

Accelerating Access to the Curriculum

Universal design for learning targets new supports and on-ramps to the high-speed highway of instruction for students

BY SHELDON BERMAN

The architectural concept of universal design revolutionized our thinking about access to buildings, streets and playgrounds. Access issues were considered endemic to persons with certain physical disabilities — they had the problem and they were responsible for adjusting to the environment.

What reframed our thinking was the realization that the problem existed not in the users but rather in a deficient design that failed to accommodate people's natural variability. As universal

design became commonplace, architects and city planners discovered that a wide array of individuals — those using bicycles and baby strollers or those who simply enjoyed the incline of a ramp — took advantage of the alternative access. Universal design benefited everyone.

In similar fashion, universal design for learning, or UDL, is transforming access to the curriculum. And just as universal design revolutionized architectural design, UDL is revolutionizing curricular design and instructional planning by



Patricia Ganley (right), who works with schools on applying the universal design for learning through the CAST resource center, with students in a middle school science classroom.

providing the academic curb cuts and other pathways that facilitate access to core concepts and skills development by all students.

Curriculum Centric

As school and district leaders, we want to help teachers meet the learning needs of students with disabilities and of varied cultural, language and economic backgrounds. We understand that students learn in varied ways and may require different strategies to achieve the same goals. Our challenge is to plan for that natural variability and make the means of learning as flexible as possible while upholding essential goals.

Our traditional approach to teaching is curriculum-centric — that is, students' success in mastering the curriculum places them along a spectrum from gifted to average to failing or disabled. By contrast, UDL contends that the underlying cause of inadequate mastery is not the disability of the learner but rather the “disability” of a text- and print-dominated curriculum that fails to support and accommodate learners' diversity.

Our discovery that ramps and auditory traffic cues aid persons beyond those with disabilities has informed the UDL approach to curriculum. Instead of focusing on fixing problems, UDL strives to make all options as widely available as possible to support every student. More than just acknowledging variability in learning, UDL accepts

it as the norm and argues we should plan for it.

UDL's principles were articulated first in the 1990s by a Massachusetts nonprofit known as CAST (www.CAST.org), which today serves as the national center for UDL policy, research and professional development. Central to UDL's effectiveness is predesigning curriculum and instruction to include flexible options that address the natural and predictable variability among students. Through intentional planning that removes barriers within a learning environment, we can eliminate circumstances that contribute to failure.

CAST developed a framework to support teachers and curriculum developers in their planning and instructional design. Within that framework, UDL offers all students access to the curriculum by accommodating three systematic dimensions of variability: How students understand information, how they engage in learning, and how they express their learning. Because these dimensions are predictable, we can plan for them in advance and provide students with multiple ways to encounter new knowledge, participate in the learning experience and demonstrate their understanding and growth.

Means of Representation

Formal instruction long has been dominated by verbal communication and print media, which

(continued on page 35)

Bartholomew's Elevated Path Leads Through UDL

BY GEORGE VAN HORN

Seven years ago, the Bartholomew Consolidated School Corp. in central Indiana adopted the universal design for learning as the framework for curriculum and instruction for all students. The journey to full implementation has been bumpy at times, but we believe the results outweigh the challenges.

From 2009 to 2014, BCSC, a preK-12 district with 12,000 students who speak 54 languages at 18 schools, saw significant increases in the percentage of students passing the Indiana state assessment known as ISTEP. This included 24 percent gains in special education, 20 percent gains among those qualifying for free and reduced-price lunch, 48 percent gains among African-American students and 22 percent gains for Hispanic students. The graduation rate for those in special education increased 22 percent. Advanced Placement enrollment and exam passage also increased.

We attribute these gains, in large part, to improved learning environments based on the principles and guidelines of UDL. However, not all teachers embraced the concept immediately, nor did our implementation proceed without a hitch.

This is how we got there.

Districtwide Deployment

Focused on individualized learning, our district already had pursued the practices of inclusion and small learning communities. The more we learned about UDL, the more we realized how well the concept supported the district's beliefs and values. As a result, we began by implementing UDL in one pilot school, then took it districtwide.

An initiative like UDL must be supported by a districtwide conceptual framework that is grounded in a compelling "why." To be widely understood and accepted, the framework must be based in both research and common sense.

Neuroscience and brain research provide a solid research foundation for UDL, and the UDL core principle of individual variability appeals to the common-sense notion we all are different. School district leaders provided stakeholders with the clear, concise and compelling rationale to drive the initiative.

Taking advantage of our circumstances,

we saw an opportunity to align the UDL framework with Indiana's requirements for a new teacher evaluation process. We built our evaluation system around the instructional practice of UDL and weighted that component as the heaviest domain in the evaluation rubric. That alignment drove the UDL framework into every classroom.



George Van Horn facilitates the use of the universal design for learning in Indiana's Bartholomew Consolidated Schools Corp.

We received no additional funds to implement UDL, so we shifted some funds to support implementation and to make that support accessible to teachers and site administrators. Over time and with professional development, we retooled some existing positions, redeploying them as UDL building coaches and district-level UDL coordinators.

The realignment of resources and staff led to some difficult conversations about current practices. Teachers and site administrators had to rethink their own teaching and learning frameworks. Our district's forward-thinking teachers' union embraced the challenge of collaborating with the district's leadership team to meet the new accountability stand-

ards while staying true to our core beliefs. The teachers' association and district administration learned together why and how UDL would support instruction. This collaborative relationship was essential throughout many contract discussions.

Not Fade Away

Although our initial results varied, several years of student assessment results and other academic measures, as well as the data obtained through our teacher evaluation rubric, point to the positive outcomes of UDL.

The reluctant veterans who were standing on the sidelines waiting to see if this initiative would stick now have a clear answer. The teachers who saw UDL as just good teaching and did not understand the intentionality of using the new lens to reflect on and improve their practice now understand the importance of UDL principles and guidelines. Teachers receive training to guide students toward identified learning outcomes supported by building coaches and district-level UDL coordinators.

In retrospect, we realize that clearly showing the alignment of current practices and programs with the UDL conceptual framework would have helped dispel the notion by some teachers, especially veterans, that UDL was just a "flavor of the day" initiative directed by the central office that would fade away if ignored.

Now, in our eighth year of universal design for learning in BCSC, our commitment remains strong. We have institutionalized UDL as the framework for curriculum and instruction for all students and have added a focus on creating schoolwide learning outcomes based on the characteristics of expert learners developed by CAST, an excellent resource center (see page 36). We are creating learners who are knowledgeable, resourceful, strategic, goal directed, motivated and purposeful.

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A Scene Shifter: Personalization Under UDL

BY KATIE NOVAK

Imagine this scene in a 3rd-grade classroom: Students are sitting quietly on the floor as a teacher reads *Charlotte's Web* aloud. When the teacher completes Chapter 2, each student quietly writes a paragraph about Fern's point of view and how she feels about Wilbur the pig.

In a high school U.S. history class, students are given a document-based question on John Locke's *Two Treatises of Civil Government* (1690). They respond to the prompt on Chromebooks as the teacher conferences with individual students.

In both scenarios, students are immersed in rigorous text, the lesson is aligned to standards, and the class is well managed. The problem? The learning experience is not personalized and thus will not meet the needs of all students.

Multiple Channels

Personalized learning requires educators to provide options throughout the design and delivery of instruction so students can customize their learning experience. Universal design for learning, or UDL, offers a framework of strategies to support educators in building curriculum and instruction that encourage students to make choices that empower their learning, increase their engagement and improve their outcomes. By applying UDL, educators give students multiple means to learn content and skills, express their knowledge and engage in

authentic, relevant learning experiences throughout the process.

This intentional design allows students of all variabilities to access rigorous, authentic learning experiences in an inclusive classroom. It differs from differentiated instruction in that the focus of UDL is engaging and empowering all students to self-regulate and personalize their learning. In differentiated instruction, groups of students have different learning experiences, but this is regulated by the teacher and often based on the perceived ability of the group.

So what does this look like? Applying UDL to those same classrooms, we would see students absorbed in activities of their choosing.

In the 3rd-grade class, some sprawl on beanbag chairs, silently reading from well-worn copies of *Charlotte's Web*. Three students nestle on a couch, listening to the novel on an audiobook using a multi-headphone splitter. In another corner, two students take turns softly reading the book aloud to a group of peers. A graphic is projected on the whiteboard, pairing vocabulary words from the chapter with corresponding photos: apple blossom, woodshed, brook.

After students finish reading or hearing the chapter, the teacher shares options for expressing their understanding of Fern's feelings for Wilbur. Students set a goal for their work, gathering appropriate graphic organizers and rubrics if they decide they need the

support. Some students select stationery to write a letter from Fern to Wilbur. Others use purple gel pens to craft a poem or song about Fern's feelings. Still others choose to collaborate, so they retreat to the back of the room to create a skit.

The teacher, meanwhile, provides mastery-oriented feedback and Tier II support to all students as appropriate. (Tier II support is the first layer of additional support when assessments indicate students need remediation of skills to become proficient, independent learners.) At the end of the lesson, students reflect on their learning and write, type or dictate a holistic self-assessment before sharing their unique products with their classmates.

In the U.S. history class, a cluster of teenagers participate in a Socratic seminar in a corner of the room, using a provided template as they explore whether citizens have a right to dissolve their government. Others design John Locke's Facebook page and interpret the *Two Treatises of Civil Government* through a series of status updates in today's vernacular. Others choose to join the teacher in reviewing the strategies for closely reading primary source documents and responding to a document-based question on the AP exam.

Personally Empowered

In both UDL scenarios, students are still interacting with rigorous text, lessons are still aligned to college- and career-ready standards, and classes are still well-managed. This time, however, every student is empowered to assess himself or herself as a learner, experience autonomy and self-regulate while pursuing personalized learning.

Transitioning to personalized learning requires professional development in the implementation of UDL, but the shift is well worth the effort. The variability of our students is significant, our standards are rigorous and the need for students to be autonomous, self-regulated learners is imperative.

The groundwork has been laid and the value of UDL has been demonstrated. It is time for us to undertake this important work on a large scale.

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Katie Novak (right), shown modeling training on persistence for teachers, says students have choices to make about their own learning options in the Groton-Dunstable Regional School District in Groton, Mass.

(continued from page 32)

pose a barrier for some students. By instead presenting a lesson through a variety of modalities, media and materials, teachers can address differences in how learners perceive, interpret and understand information. The routine incorporation of digital, video, audio and imaging options provides broader access to key concepts and skills.

For example, a classroom setting can provide a variety of media to learn about a subject with students selecting the media that feel most comfortable for their learning needs. Students choose among multiple stations that include books to read, audio selections, text-to-speech reading of material and video. They can select more than one station, thereby gaining various perspectives on the same topic.

Although each student may do something different, the options enable all students to focus on the same learning target together and to enter the learning experience with confidence because they have been able to access and understand the material in a way that works for them.

Means of Engagement

Sparking students' interest is key to effective learning, yet each student may be motivated by different ways of engaging with the material. Choice and options are by their very nature motivational. Making individual choices about how to access information, what challenge level to take on and what medium to use to demonstrate understanding are effective ways to support a high level of investment and ownership of learning.

By offering many ways to connect with concepts, teachers both enrich the learning environment and enable students to choose how they want to interact with the content. Teachers can provide various entry points by planning instruction that builds in options for hands-on applications, simulations, puzzles and games, real-world problem-solving exercises, collaborative group activities or other avenues that enlist student participation and engagement.

Using these multiple options as a base for individual and group projects encourages students to explore the material in a variety of ways and is an effective strategy for addressing learner variability. Access to varied technology tools and applications further broadens the vehicles for that engagement. Given the freedom to choose how to interact with the material, students become more engaged in their learning and assume more responsibility for their learning.



Sheldon Berman checks on the learning of elementary school students in Eugene, Ore., where he previously was superintendent.

Means of Expression

We often assume that fairness demands all students express their understanding or be assessed the same way. However, to generate the most meaningful performance data, students should be encouraged to exhibit their learning in multiple ways and times. Allowing for such variability enhances students' understanding and engagement while providing richer data on the degree to which the curriculum and instruction are effective in supporting student learning.

One of the critical differences in the UDL approach is that scaffolding and supports are built into assessment to ensure the accuracy of the construct being assessed and to enhance students' ability to focus on the core task. For example, in an assessment of the main idea of a reading passage, providing supports such as text to speech, an online graphic organizer or integrated highlighting may enable students to accomplish the task successfully.

Similar supports have been incorporated into such summative assessments as the Smarter Balanced assessment of Common Core standards used by 18 states last spring. Smarter Balanced embedded into its assessment instrument "universal tools," such as a calculator, digital notepad, highlighter, glossary and spell check; "designated supports," such as a translator, text to speech, masking, color contrast and magnification; and "accommodations," such as braille, closed captioning and American Sign Language. New diagnostic

technology also enables students to experience ongoing self-monitoring with mastery-oriented feedback that promotes reflection and ownership.

Supporting Variability

With professional development and collegial support, teachers can — and often do — make adjustments to their instructional strategies. However, the cutting edge of UDL work is in the redesign of curriculum and materials to enhance their accessibility and flexibility. This is where technology can play a key role by embedding flexibility in how materials are accessed, how supports are provided and how the student and teacher measure progress.

Multimedia tools, simulations and animations provide multiple means of presenting material. Digital and online tools help us create scaffolding that enables students of all ability levels to fully access the concepts being taught — tools such as text to speech and speech to text; hyperlinked multimedia dictionaries and glossaries; links to background information and multimedia source material; embedded rubrics and exemplars; graphic organizers, checklists and integrated

highlighting; electronic notepads and interactive concept maps; and voice threads and onscreen coaching through animated hints.

In addition, a growing body of online analytics accompanies new curricula and charts progress in multiple dimensions, not just the correctness of answers — thereby providing sophisticated diagnostic information that can further refine our instructional effectiveness and targeted assistance.

As school districts adopt digital curriculum in one-to-one environments, we need to evaluate these materials against a new scale that measures the degree to which they are universally designed and offer multiple means of representation, engagement and expression, as well as a full array of supports for student success.

Reframing Teaching

Universal design for learning reframes the way we think about diversity in the classroom and enables teachers and schools to effectively reach and engage a far broader range of learners. The basic tenet of UDL is that all children can learn if we create multiple avenues of accessibility to the learning targets. Rather than seeing inability or disability in our students, we recognize natural variability.

Through UDL, customization and personalization are built into curriculum and instruction so that students can access the tools, strategies and supports they need to succeed. In this way, the UDL framework also helps address cultural and language differences and the achievement gap common to low-income students and students of color.

Though we have learned much about how to design accessible curriculum and instruction, we are still in the early stages of systemic transformation. A few states now extend leadership and support for embedding UDL in state policies and district practices.

As we select new materials, plan new instructional lessons and work with colleagues to provide the collective scaffolds necessary for student learning, we should ensure our choices and decisions embody the principles of universal design for learning. We need to seek out professional development that will develop UDL-related attitudes and aptitudes districtwide. And we need to become the architects and outspoken champions of classrooms, schools and districts where every student is offered effective on-ramps to positive engagement with a full curriculum and higher levels of achievement. ■

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Additional Resources

Readers seeking more detailed information about the universal design for learning and its application to K-12 education can access these resources:

Websites

► **CAST UDL Exchange**, <http://udl-exchange.cast.org>. A place to build and share resources, including lesson plans. Free registration provides access to other resources from CAST, such as UDL Book Builder, UDL Studio and Science Writer.

► **National UDL Center, or CAST** www.udlcenter.org. An all-purpose website, operated by a nonprofit organization, with tabs on implementation, policy, research and practice that also houses the UDL Guidelines and UDL Connect, a community of practice.

► **Universal Design for Learning: Theory and Practice**, <http://udltheorypractice.cast.org>. A multimedia, full-text edition is offered at no charge (free registration required), with more than 45 videos and extended references and notes.

Books

► *Design and Deliver: Planning and Teaching Using Universal Design for Learning* by Loui Lord Nelson, Brookes Publishing, 2012

► *Teaching Every Student in the Digital Age: Universal Design for Learning* by David H. Rose and Anne Meyer, ASCD, 2002

► *UDL Now! A Teacher's Monday-Morning Guide to Implementing the Common Core Standards Using Universal Design for Learning* by Katie Novak, CAST Professional Publishing, 2014

► *Universal Design for Learning: Theory and Practice* by Anne Meyer, David H. Rose and David Gordon, CAST Professional Publishing, 2014

► *Universal Design for Learning in the Classroom: Practical Applications* edited by Tracey E. Hall, Anne Meyer and David H. Rose, Guilford Press, 2012