Breaking Down Barriers to Learning with UDL, AT and AEM

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Big Ideas for this Session

- Proactively Breaking Down Barriers with Universal Design for Learning (UDL)

- Myths and Realities about UDL, AT and AEM

- Connecting UDL and Students with Intensive Support Needs

- Connecting UDL, Accessible Technologies, and Assistive Technology (AT)

- Connecting UDL and Accessible Educational Materials (AEM)

- Putting It All Together

Financial Disclosures

- Joy is employed by CAST as the Director of Technical Assistance and the Co-Director Emeritus of the AEM Center at CAST

- Diana contracts with CAST to serve as the Special Projects Coordinator for the AEM Center

- Joy and Diana are co-authors of the *Quality Indicators for AT: A Comprehensive Guide to AT Services*

Until Learning has No Limits
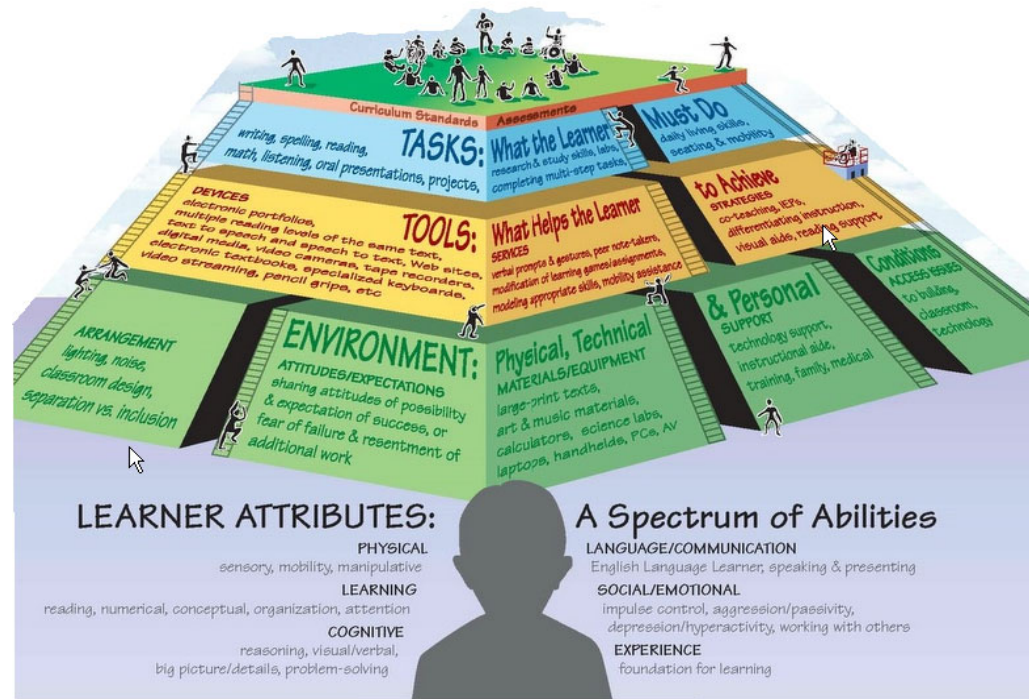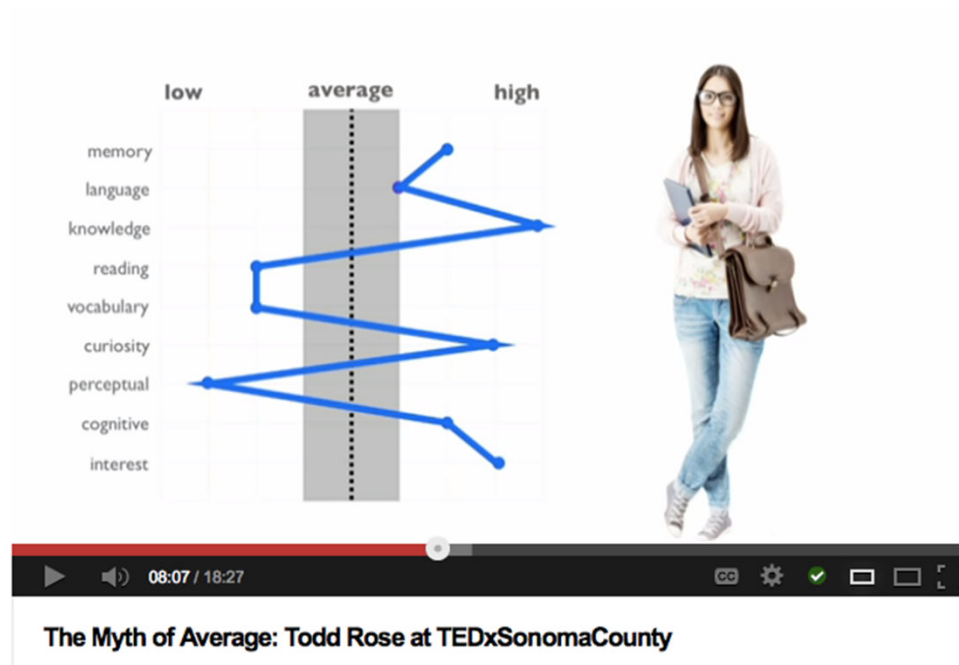
Universal Design for Learning (UDL)

UDL is framework for proactively designing learning experiences – from the beginning – that enable all students to gain knowledge, skills, and enthusiasm for learning needed to be expert, lifelong learners.

Universal Design for Learning

- Proactively identifies and reduces unnecessary barriers to learning for any student

- Provides appropriate accommodations, supports, and challenges

- Maintains high achievement expectations for all students

- Assumes variability

"Myth of the Average" by Todd Rose

The Myth of Average: Todd Rose at TEDxSonomaCounty

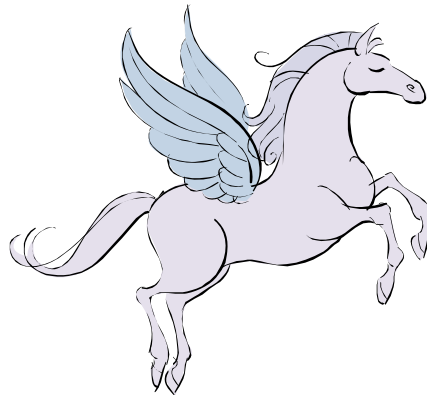# Are YOU building on a firm foundation?

Myths and Realities

UDL, AT AND AEM

Myth #1

UDL is a general education initiative -
It's not about special education.

Reality #1

UDL is about ALL learners!

Universal

http://udlguidelines.cast.org/more/about-graphic-organizer

Four Interrelated Components
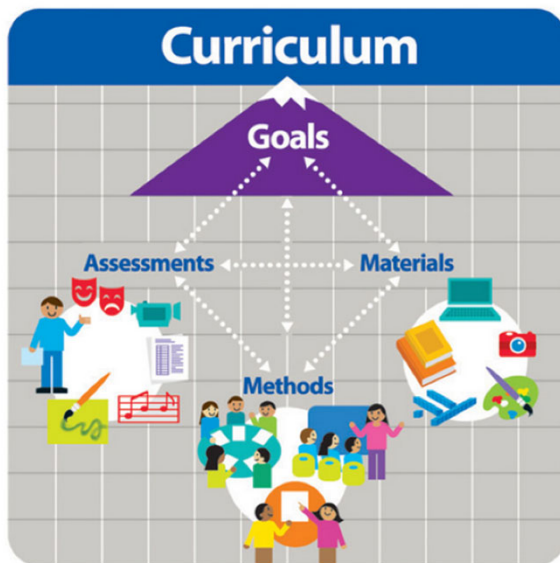
Figure 6.3. Curriculum is the interrelationship of instructional goals, assessments, materials, and methods. Illustration by Chris Vallo, © 2013 CAST, Inc.

▷ *more image information*

- Goals
- Methods
- Materials
- Assessments

Myth #2

When you "have" UDL you don't need special education or other individualized services.

Reality #2

UDL lowers barriers for most, but some learners need additional supports and services to participate and achieve.

For Example…
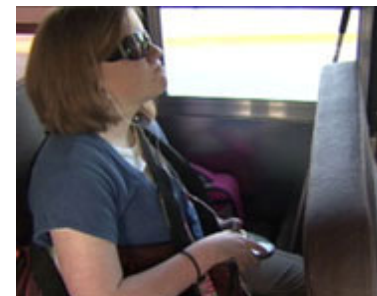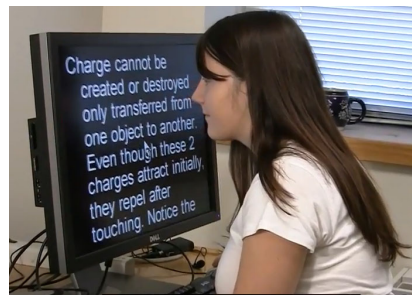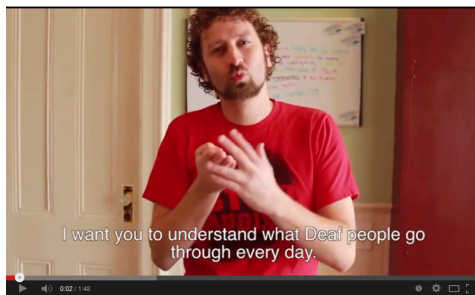
Connecting UDL and Students with More Intensive Support Needs
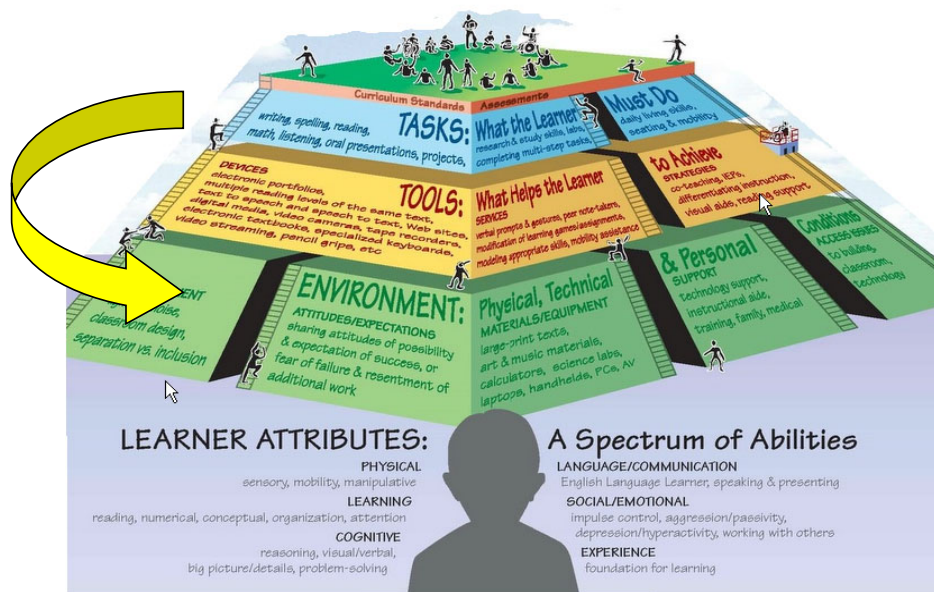
UDL seeks to make the learning environment as flexible and accommodating as possible.

Special Education and non-discrimination acts provide supports and services to individual students based on their unique needs.

Connecting UDL and Appropriate Supports and Services

- **Universal Design for Learning** looks to make the learning environment as flexible and accommodating as possible.

- **Appropriate supports and services** look at the specific barriers an individual learner may face in whatever environments they find themselves.

- **Together** they provide a means to insure the access, participation & progress of all learners

Myth #3
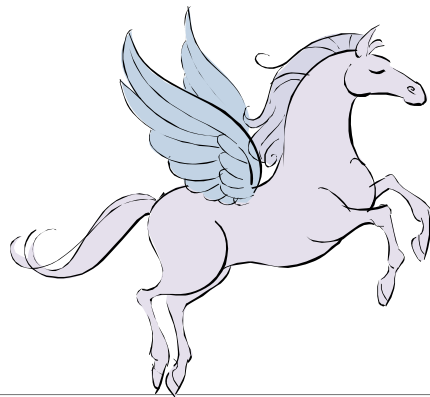
A teacher well-versed in UDL can address and meet the needs of all students.

Reality #3

✓

Students with intensive support needs often require specialized service providers or assistants

Connecting UDL and Appropriate Supports and Services

- **Services for students who are blind** must be provided by a certified Teacher of the Visually Impaired

- **Related Services (e.g., OT, PT, SLP)** must be provided by or supervised by a professional licensed in the area of the service

- **Assistants** may be needed by students with severe physical or emotional needs

Myth #4

If technology is universally designed, AT is not needed

Reality #4

✓

Some learners need AT to perceive and interact with the technology used by others

Connecting UDL, UD and AT

Universally Designed Technologies

- Are designed and developed to be directly usable (without the need for adaptation or AT)

- Are designed and developed in ways that can be made usable with AT

- Typically include lots of options that can be readily manipulated to meet the needs of a variety of users

Assistive Technology

- The primary goal of AT is the enhancement of capabilities and the removal of barriers to participation and achievement

- AT may be applicable to all disability groups and in all phases of life

- AT does not eliminate the need for instruction in social and academic skills

- AT is related to *function*, rather than to a specific disability

Functional Skills

- Reading
- Written Expression
- Math
- Problem-solving
- Communication
- Recreation
- Daily organization

- Seating/Positioning
- Hearing
- Seeing
- Self-Care
- Mobility
- Behavior
- Specific task-related skills

Connecting UDL and AT

- **AT** looks at the specific barriers a student may face in whatever environment they find themselves.

- **Universal Design for Learning** looks to make the learning environment as flexible and accommodating as possible.

- **Both approaches** strive to insure the access, participation & progress of students

Interoperability is a Key to Success
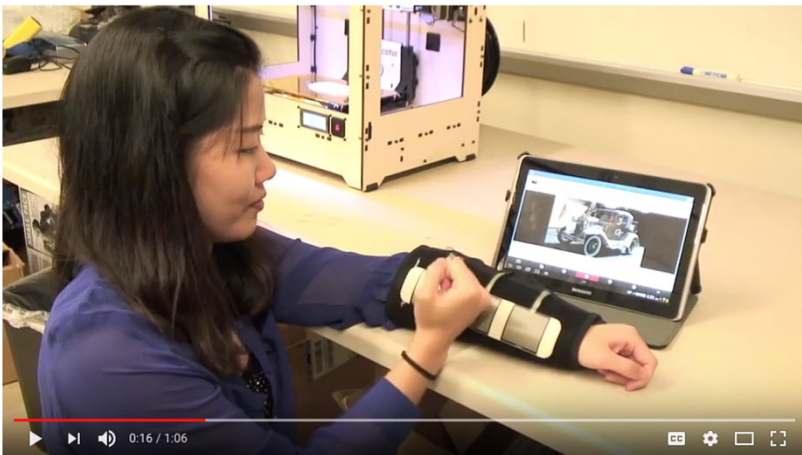
Assistive technologies broaden usability of educational technologies

IF
educational hardware and software are designed and developed according to universal design principles that enable interfacing to occur

Myth #5

If the materials and tools needed by a student are readily available in the classroom, it is not necessary or desirable to put them in the student's IEP or service plan.

Reality #5

✓

ALL supports, services, materials and tools required by a student for FAPE must be included in the student's IEP or service plan.

Myth #6

Flexible digital materials can be used by all learners

Reality #6

Just because materials are digital doesn't mean they are accessible

Connecting
UDL and Accessible Educational Materials

Connecting UDL to AEM

Broad Usability / Accessibility

- Materials that are designed or enhanced in a way that they are usable across the widest possible range of student variability regardless of format (print, digital, graphical, audio, video)

- Content may be "designed for print delivery" and require retrofitting for accessibility

- Content may be "designed for digital delivery" and difficult to retrofit if not broadly usable or accessible from the start

Specialized Formats of Printed Materials

- Braille, large print, audio, and digital text

- Exactly the same information as the printed materials

- Only the presentation of the material is different
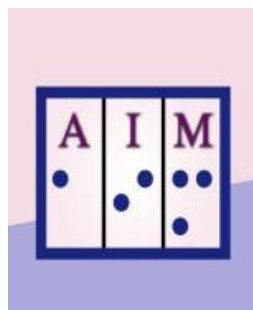
AEM Includes AIM

AIM
- IDEA
- Specialized formats of print materials

AEM
- 2015
- Print AND digital materials and technologies

Materials are Materials are Materials

"educational"

"instructional"

"learning"

ALL materials need to be accessible and useable

POUR Principles for Accessible Design

- **P**erceivable
- **O**perable
- **U**nderstandable
- **R**obust

POUR

WCAG 2.0, Level AA Principles

- **Perceivable**: Information and user interface components must be presentable to users in ways they can perceive

- **Operable**: User interface components and navigation must be operable with a variety of input methods so everyone can interact with the content

- **Understandable:** Information and the operation of user interface must be presented in a logical and predictable manner so everyone can understand the content

- **Robust:** Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including AT

AEM Center Resources – POUR

http://aem.cast.org/creating/designing-for-accessibility-pour.html

Increasing Availability of Accessible Materials

Purchasers of materials or those who influence purchasers, must ensure that contracts require that all materials purchased from publishers/developers are aligned with relevant accessibility standards (e.g., DAISY, WCAG 2.0 at minimum, Section 508).

See: Acquisition of AEM on AEM Center website at
http://aem.cast.org/navigating/acquisition-of-aem.html

Acquiring Accessible Digital Materials and Technologies

Purchasing from publishers and vendors	Selecting free and open resources	Creating your own materials
Ask: • Publishers and vendors about the accessibility features of their products. Do they meet accessibility standards? • Your administrators if your school or district includes accessibility language in contracts and purchase orders.	Look for accessibility information about the resource. If none, have your student AT users test the resource for interoperability.	• Use accessibility skills for websites (blog, wiki, etc.) and documents (word processor, PDF, presentation, spreadsheet, etc.) • Caption videos

Putting It All Together!

Accessible Materials Needed for UDL and AT

UDL	AT
Good for all	Individualized need for one
About choice	About need
Flexibility for all	Required when needed for an individual
About more than technology	Item or device that improves functional capability
Built-in universal accessibility features for all	Item or device selected based on features needed for an individual
Proactive	Responsive

Vaclav Havel

"It is not enough to stare up the steps…

We must step up the stairs "

Stepping Up the UDL Stairs

- Use UDL principles to intentionally lower barriers to learning for all

- Recognize additional barriers for some learners experience and get help to lower them

- Document well

- ALWAYS equate ROI of resources with student achievement!!

Achievement for ALL
Requires Three Things

✓ **Great Teaching the UDL Way**

✓ **Appropriate Supports and Services**

✓ **Accessible Materials and Technologies**

We are **always just a fingertip away!**

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