," July 5, 2018, http://www.deettajones.com/equity-the-missing-piece-of-the-edi-puzzle.
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