

# Preface

Welcome to the second edition of *Universal Design for Learning in the Classroom: Practical Applications for K–12 and Beyond*. This new edition not only builds on the work of the earlier edition, it also introduces new work and a new framework for understanding and providing examples of multiple ways in which Universal Design for Learning (UDL) can be applied in today’s classrooms.

So much has happened in educational research, classrooms, and in the world since our first edition of this book, edited by Tracey E. Hall, Anne Meyer, and David H. Rose, which reflected the research and implementation practices of the years 1996 to 2010. That edition, like most literature about UDL up to that time, focused heavily on the role of digital technologies in expanding learning opportunities, especially for students with disabilities and other learning differences. While personal digital technologies such as mobile phones, tablets, and laptop computers continue to provide educators with flexible, malleable means to customize learning experiences for students, the fact that those technologies are embedded so extensively in our lives today makes them, ironically, less of a topic of discussion: they are a given, not an exception, in the learning experiences of most people.

In 2012, UDL was also seen primarily as a special education strategy. Though its creators always intended for UDL to span general and special education—thus bridging the gap in academic rigor and accessibility between the two—the field drew most of its interest, energy, ideas, and funding from special education or, at the collegiate level, from disability offices.

Today, UDL is widely accepted in practice, research, and policy as an effective approach to learning design. In practice, many thousands more educators around the world now use this research-based framework every year to design and

implement inclusive learning opportunities. This is true in K–12 schools, but it also bears out in higher education, early childhood, workforce and corporate training, and informal learning settings, such as museums and outdoor recreation programs. While much of the education conversation of the past decade has focused on so-called personalized learning, that discussion has been noticeably short on specific strategies and structures that give meaning to the term “personalized.” How do we enable education to be personalized for each and every learner? UDL is how.

When applying the UDL Guidelines developed by CAST (an educational non-profit organization focused on researching and promoting equitable and inclusive learning), educators create instructional goals, methods, materials, and assessments that lower unnecessary barriers to learning. They offer appropriate supports that enable learners to stay focused on mastering knowledge and skills. They design learning experiences that, as much as possible, put every learner on a level playing field. Curriculum developers and publishers are also applying UDL to the creation of their materials to a much higher degree now than they did in 2012, and they celebrate the universal design of their school products.

Teacher education programs now, at the very least, introduce preservice educators to UDL. The number of resources on the topic available to educators has proliferated: most major publishers of education books now have titles addressing UDL. CAST itself launched a publishing imprint in 2014 to explore the many ways and venues of UDL implementation.

The Universal Design for Learning Implementation and Research Network (UDL-IRN), established in 2011, has brought together stakeholders from across disciplines to share and stimulate research and best practices. Together with CAST, the UDL-IRN has led the authoring of UDL educator credentials and a product certification pathway for companies.

In research, the volume of literature about uses of UDL in classroom practice, instructional design, administrative decision making, teacher preparation, product design and development, and elsewhere has ballooned. Researchers have also examined academic outcomes and the social–emotional effects of UDL implementation. The most recent meta-analysis corroborated earlier findings and yielded a positive combined effect for all learners (ranging from prekindergarten to adults) receiving UDL-based instruction as compared to business-as-usual conditions (King-Sears et al., 2022, 2023). Even a cursory search of education databases turns up hundreds of articles every year about UDL.

In recent years, researchers have also begun examining the potential of UDL to address questions of equity, including those centered around race, culture, gender, and disability. At this writing, CAST is spearheading an effort to envision and revise the UDL Guidelines through an equity lens to make sure the framework is effective at helping design equitable learning environments.

By 2012, UDL had been endorsed in the United States in the federal Higher Education Act and the work of several states. Today, UDL is endorsed throughout federal education policy at all levels, and statewide UDL initiatives are taking place in California, New Hampshire, Massachusetts, Texas, and elsewhere. Dozens

of states mention UDL in their state plans mandated by the federal Every Student Succeeds Act (ESSA; Lowrey et al., 2020).

## Goals of the Second Edition

This new edition of *Universal Design for Learning in the Classroom* reflects this more expansive application of UDL in education as a whole, in traditional and nontraditional contexts, and in formal and informal learning settings. In particular, the emphasis in this volume has shifted to larger questions of equity, not just around educating students with disabilities but around educating all students who may be marginalized by old, ineffective practices. Some themes in this volume include:

- The importance of getting learners involved in the design of their own experiences. Several chapters highlight the benefits of co-design and close consultation between students and teachers to better meet learning goals.
- Directly addressing questions of equity and bias—racial, cultural, socioeconomic, and more. Though improving equity has been implicit in UDL practices and conversations in the past, the authors in this volume address the issue explicitly.
- Social and emotional learning (SEL) is also a new point of emphasis. This reflects a growing body of research that documents the interrelationship of social and emotional factors and learning. Again, while these factors were implicit in earlier conversations about UDL, they now become explicit.

As with the earlier version, this edition opens with the UDL Guidelines. Subsequent chapters carry forward the message of equity and inclusion through a deeper dive into traditional and new content areas and practices. Some of these chapter topics are similar to those in our first edition, and some address new focus points. However, all chapters except the Guidelines chapter (Chapter 1), which has been substantially updated from the first edition, are entirely new. And all connect the principles of UDL to specific domains and practices.

With input from stakeholders in the UDL field, CAST is developing a new edition of the UDL Guidelines that brings to the forefront the relationship of UDL to broader social concerns around equity and inclusion for all. Although UDL has been seen by many as addressing disability rights, this new effort recognizes that racism, sexism, ableism, cultural bias, and more issues need to be explicitly addressed. Furthermore, the Guidelines need to make the scholarship and best practices of previously marginalized individuals more prominent. In doing so, the Guidelines and principles may be incorporated into every classroom and context, for every learner, and for every community. In Chapter 1, Jenna W. Gravel and Nicole Tucker-Smith, who have led the UDL Rising to Equity effort, offer a substantial update of our previous chapter on the UDL Guidelines to provide a compelling peek at future equity-focused iterations.

The rest of the chapters in this book are entirely new. Reading and writing, which were addressed separately in our first edition, are now combined in Chapter 2 to focus on the interconnectedness of these literacy skills. Authors Anya S. Evmenova, Tracey E. Hall, and Peggy Coyne make the important point that “literacy skills are essential for students’ academic achievement across the curriculum as well as success beyond school.” They share key insights from current research; connect the UDL Guidelines and principles to the development of reading, comprehension, and writing skills; and suggest effective tools and strategies for helping all students build literacy skills.

What about science, technology, engineering, and mathematics (STEM)? In Chapter 3, Betty George, Matthew Love, and Gelyn M. Roble share creative ideas for applying UDL in the contexts of project-based and interdisciplinary learning for science, technology, engineering, and mathematics. They draw on the 5E Model of Teaching—Engage, Explore, Explain, Elaborate, and Evaluate—to show ways of helping students make meaning of their studies in science. They address the important question of how to assess student learning to improve instruction, and they tackle how UDL can shape interdisciplinary lesson planning. The implications of UDL for higher education and informal learning environments are also discussed. Applying UDL enables instructors to consider the varied needs of all students and provide robust opportunities to learn on a level playing field. “While all students present variability in how they learn and perform across academic disciplines, proactive steps can be taken to plan for all students’ needs to be met,” they write.

Project-based learning takes center stage in Chapter 4, where Chelsea Miro shares her particular model—the Unbound Classroom—that blends interdisciplinary planning with UDL considerations. Miro asks us to consider the full range of experiences and contexts that learners bring to the classroom, and to make space for students to leverage those in ways that optimize learning. “Students’ learning needs are affected by the whole of their world, of which school is merely a part, and we as educators need to meet them where they are,” she writes. “Our efforts can’t stop at their learning needs. We welcome the entire person in front of us, their language, their culture, and their history.” Culturally responsive, project-based design, according to Miro, can help students answer the critical first question of every learning enterprise: Why am I doing this?

Culturally responsive and culturally sustaining learning design also takes center stage in the following chapter on arts instruction. The authors of Chapter 5—Aysha Upchurch, Don Glass, Christopher N. Hall, and Edmund Adjapong—conduct a “culturally sustaining pedagogical remix” through which to explore fresh approaches to teaching visual and tactile arts. As with project-based learning, a culturally appropriate and critical approach to arts education is meant to expand opportunities to learn by providing more entry points for representation, action and expression, and engagement—the three UDL principles. Doing so affirms the cultural wealth of students’ own communities so that excellence is recognized not just in the distant museums of faraway or long-ago cultures, but rather exists and

is celebrated all around us. With compelling classroom examples, the authors show how this effort plays out in classrooms.

The authors of Chapter 6 blend the UDL framework with strategies that foster healthy social and emotional development to support emerging expert learners. “Mounting evidence shows that social and emotional skills are essential to the learning and well-being of all students across the academic lifespan,” write Gabrielle Rappolt-Schlichtmann, Christina Cipriano, Alyssa Boucher, and Kristin H. Robinson. Universal Design for Social and Emotional Learning (UDSEL) can “support educators in designing and implementing SEL that is inclusive for all learners and builds on the principles of Universal Design for Learning (UDL).” Along with UDL strategies to address variability in learners’ cultural and academic backgrounds, skills, strengths, and needs, the authors consider ways of building emotional intelligence with UDL, including persistence, self-regulation, self-assessment and awareness, cooperative behaviors, and more. They suggest a number of specific classroom strategies to help teachers assess and respond to their students’ social and emotional needs.

The themes found throughout this book of making learning relevant, engaging, and purposeful resound in Chapter 7, where Amanda Bastoni, Tracey E. Hall, and Kristin H. Robinson explore applications of UDL to career and technical education (CTE). Bastoni, a research scientist who was once New Hampshire’s CTE Teacher of the Year, looks at ways of supporting and retaining students in programs that are vital entry points to the job market for millions of teens and young adults. Learners who are marginalized in traditional college prep programs—those with disabilities, English language learners, students from low-income communities—rely on CTE in disproportionate numbers for career preparation. Just as traditional liberal arts and STEM courses can be inaccessible and barrier-laden, so, too, can those that train in welding, biomanufacturing, information technology, agriculture, public safety, automotive repair, or other CTE topics. Designing instruction with the inclusive UDL principles and Guidelines will make that work more effective. As one agricultural studies instructor tells Bastoni: “My students who couldn’t tell a soybean from a lima bean still need to achieve the same competencies as students who own their own cattle. How can I get my students who have only a little agricultural knowledge to know what I need them to know, while still challenging and engaging my students with years of experience?” With UDL, educators can design instruction that is flexible enough to meet students where they are in experience and knowledge.

Meeting students where they are is a fundamental theme of Chapter 8, as the authors examine how to use UDL in combination with antiracist education to make educational experiences more inclusive of Black and Brown learners. With poignant stories, Andratesha Fitzgerald, Mirko Chardin, and David Gordon demonstrate ways of building off of what students already know and can do to make their learning more relevant, welcoming, and effective. The authors challenge frequent misconceptions about students of color, and recommend ways to open lines

of communication with those who might be hesitant or afraid to reveal vulnerability. Antiracist, universally designed teaching is an active process of questioning assumptions, identifying practices that thwart academic goals, and creating new on-ramps to learning.

In Chapter 9, Kim Ducharme extends the theme of listening to students by exploring ways to use journey mapping and co-design to create learner-centered experiences. Journey mapping has its roots in commercial product design—a market-driven approach to figure out what customers want and how to deliver a satisfactory product or experience. Unpacking and documenting a customer experience step by step can reveal sticking points, wrong turns, and irrelevancies that lead to frustration in a process, whether that be opening a bank account or putting together a set of bookshelves. Similarly, journey mapping as a learning design tool helps educators co-design learning experiences with students and other teachers. Ducharme offers a detailed, step-by-step explanation of how this works. “Journey mapping is a simple but powerful tool to help us understand the learning needs of our students and to design more equitable learning opportunities,” she writes. It’s a fitting place for the book to conclude as it sums up a primary theme of this book—and, indeed, of UDL itself: putting learners at the center of our teaching and learning.

## Bon Voyage!

This new edition has been created for you and for your journey as an educator. It reflects the newest and strongest research that is effective for learning in classrooms, and for teachers and learners, and we hope you embrace this work as an opportunity to learn something new, discover ways to implement research-based practices, and honor learner voice and agency. Enjoy your journey.

## REFERENCES

- King-Sears, P., Stefanidis, A., Evmenova, A. S., Rao, K., Mergen, R. L., Owen, L. S., et al. (2022, April 21–26). *Achievement of learners receiving Universal Design for Learning interventions compared to control conditions: A meta-analysis* [Poster Session]. American Education Research Association Annual Meeting, San Diego, CA.
- King-Sears, M. E., Stefanidis, A., Evmenova, A. S., Rao, K., Mergen, R. L., Strimel, M. M., et al. (2022). Achievement of learners receiving UDL instruction: A meta-analysis. *Teaching and Teacher Education*, 122, 103956.
- Lowery, K. A. (2020). *Critical issues in Universal Design for Learning*. Knowledge by Design.