In education, heated debates and discussion often arise from the following questions:

1. What is best, evidenced-based practice?
2. What are the most valid and appropriate ways to assess learning?
3. With classroom demographics changing and becoming increasingly more diverse, how do instructors meet learners’ varied needs?

Instructors across disciplines and age groups, from pre-kindergarten through higher education, discuss and research these questions regularly. Heavy emphasis on the third question, addressing increasing classroom diversity and learner needs, is prevalent in K-12 school systems. According to Burgstahler (2015), diversity in the classroom can take many forms, such as ability, disability, age, reading level, learning style, native language, socioeconomic status, race, ethnicity, and more. Over the past 20 years, as Universal Design principles became a focus of education, K-12 educators have continued to implement principles of Universal Design for Learning (UDL) in their practice as a means of addressing the ever-increasing diversity among learners. Higher education faces similar challenges and must continue to foster innovative learning environments. Given instructors have diverse backgrounds themselves, many having never received instruction on curriculum design or pedagogical approaches in education, the answers to the above questions may vary widely.

UNIVERSAL DESIGN FOR LEARNING - WHAT’S THAT?

As institutions of higher education become more aware of UDL and its importance in meeting the needs of diverse learners in the classroom, it is critical to acknowledge laws that support equal access. Multiple federal laws, such as the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973, the Assistive Technology Act of 1998, and the Higher Education Opportunity Act (HEOA) of 2008, exist to ensure equal access and appropriate supports for individuals who experience disabilities.

From the Higher Education Opportunity Act (HEOA) of 2008, the term Universal Design for Learning (or UDL) means a scientifically valid framework for guiding educational practice that:

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Universal Design for Learning

Scientific research on the brain and learning informs the UDL framework. The framework is comprised of the “affective networks,” “recognition networks,” and “strategic networks,” which support the “why,” “what,” and “how” of learning. Image courtesy of CAST (www.udlcenter.org).

1. provides flexibility in the ways information is presented, in the ways learners respond or demonstrate knowledge and skills, and in the ways learners are engaged; and
2. reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all learners, including learners with disabilities and learners who are limited English proficient.

Universal Design (UD) was initially coined by Ronald Mace, an architect. His goal was to establish usable and functional spaces for all people, not only the “average person” (Mace, Hardie, & Place, 1996). Since UD was introduced, it has been applied across a variety of sectors, such as continued work in physical spaces, UD of information technology, and UD for instruction (Burgstahler, 2012).

UD with a focus on instruction became Universal Design for Learning (UDL) and is deeply explored and researched by CAST (previously - but no longer - referred to as the Center for Applied and Special Technology), a nonprofit educational research and development organization based in Massachusetts. CAST maintains the National Center on Universal Design for Learning (udlguidelines.cast.org) website. This website offers general information about UDL, how to implement UDL principles across the age continuum, research, and provides connections and resources to a UDL community. CAST also shares foundational information and resources for institutes of higher education (udloncampus.cast.org) looking to implement UDL principles.

CAST (2012) emphasizes the variation in learning needs, preferences, and abilities of individuals and stresses the importance of the following three UDL guiding principles:

1. Multiple means of action and engagement (i.e., support goal development, monitor progress, offer multiple types of media to show understanding, support access to assistive technologies, and other tools).
2. Multiple means of representation (i.e., motivate through interest, build metacognitive skills, encourage collaboration, and involve learners in their learning).
3. Multiple means of action and expression (i.e., build metacognitive skills, encourage collaboration, and involve learners in their learning).

Universal Design for learning (UDL) and Differentiated Instruction (DI) are two separate frameworks for instruction, yet they are often misunderstood or used interchangeably. It is easy to get overwhelmed thinking about meeting various learner needs in a course with hundreds of learners if you are equating that with providing each learner a separate assignment. Fortunately, that is not at all what UDL proposes - UDL should offer the chance for learners to take ownership of their own learning and figure out how they can best retain, make use of, and share information.

Traditionally, DI follows more of an accommodation style framework. Assignments and assessments are catered to the strengths and needs of each learner. It is heavily instructor reliant and does not provide much opportunity for the learner to take charge. On the flip side, UDL-based instruction provides various options to engage with curriculum and demonstrate application for these three principles in practice. Instructors may attempt to follow these principles as best as they can, but difficulties arise when lecture-style courses are the norm and class sizes increase. Although learners who decide to disclose their documented disability are often supported with accommodations through a learner support service (whether it be Disability Services or a similar office by a different name), this does not address the needs of learners who choose not to disclose, have an undiagnosed disability, are English language learners, or other circumstances that contribute to increased classroom diversity. The intention of UDL is to provide an equitable and varied learning environment that allows learners to access education and curriculum without the need to call out learning differences, challenges, or potential obstacles. One consistent challenge in higher education with regards to UDL, however, tends to be a misunderstanding about the difference between UDL and Differentiated Instruction (DI).
knowledge. Learners take charge of the way in which they choose to represent what they know from a variety of options, making it more learner-centered.

Katie Novak (2017), an Educational Consultant with a focus on UDL, explains the difference between UDL and DI with "The Dinner Party Analogy". She asks instructors to think about a classroom as though it is a dinner party, with the instructor as the host. When inviting many people over for dinner, it is likely there is diversity in food preferences among the guests. Is it reasonable to create a separate meal for each attendee based on dietary need or preference, specifically crafted by the host? Or, would it be better to provide a buffet of options that address a variety of dietary needs and preference, allowing each attendee to create their own plate? In order to stay sane, enjoy the meal, and please the majority of guests, a buffet makes the most sense for a large group. The exact same idea holds true for instruction. DI would require an instructor-directed (dinner party host) approach to learning, providing each learner with their own lesson (individual meal). This is unrealistic in large-group, general education environments. Instead, a UDL or learner-centered (dinner party attendee) approach would meet varied learning needs and allow individuals to choose from an array of options (buffet) offered by the instructor (dinner party host), which encourages self-directed and personalized-learning. To see more success with UDL framework implementation in higher education classrooms, this distinction between UDL and DI needs to be clearly described. UDL is much less overwhelming than it is often thought to be!

**THE ROLE OF ACCESSIBLE EDUCATIONAL/INSTRUCTIONAL MATERIALS AND ASSISTIVE TECHNOLOGY IN UDL**

Institutions of higher education have an opportunity to lead the charge in terms of creating accessible environments for learners, staff, and faculty. This is particularly important since many staff and faculty are responsible for educating future instructors, whether it be for the K-12 environment or post-secondary. One of the greatest barriers in the classroom is a lack of accessible educational and instructional materials (AEM/AIM). This severely hinders access to course information and learning, particularly for individuals who use assistive technology to access course materials. UDL is often misunderstood as interchangeable with AEM/AIM. This is not the case, as creating AEM/AIM is one component of UDL. UDL, as outlined previously in this article, is much more than the creation of AEM/AIM.

That being said, AEM/AIM as a component of UDL is critical to ensuring student access to course materials. When considering materials for a course - such as course syllabi, textbooks, manipulatives, handouts, readings, Learning Management Systems, websites, multimedia, and more - the instructor must also consider various access points for the material. How would they render to an individual with blindness/low vision using a screen reader or magnification tool? Someone who is deaf or hard-of-hearing? Someone with a cognitive or language-based learning need? Someone with a physical mobility difference? Someone who is learning English as a second language? There are many factors to consider, but it is much easier to ensure course materials are accessible from the get-go. Retroactively designing for accessibility (reactively versus proactively) is a recipe for disaster, causing more frustration than keeping accessibility in mind throughout the entirety of the course design.

For instructors reading this who are worried about the accessibility of their already developed course content and materials, it is important to know there is no quick fix. Reach out to the Disability Services office (or equivalent) to ask for help. Start small by creating a priority list to address main concerns, such as ensuring course textbooks and exams are accessible to a variety of learners. On the flip side, it can also be challenging to ensure accessibility of content and materials learners submit for review (by the instructor, teaching assistant, and/or their
To address this concern, consider making accessibility principles a component of the grading structure (as a whole or on a rubric for individual assignments). This will not only address concerns with submitted material, but it offers an opportunity to teach students a new skill and the importance of creating accessible materials for all. A course is not only made up of the materials an instructor provides, but also the incredible work learners contribute—all of which falls under the framework for UDL.

**DIVERSE LEARNERS INTRODUCED**

According to the National Center for Education Statistics (2016), approximately 11 percent of undergraduate learners (across gender) experience and disclose a disability. As age brackets increase, percentages of students who disclose having a disability increases as well. In addition to age, learners who are veterans also disclose having a disability at a higher percentage. The National Center for Education Statistics (2016) provides more in-depth information about distance and online learners, showing the largest percentage are over the age of 30, attend exclusively part-time, and hold a job while taking courses. It’s important to understand learner demographics, regardless of whether they attend classes on campus or online.

Consideration for learner diversity in the classroom, such as in the area of disability, is a driving force for applying UDL as a framework for instruction. At institutions of higher education, many learners attend classes on campus in a more traditional format. As the demand for more widespread access to higher education increases, coupled with the need for affordable and flexible learning, online education has flourished. The difference in physical “space” is important to consider when applying UDL principles. On campus and online instructors face similar challenges in meeting the needs of diverse learners, but the way in which learner needs are met may be slightly different. Take online learners, for example—we know many of these learners are returning to school after a hiatus for various reasons such as to work, raise families, or both. Lisa Modenos, instructor at the University of Massachusetts Amherst stated, “I have learned from this job that so many adult learners deal with anxieties about education and college—they have a lot of baggage about the past and their assumed abilities, and that baggage weighs them down a lot. So much of what we do…is help learners process their past experiences and have them let go of some of that baggage.” Essentially, education may only be one facet of a learner’s day to day experiences.

Below, two case studies are provided that look at post-secondary education through the lens of a learner and instructor in both on campus and online environments.

**CASE STUDY #1: ON CAMPUS LEARNER**

**Meet Fey. Source**

**MEET FEY**

Fey is an 18 year old young adult. She was accepted to a large liberal arts college. Fey has a particular talent for the arts and has always been an active part of her community, teaching summer painting and pottery classes to school-aged children, as well as running an art club at a summer camp for preschool and kindergarten learners. At college, she majors in fine arts, with a focus on pottery.

Prior to being accepted to college and deciding to enroll, she was supported by her special education team in high school. Fey has both dyslexia and a degenerative vision condition, which impact how she accesses school curriculum. She received her first individualized education plan (IEP) in third grade after educational testing identified her reading difficulties in the absence of an intellectual disability. At that time, she was identified with a Specific Learning Disability (SLD) in the areas of foundational reading skills, reading fluency, and reading comprehension. Fey’s degenerative vision condition was identified in 7th grade when she began losing peripheral vision.

Throughout Fey’s public school career, she received explicit, systemic instruction by a reading specialist to aid in building strong foundational reading skills. Fey also received support from a teacher of the visually impaired (TVI) and special educator/case manager. Once she reached high school, she started working with a transition counselor to begin planning for life after high school. Fey knew she wanted to attend school with a focus on fine arts. The transition counselor worked with Fey on understanding her rights as a learner with a disability and how responsibility shifts in terms of obtaining accommodations in a post-secondary setting. Much of their time together focused on educating Fey about the nature of her disability, her strengths and needs as a learner, and building self-advocacy skills.

**LEARNER PERSPECTIVE**

As a sophomore in college, Fey details some of her successes and challenges below.

> It wasn’t that I thought college would be easy, but I knew I had the drive and desire to do well. The first year was the most difficult. Now that I’m halfway through my sophomore year, I feel a bit more settled and have a better understanding about the process of disclosing my disability, as well as accommodations I receive, and how I may need to advocate more for myself in some classes over others.

Overall, my major-related coursework has been a bright spot in some of my darker days in college. My deep interest in the material, combined with the hands-on focus of the program, has naturally catered to my needs as a learner without requiring extensive accommodations or support. I am currently thinking about combining my fine arts major with an education major, as well.

The college I attend provides me with free assistive technology tools while I am a learner, which is critical as being a learner is not a lucrative endeavor. Assistive Technology is incredibly helpful in terms of coursework, as I need quite a few tools to access my readings, course websites, handouts,
and more. I primarily use magnification, text-to-speech, and speech-to-text tools. Since my vision continues to worsen, I am learning screen reader technology to aid me in navigating computers and mobile devices.

Despite these successes, it has not all been easy. Some instructors are more understanding than others. I am more comfortable discussing my needs with instructors I know well, such as those from my program/major. During my second semester of freshman year, I experienced a particularly challenging circumstance in a women's studies course I had to take to fulfill certain general education requirements. I was excited at the prospect of taking the course, but it proved to be incredibly challenging.

The women's studies course took place weekly in a large lecture hall. There were approximately 300 learners in the course. Due to the size of the class, the locations available on campus were minimal. The space consisted of auditorium seating, quite a distance from the instructor at the front of the room. The classroom was, however, equipped with a lot of technology, as well as both whiteboards and chalkboards. This particular instructor mentioned early on in the semester she "didn't believe in technology in replacing handwriting", causing her to write extensively on the chalkboards and whiteboards during class, as well as encouraging learners to do the same by leaving their technology behind. She failed to use the equipment provided in the room aside from PowerPoint slides, which she uploaded after the class was completed each week. Most difficult was the course readings. They were uploaded to the course website as inaccessible PDFs, as the instructor photocopied them herself and did not think to create cleaner copies and save them in a format that could be read using assistive technologies. This set me back significantly in terms of my course work and participation, as I had to wait for Disability Services to provide me with alternate, accessible versions of the readings.

Although I continued to communicate my needs to my instructor, I was worried she perceived me as "lazy" or "making excuses". I desperately wanted to be an avid participant and to show I was a diligent learner, but it proved difficult given the circumstances. Even with my accommodations and strong self-advocacy skills, I became anxious and concerned my knowledge and investment was not coming through. It was the closest I felt to failure during my time in college thus far, despite knowing this is not who I am.

INSTRUCTOR PERSPECTIVE

The particular instructor Fey references above, Dr. Mariah Wilson [name changed], has taught in higher education for over 20 years. She prides herself on the courses she has worked hard to design. In response to the challenges Fey experienced above, Dr. Wilson sought support from the college's Center for Teaching Excellence and Development in partnership with Disability Services. Dr. Wilson became a Universal Design for Learning fellow as part of a pilot program in an attempt to learn more about how to meet the needs of diverse learners in her ever-growing courses. Dr. Wilson's perspective and experiences are outlined below.

It is never my intention to ignore the diversity of the learners in my classes. As the learners in my classes grow in number, I find it increasingly more difficult to meet everyone's needs. I find myself struggling to keep track of and explore options and innovative ideas as I continue developing the strongest course evaluation reviews than I had in my prior 20 years of teaching. Although I have a long way to go, particularly in terms of how best to assess learning. I now have a community of faculty spread throughout campus (as well as support from the Center for Teaching Excellence and Development and Disability Services) to bounce ideas off of and explore options and innovative ideas as I continue developing my courses.

I learn the most from my learners. I want them to feel heard and successful. I know what I am working on is not perfect and not always easy, but it's a start. My courses become more powerful each semester. I am now exploring ways to embed accessibility requirements into coursework learners share as a way to educate them on the importance of Universal Design. Working in higher education and educating potential future educators, I feel it is my duty to share this knowledge with anyone who will listen.

Some changes I made not only supported learners with disabilities, but were changes that benefited all learners and allowed for more personalized learning, even in a course of 300 or more. A few of these changes are outlined below.

- **Establish a flipped classroom with small seminars:** Instead of a once a week (in person) two and a half hour course, I established one and a half hour, weekly (in person) seminars on various days throughout the week. These were primarily run by Teaching Assistants (TAs), with my consistent support and guidance. Prior to the seminars, which were no more than 30 learners, I provided my lectures as audio/video recordings on the course website. Information from these lectures was discussed and explored during seminar. Having a smaller group allowed for more personalized learning, deeper discussions, and hands-on group and partnered work. This type of instructional practice ended up supporting my learners in meeting course learning objectives in a more meaningful way.

- **Create accessible educational and instructional materials:** One of the reasons I appreciated being a UDL fellow was the introduction to topics I never even considered. I had no idea about assistive technologies. I also had no idea how my inaccessible photocopies of articles or textbooks provided undue stress to individuals who were trying to access them with screen readers or text-to-speech tools. I became educated on creating accessible documents in Word, PowerPoint, Excel, and more. I also began to understand how the materials I use in class (or require learners to use) may need to be provided in a few different ways. Reading an article is not the only way to gain knowledge. Videos, audio, and in-person experiences (such as visiting special collections and archives in the library) can support learning, as well. Options, options, options!

- **Alter the presentation of content and materials:** Since I was providing recorded lectures, it was important for me to prepare my script. This made it easier to add closed captions to my lectures and allowed me to offer better descriptions. I learned about the importance of being more descriptive for both my recorded and in person lectures. If I write something on the board, it's important I state what I am writing or drawing out loud. If I am showing an object, I need to describe that object. These simple changes can completely impact a learner's experience in the course.

- **Build a community:** Although I had made many other large and small changes, these had a significant impact on learning. I received some of the strongest course evaluation reviews than I had in my prior 20 years of teaching. Although I have a long way to go, particularly in terms of how best to assess learning. I now have a community of faculty spread throughout campus (as well as support from the Center for Teaching Excellence and Development and Disability Services) to bounce ideas off of and explore options and innovative ideas as I continue developing my courses.
Meet Jim

Jim is a 38 year old father of two young children. He loves building elaborate train tracks and block cities with them. Their summers are filled with forts and sand castles. In high school Jim was always good with numbers and was intrigued by how mechanisms worked. One of his fondest memories is taking apart a broken thermostat. He saved the gears and springs, hoping to one day build something with them, but they just sat on a shelf gathering dust. Back then he dreamed of going into engineering. In high school Jim was never the top learner, but got decent grades. Starting in 7th grade, he received help to stay focused and complete homework assignments, as well as an accommodation for extended time on tests. He hated being pulled out of the main classroom to complete work. He would miss out on group projects because he was working with the special education teacher in the resource room. Some kids taunted him and said it wasn’t fair that he received extra help. Jim’s friends were just being curious when they asked about the “other room”, but Jim never wanted to talk about it.

Jim first started an undergraduate degree straight out of high school at the local state university. At university he wanted to prove to his parents (and himself) that he could go it alone. He loaded his schedule with science courses. He loved the lab component where he could see how things worked, but struggled to submit the required lab reports. Problem sets were even worse. He never knew where to begin and how to show his work. As the semester progressed he found himself cramming for exams and pulling all-nighters to finish assignments. His grades slipped, and he decided to not return after his first summer. He moved back home, and worked multiple minimum wage jobs.

Now Jim works nights at an automotive parts supply warehouse. He dreams of the day when his work schedule will align better with that of his family. His supervisor has told him that he could be promoted to a day shift with more responsibility, but that position requires a bachelor’s degree. Jim has been accepted into an online degree completion program that provides extensive learner advising and gives credit for work experience.

LEARNER PERSPECTIVE

Jim has just completed his first semester as an online learner. He describes some of his successes and challenges below.

I was terrified of coming back to school. All I could think of was how poorly I did the first time around. My family support was amazing! My kids made me study snacks and my wife made sure I had quiet time on the weekends to do my work. Everyone is looking forward to when I no longer have to work nights.

My advisor, Dr. Laura Hart, reached out to me before the semester started. We talked for two hours about my past experiences and the study strategies I would need to put into place to succeed. She would also be the instructor for my first class. Having someone who believed in me felt so good. We decided that I would focus on just one class in my first semester, and she would help me keep track of deadlines.

Even with Dr. Hart’s help, taking the online class was really hard. I tried to answer discussion posts on my phone during breaks at work, but would become distracted by social media. By the time I came back to it at home, I forgot what I was going to write. I learned to set strict schoolwork time slots. I miss the time watching TV on the couch with my wife, but my degree goal is worth it.

Since I received extra help in high school, Dr. Hart suggested I get in touch with the Office for Learners with Disabilities. I will likely need double time on exams in the science classes I hope to take. I no longer have any paperwork from my high school days, and my condition wasn’t medical, so I was skeptical. The Office for Learners with Disabilities was able to grant me a scholarship to be evaluated for learning disabilities and I am now in the process of scheduling appointments.

I was really anxious about writing my first paper as an online learner. I was far from campus and my local public library is tiny. My university library had videos on how to search databases to find the information I needed. I used eBooks and downloaded articles, and they even sent me one book by mail. The Office for Learners with Disabilities recommended that I convert the articles to MP3 files using campus-owned assistive technology. This way I would listen to the article while I drove to and from work. Then at home, I would read it again, but was able to better pick out the sections that were relevant to my paper.

I know that not all of my instructors will provide as much guidance as Dr. Hart, but she will still be my advisor and I am hoping to receive further assistance from the Office for Learners with Disabilities.

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INSTRUCTOR PERSPECTIVE

Dr. Laura Hart [name changed] has been teaching in a fully online bachelor degree completion program for seven years. In this role, Dr. Hart is both an instructor and an advisor for her learners. She connects with her learners on a professional and a personal level, as she herself was a non-traditional learner. She came to higher education only in her late twenties as the first person in her family to go to college. She loves the collaborative nature of teaching learners who are “like her”. Dr. Hart understands the challenges her learners face, coming back to higher education after years, or possibly decades, out of school. She sought pedagogical help from the eLearning group on her campus to learn about Universal Design as it applies to her Learning Management System, participated in an instructional innovation symposium, and a symposium specific to working with diverse learners. Dr. Hart’s perspective and experiences are outlined below.

The learners whom I teach are a unique population. Many of them come to my classes with extensive baggage of past learning experiences. My first task is to help them unload that baggage so they can move forward in their studies. I am inspired by the courage of learners like Jim to come back to school. He had a clear goal but needed substantial help with time management and prioritization of work. Most of my learners have never seen an online course before and equate online with web browsing. I put a lot of effort into setting clear expectations for course work and use of technology. Over the years, I have made adjustments to my courses which are outlined below.

- Establish straightforward navigation: Many of my older learners are not comfortable with technology. I try to keep navigation clean and consistent. Each week follows the same structure so learners know what they need to be working on at any given point in time. Course menu links also allow learners to navigate directly to an assignment, discussion, or course group. I ease them into the online environment with a welcome video that is available the week before the term begins. The video explains how to sign into the course, shows where to find content, and goes over the syllabus.

- Scaffold technology use: I give learners opportunities to practice using a particular tool before they have to submit graded work. For example, learners introduce themselves in a discussion forum before replying to content-based prompts. I also see it as an opportunity to show learners tools they may see in future courses. I always allow multiple attempts for submitting written work. That
**BRINGING IT ALL TOGETHER**

In the end, UDL is designed to support both instructors and learners in meeting a common goal: increase knowledge outcomes and generalization of knowledge for greater good. The UDL framework is intended to support instructors with course design, not hinder the learning process. Similarly to how instructors support metacognitive skills and growth in students, they too can benefit from reflecting and “checking in” with one’s own practice. Loui Lord Nelson (2014) provides a set of steps to self-assess UDL implementation over time:

1. **Reflect** on the needs of your students. “What are my students struggling with?”
2. **Identify** a principle or checkpoint that addresses that need. “How might I use this checkpoint to meet the needs of my learners?”
3. **Investigate** and create new methods or strategies. “What brings this principle or checkpoint to life?”
4. **Teach** a lesson using the new method or strategy. “What does this principle or checkpoint look like in my teaching environment?”
5. **Assess** the new method or strategy. “In what ways did my students demonstrate knowledge or skills?”
6. **Reflect** on how the new method or strategy worked. “How did the principle or checkpoint enhance my students’ outcomes?”

Research continues to grow with regards to UDL and higher education. Universities, such as the University of Washington’s Center for Universal Design in Higher Education, prioritize UDL as an instructional framework in their campus learning environments. Despite this push in the UDL direction, there is still room for improvement and more in-depth research on global learning outcomes when UDL is implemented in higher education on a larger scale across varied disciplines. From anecdotal and qualitative information provided by colleges and universities creating initiatives and implementing UDL on small or large scales (UDL on Campus, n.d.), instructors can benefit from the following first steps:

- **Find a community of practice**: Working with other instructors, whether they are teaching the same discipline or not, can keep engagement and motivation high. Share best practices and support each other through challenging teaching situations.
- **Come back to learning objectives/ outcomes**: Focus on the “what”, rather than the “how” of education. Provide choice, and work together with learners to pick the best deliverable that will demonstrate mastery.
- **Consider creative ways to use learners/staff to support workload**: Student employees can help with video captioning and creating transcripts. Teach UDL principles in classes by making accessibility part of the requirement of submitted work through overall grading structure or individual assignment rubrics. This is not only an educational opportunity for learners, but contributes to the success of UDL throughout an entire course, not only the instructor-driven side.
- **Reduce learner anxiety**: Lowering the stakes for any one assignment, breaking large assignments into smaller segments, keeping learners focused on one task at a time, and providing content that is accessible in multiple modalities encourages student learning and success. Many students, regardless of ability or disability, continue to develop basic skills around prioritizing, managing time, and assignment completion. These steps provide structure and encour-

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way if a learner selects the wrong file, they can upload the right one without my having to reset the assignment. They save face and I save time: win-win!

- **Chunk content**: I noticed learners have a hard time transitioning from one assignment to the next when they have several concurrent projects. I guide them toward a sense of accomplishment by setting small, attainable assignment goals. My weekly discussions have a clear start and end date. Once a discussion ends, learners can still review past material, but they can no longer submit more posts, guiding them to the next assignment. Some of my discussions use the Learning Management System’s “Groups” tool to contain the number of posts and focus learner engagement. Large research papers are broken down into multiple deliverables that lead up to the final product. Learners complete discrete tasks such as submitting a preliminary bibliography, paper outline, and introduction before writing the complete work. Learners also go through draft revisions with both instructor and peer reviews. Each component is assigned its own grade, lowering the stakes of any one assignment.

- **Allow flexibility**: I understand the challenges of balancing studies, work, and personal life. Flexibility is my educational mantra. I discuss schedules with all of my learners. If someone has a hard week, I will readily provide an extension. For me, it’s about learners reaching their goals, not strict enforcement of due dates. I am also flexible with the format of learner assignments. For some learners, a term “paper” may be a PowerPoint with typed notes or recorded narration.

- **Incorporate accessible multimedia**: I use videos to show learners how to interact with the Learning Management System and remind them of course requirements for each week. I create videos using automatic captioning as the first pass. I then edit the captioning to correct for my New York accent and ensure that the captions capture the same nuances and tone as my speech. Since it is such a slow process, I started out with just one or two videos, and have built out my library over the years to have one video for each week of content. As I update my content, I will begin to refresh videos.

I love the collaborative nature of adult education. With the course modifications I have made, I see how it benefits my learners, and they thank me for it. It has now been years since I had a learner ask me where to find an assignment. Learners are also having a much easier time staying on track with only one assignment due at a time. Learners choose our online program because it fits with their life and learning needs and I am happy to maximize that flexibility to help them meet their goals.
age the meaningful development of study skills.

- **Offer a “buffet” of learning options:** Meet learner diversity with instructional choices rather than differentiated instruction. It is important to understand the “why” of an assignment. What is the anticipated learning outcome? Why is it important? Don’t make the assignment just work, make it meaningful work.

An instructor’s viewpoint is not the only one that matters in terms of UDL. A learner’s perspective is critical to successful outcomes. In order for a learner to access the curriculum in a meaningful way allowing for successful, effective, and efficient access to their coursework, both on campus and online learners can benefit from the following:

- **Connect to Disability Services (or equivalent support on campus):** Choosing to disclose a disability can be a difficult decision for learners. However, Disability Services (or equivalent support on campus) can provide supports in terms of advocacy and accommodations. Having this protection helps to ensure an individual’s rights are being respected and provides a more level playing field in terms of accessing curriculum. Contacting Disability Services is a great place to start.

- **Understand and explore strengths and areas of need as a learner:** Advocating for one’s own academic needs is important in the world of higher education. Knowing one’s strengths and needs allows the learner to take better control of their learning by developing appropriate study skills, finding supports and activities on campus, and figuring out how best to show knowledge and understanding.

- **Build and exercise self-advocacy skills:** Being able to understand the nature of disability and how it impacts learning is only the beginning. It is important to also be able to verbalize strengths and needs to others, such as Disability Services, instructors, and peers, to obtain appropriate supports and necessary accommodations. Not everyone will understand how a disability may impact academics. Sometimes it will be important to provide awareness and educate others.

- **Explore tools, such as assistive technologies, to support learning:** Many institutions of higher education provide learning tools to active students. Assistive technologies, otherwise known as low-tech, mid-tech, or high-tech tools to support learning, may also be available. Some institutions provide these supports at no additional cost to the student. Making use of these tools and supports can positively impact academics, particularly in the area(s) of organization, studying, researching, reading, and/or writing.

- **Research and utilize campus resources:** Disability Services (or equivalent support) is only one campus resource. It can be helpful to find out what else is available, such as a writing center, counseling services, tutoring, mentoring, and more. Explore these options to find out what combination might work best to meet academic needs and goals.
So, why is UDL important? UDL is a framework that provides instructors with an effective, efficient, and meaningful way to approach classroom learning with student diversity in mind. It does not dictate curriculum and allows for learners to work in conjunction with instructors to take hold of their education in innovative ways. It is important to start small, keep learning outcomes and goals in mind, and recognize “Rome was not built in a day” (but it was built). Build communities, be persistent and engaged, and turn challenges or frustrations into learning opportunities. Remember, in the words of the well known human rights activist and lawyer Elise Roy, “When we design for disability, we all benefit”.

REFERENCES


