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**Universal Design in Learning:**

**Creating Access for Students**

**who are Deaf and Hard of Hearing**

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What is Universal Design for Learning?

Universal Design is about creating access to places and things. For example speaker phones, curb cuts, and closed-captioning.

Universal Design for learning is about creating intellectual access. For example cognitive access through audio books for an individual who has a learning disability or providing physical access through the use of a scribe to a person who can’t use his/her hands to take notes.

The following website contains additional information: http://www.cast.org/udl/faq/index.html

If I were to ask you to describe a classroom many of you would envision a room with desks and a board at the front. This is the type of classroom most of us grew up in. And even though today’s classroom may not even be a physical room most of our teaching strategies default to our “typical” classroom setting.

In the traditional classroom an instructor stands at the front of the room and imparts knowledge to the students. There may be question and answer portions. There may be visuals used. But classic lecture style is the tradition.

Research shows that about 65% of the population is visual learners, 30% are auditory learners, and 5 % are kinesthetic learners. However, everyone has a unique learning style and is usually a combination of all three. So why are college classrooms still using a teaching method that focuses only 30% of the population?

A quote from the CAST Universal Design for Learning website (http://www.cast.org/udl/faq/index.html) provides some insight:

In most classrooms, the curriculum is disabled. It is disabled because its main components—the goals, materials, methods, and assessments—are too rigid and inflexible to meet the needs of diverse learners, especially those with disabilities. Most of the present ways to remediate the curriculum’s disabilities—teacher-made workarounds and modifications, alternative placements etc.—are expensive, inefficient, and often ineffective for learning.

Studies show we retain approximately 10 percent of what we see; 30 to 40 percent of what we see and hear; and 90 percent of what we see, hear, and do. We all have the capability to learn via all three styles, but are usually dominate in one. (https://www.nhi.fhwa.dot.gov/downloads/freebies/172/PR%20Pre-course%20Reading%20Assignment.pdf)

When we create classrooms that provide information in a variety of formats and through various methods we not only make the class more accessible we enhance learning for everyone.

In 4450 BC, Confucius said, “Tell me and I will forget. Show me and I may remember. Involve me and I will understand.”

So the concept of using multiple senses to enhance learning is not new. And yet, few instructors embrace the philosophy on a consistent basis.

So what really makes a classroom inaccessible? Is it the physical barriers? Is it the intellectual barriers? No it is allowing only one way to reach a goal.

It may sound good to say there is only one right answer and only one way to get there. In reality there are usually several ways to arrive at the “right” answer. It is just easier for a teacher to teach and grade if everyone does it the same way. But this is not the best way for students to learn or the most effective.

Do you remember when you were learning math in elementary school? Did your teachers count off if you didn’t work the problem the way they had shown you, even if you got the right answer?

When we set up just one way of doing something that means we are excluding someone, because one size will never fit all. Sometimes we are simply making it more difficult to achieve. For example I’m short so when things are stored on a top shelf I can’t reach them. But I can use a ladder or I can ask someone taller to get it for me. Sometimes we make it impossible. If you tell me I can’t use tools or others to help then it will be impossible for me to ever reach that top shelf.

When developing classroom activities and assignment it is important to always ask, “What is my overall learning goal?” Often the process becomes more important than the end goal. When we set out on a trip we can look at a map and see that there are many routes we can take. We can even change our route in the middle of the trip. The same is true for achieving learning goals. The path we take is not as important as the fact that we learn the information.

**Lesson Learned**: New technology doesn’t necessarily mean improved access.

Example: Silent films begin in 1895. These were fully accessible to D/HH individuals because any dialogue was in written form.

In 1927 the first “talkie” was released. This revolutionized the film industry but made movies totally inaccessible to D/HH individuals.

It was not until 1972 that the first open captions appeared on TV, the French Chef on PBS. But these were not well received by hearing viewers and soon closed captions were developed, and approved by the FCC in 1976.

In 1980 15 hours a week of TV programming was captioned.

Television Decoder Circuitry Act of 1990, ensured that televisions would have a built in closed caption decoder.

Today D/HH individuals still don’t have full access to movies on the big screen. Few theatres show captioned movies and when they do it is only for select showings.

Compare 32 years of silent movie access to 45 years of NO access and then only limited access after that.

**Lesson Learned**: Access for one may not be access for all.

Example: A curb cut makes a sidewalk accessible to individuals in wheel chairs. But if done incorrectly these same curb cuts can become dangerous for individuals who are blind. Adding a tactile surface to the curb cut makes it accessible to one disability group while preventing a hazard to another group. We should always keep in mind all learners to ensure we don’t allow access to one group and at the same time cut off access to another.

**Lesson Learned**: Separate but equal isn’t always equal.

Example: Whenever possible we want to make sure that access doesn’t separate groups because this can lead to disparate learning opportunities. When additional time on a test is provided as an accommodation the student should be allowed to be in the same room or area as other students. If the student receiving the accommodation is sent to an alternative testing site s/he loses the ability to ask the instructor questions.

**Lesson Learned**: Don’t just believe what they tell you, test it out.

Example: New software and technology will always be advertised as accessible but you need to make sure it is accessible to your students in your specific situation. YouTube has developed automatic captioning software, and many schools and professors try to use it as cheap way to accessibility. However, the technology of automatic speech recognition is not good enough at this time to create acceptable captions. This “wonderful” solution is actually creating more problems than it is solving.

**Lesson Learned**: Sometimes what we have “always” done isn’t the best solution.

Example: Always be willing to review and revise classrooms and curriculum. We can get stuck in the rut of thinking “this is how we’ve always done it” and we don’t look at different approaches, which could be more effective.

Do we really want an Extreme Makeover?

If we don’t design curriculums with flexibility in mind then making them accessible will require major changes and sometimes starting over from scratch. Studies show that retro fiting a class for accessibility can increase the cost by 5 to 10%.

What can make a learning environment inaccessible for an individual who is deaf or hard of hearing?

Inaccessible classes and materials are frustrating for everyone. It is like looking at the keys in a locked car. The information is so close and yet still out of reach.

Problem: Time limits on tests and in class assignments are standard. Individuals who are deaf and hard of hearing may require extra time to process the written word.

Solution: Consider creating untimed tests for online classes and allowing extra time for in class tests. Studies show that providing extended time on tests only benefits those who need it. Students without disabilities do not show significant improvement on scores but students with disabilities do.

Problem: Uncaptioned media is totally inaccessible to an individual who is deaf. Poorly captioned media can be even worse since it can provide faulty information.

Solution: All media shown in the classroom should contain high quality captions. This makes it accessible to those with a hearing loss, English second language learners, and all students.

Problem: Extensive reading requirements. Many individuals who have a hearing loss experience delays in learning language as a result they may struggle with written English. This means they often require more time to process the written word. In a traditional classroom this means extra study time to read the text book. In an online class it can mean significantly more time when most of the communication is in text format and other students may not use correct grammar. Just because a class is all text does not make it accessible.

Solution: Texts that are written at a lower reading level may be more accessible. Information conveyed through an interpreter can be more engaging for an individual whose first language is sign language.

Problem: Students who are deaf and hard of hearing may not have great written English skills. If a class requires extensive writing it will require more time for the student and correct grammar may be a struggle for them.

Solution: Consider whether exact grammar is an essential function of the class. Could the student communicate their knowledge in a method other than writing? For example through a sign language interpreter or through demonstration.

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