Universal Design for Learning

As we work towards a more inclusive education system, the learners in the general classroom have diverse needs, interests, and learning styles. As teachers, we need to be able to scaffold and differentiate our teaching to meet the needs of each of these students. Digital technologies provide us with the opportunity to allow students to access learning, regardless of their ability. It allows for students to be engaged in what they are learning. It allows for students to share their learning in the format that fits their learning style. Universal Design for Learning provides more personalized learning for the students in our classrooms.

Engaging with Learning Goals, Learning Tasks and Learning Materials

Dr. Paul Yellin explains very clearly the reasoning behind providing students with the supports they need, and why these supports should not be seen as a "crutch". As people, we all have strengths and weaknesses. It is important to understand what our strengths and weaknesses are, so we can use our strengths, and work on our weaknesses. This makes me think of students who struggle in one area, and then have the perception that they aren't smart. We need to encourage our students to recognize what they're good at and what they find challenging, and discover the tools they need to be successful.

As teachers, it is important to be specific about what a given assignment or activity is focusing on. If students are responding to an article they read, is the focus of the assignment to critically think about what they read, or is it about the writing process? Dr. Yellin mentions that we need to consider when students are using a disproportionate amount of their resources on something that should be automatic, such as writing or typing. If that's the case, then we should provide students with the tools they need, such as a talk to text program in this example, to engage with the true goal of the assignment. This way, students are developing the skills the assignment is focusing on, rather than being caught up in the writing process. These skills such as writing can be developed at a different time. We need to put boundaries on what we're having a student work on, and provide the support they need to engage in the activity.

Examples of doing this:

- Having a struggling reader use Google read&write to have a science article read to them so they can engage in the classroom discussion
- Having a student who struggles with written output use talk-to-text to write a reading response on a novel they're reading
- Using an online dictionary when working on a writing task

Representing Learning Materials and Information to Learners

Using one teaching technique will not reach all of the diverse learners in our classroom. Universal Design for Learning addresses that we need to present material in a variety of ways to maximize understanding. "Variability derives from a multiplicity of factors including biology, family context, cultural background, history with schooling, socioeconomic status, moment-to-moment internal and external changes, and, most importantly, the context in which the learner is functioning" (Meyer et al., 2014). Presenting material in a variety of ways allows for more students to be engaged in the learning materials.

Examples of doing this using digital technology:

- Sharing notes on a PowerPoint slide with text, images and videos
- Using online math manipulatives (http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html)
- Using a Smartboard or digital game (Quizizz, Escape Room, Quizlet etc.) to reinforce material
- Watching a video or listening to an audiobook
- Recording instructional videos for students to watch at their own pace

- Using online discussion boards so students can engage in discussions and conversations with their peers (ex: Padlet https://padlet.com/)

Showing and Demonstrating what has Been Learned

Providing students with choice in how they share their learning can increase their engagement and allow for them to utilise their strengths. This also teaches students to set achievable goals and consider their personal interests and strengths. Using technology allows for numerous methods of expression.

Examples of demonstrating learning using technology:

- Providing students with the choice to share their learning through videos or audio files

- Using programs such as *Pixton* or *Storybird* to write a story rather than only writing by hand.

- Using *Powtoon*, *Google Slides* or *Prezi* to present information

At the beginning, it can take lots of structure to teach students how to make choices that are appropriate for themselves. I found that with clear expectations and guidelines, students used their creativity to produce projects and assignments that they were proud of and that went well beyond what they would have produced had they been given only one option to share their learning.

Concluding Thoughts

Using technology provides many new and innovative ways for us to engage and support our learners. When used appropriately, technology help differentiate and personalize learning.

Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. Wakefield, Massachusetts: CAST Professional Publishing.