Career Technical Education for Students With Disabilities Webinar Series

Co-Hosted by:

Penn State College of Education, Workforce Education and Development,
The National Technical Assistance Center on Transition (NTACT), and
The Association for Career & Technical Education (ACTE)

Webinar Series #3
October 16, 2019 3:00 – 4:30 pm EST

Classroom Supports: Universal Design for Learning, Differentiated Instruction

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Agenda

- Welcome and “Ground Rules”
- Introduction of Panel Members
- Background on Relationships and Professional Practice
- Background and Principles of Universal Design for Learning and CAST Perspective
- UDL in Practice – Perspective from one school system “waking the walk and talking the talk” – Bartholomew Consolidated School Corporation (BCSC)
- Background and Principles in Differentiated Instruction and approaches regarding DI
- Teaching and Learning in a CTE setting using UDL and DI to support student engagement
- Q & A
- Wrap Up

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Classroom Supports: Universal Design for Learning, Differentiated Instruction.

Tracey Hall

Senior Research Scientist/Instructional Designer, CAST, Wakefield, MA

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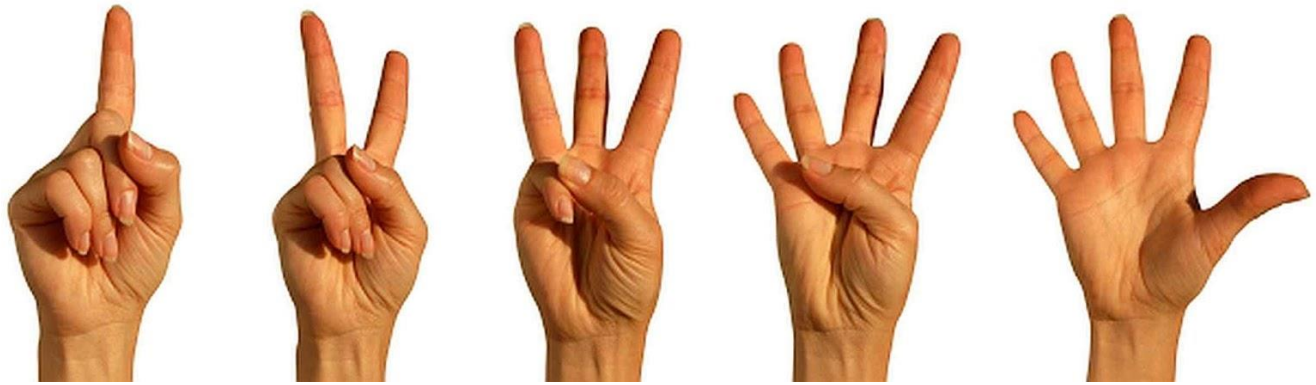
How would you rate your knowledge of UDL?



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Learner Diversity & Variability

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The Myth of Average

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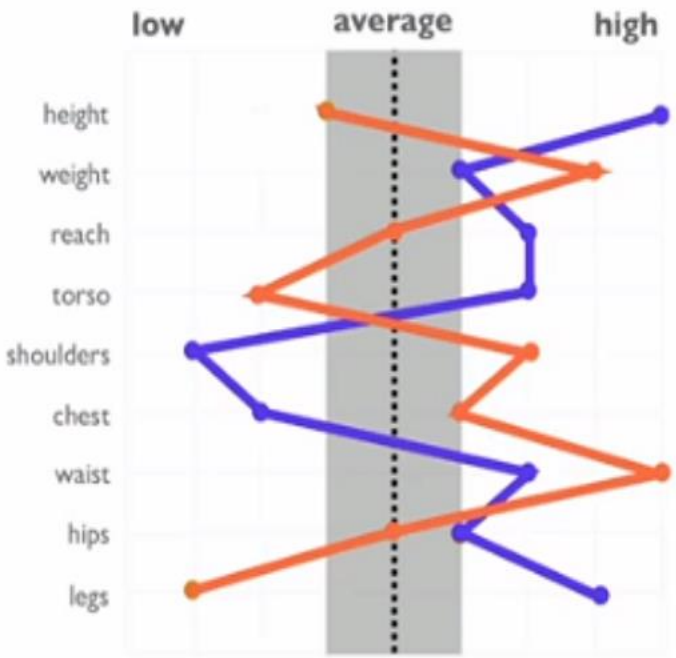
The Myth of Average



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Imagine coming to this session, and you were handed you a pile of clothes that you were expected to put on and wear for the day.

Shirt-—Size Medium
Pants—Size 8 (inseam 32”)
Shoes—Size 7

Shirt—Size Large
Pants—34” x 34”
Shoes—Size 9

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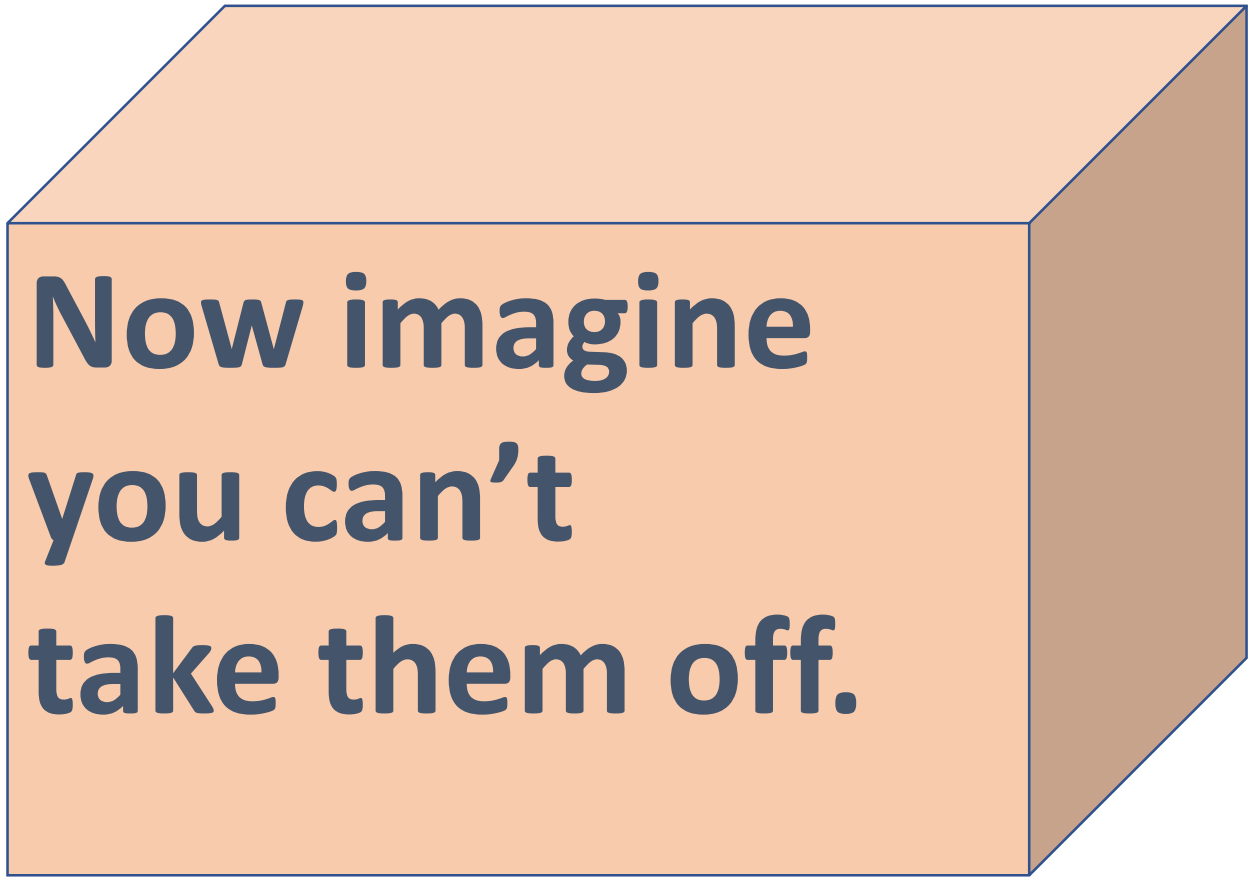

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Students vary on dimensions of learning which means they have a jagged learning profile just like size. There is no average.

We cannot nurture individual potential

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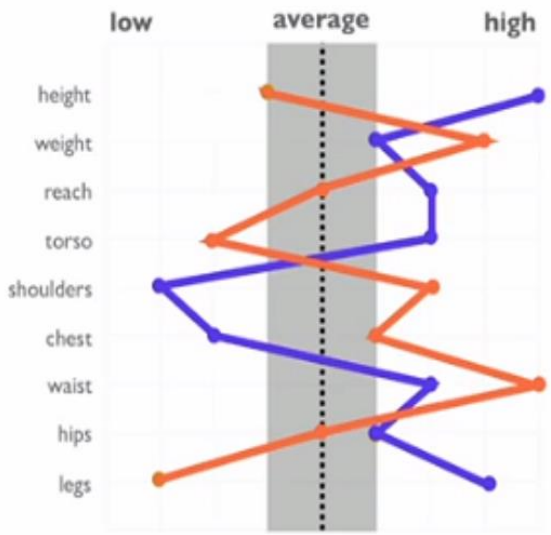

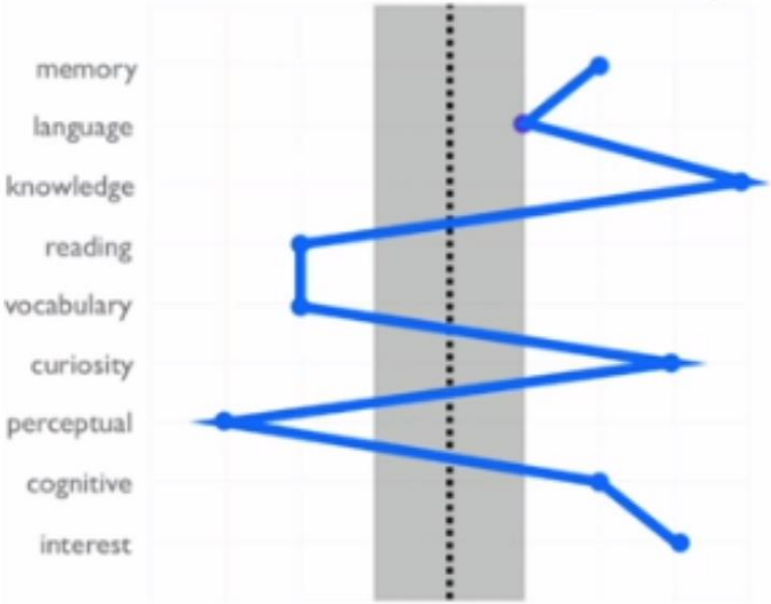

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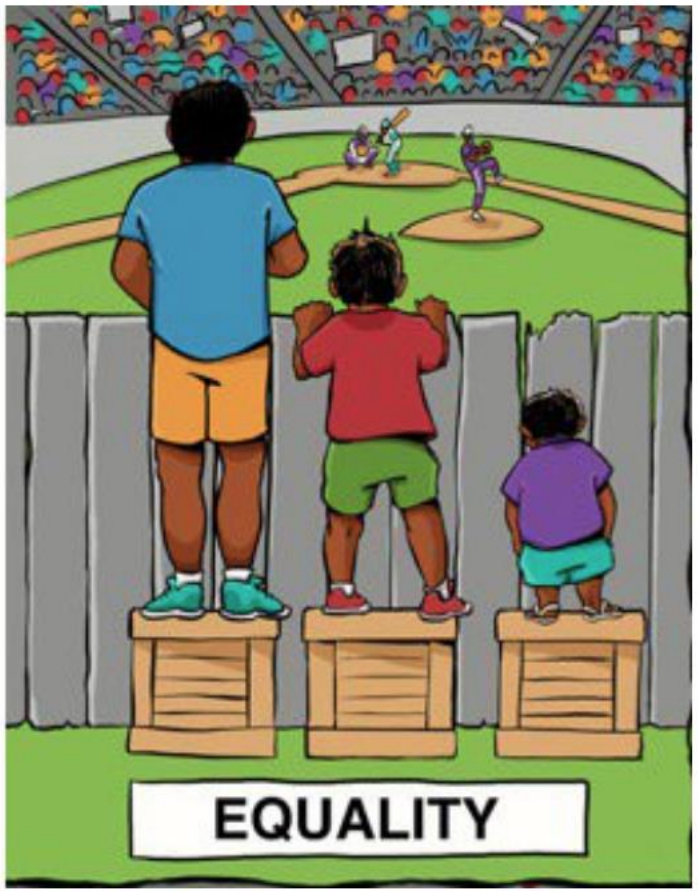

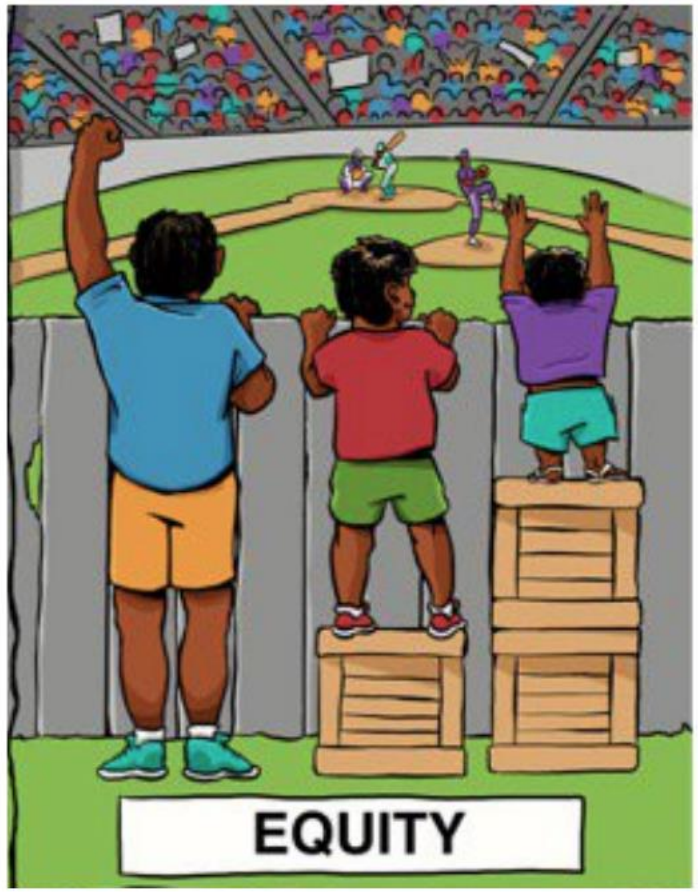

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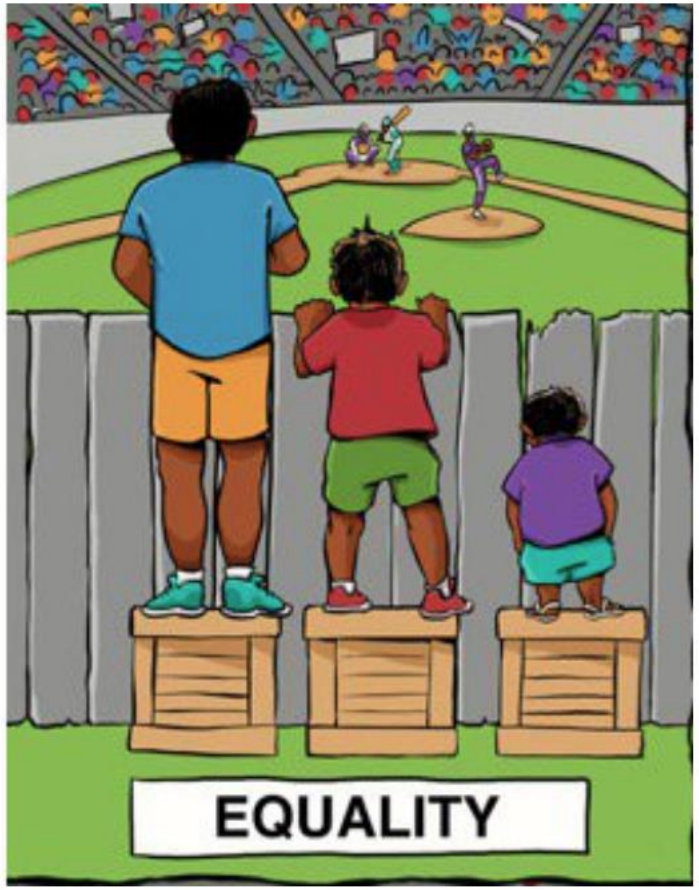

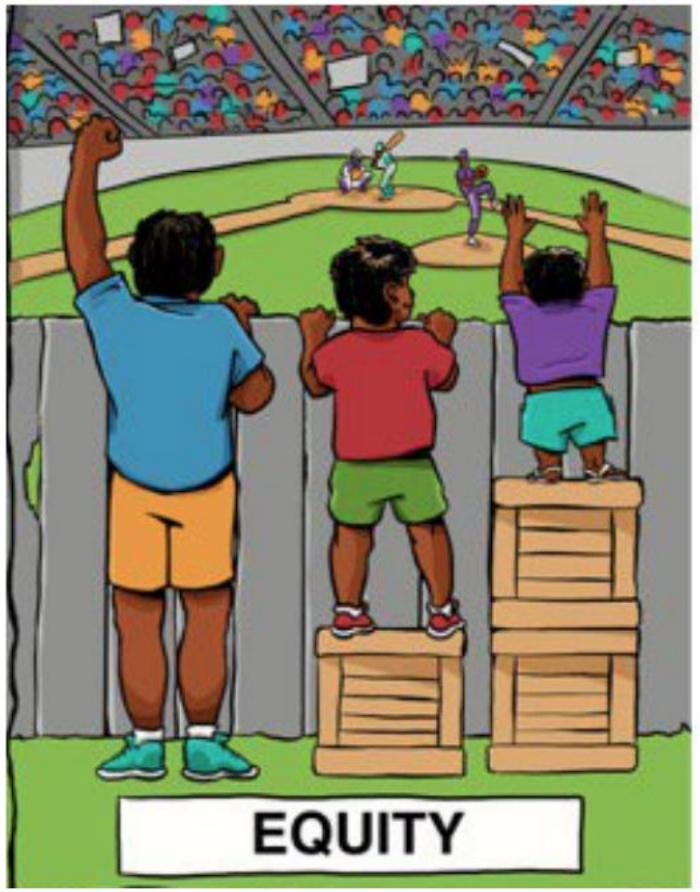

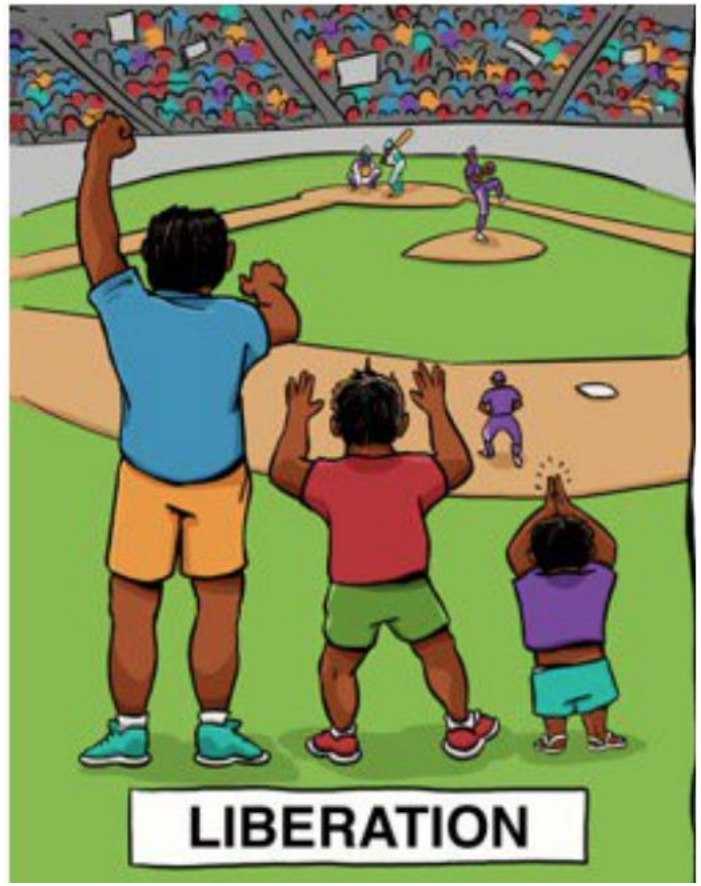

Necessary for *some*, good for *all*.

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Universal design Architecture:
Essential for some - Good for all

Universal Design for **Learning**:
Essential for some - Good for all

Educators are *designers!*

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Universal Design *for Learning* (UDL) is a framework to improve and optimize teaching and learning for all people by removing barriers in the curriculum.

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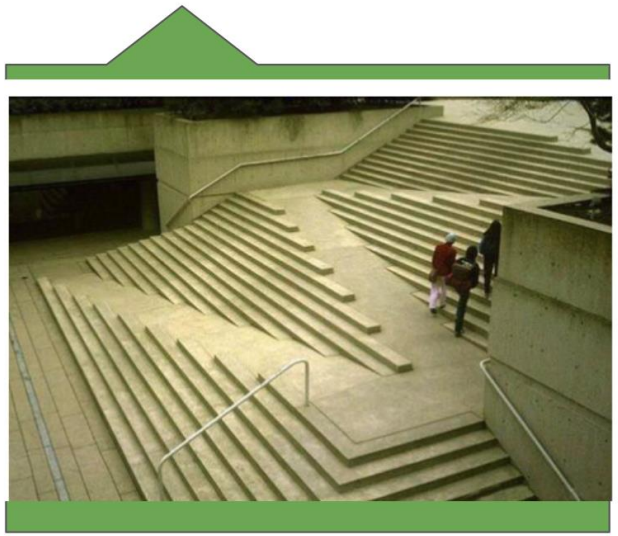
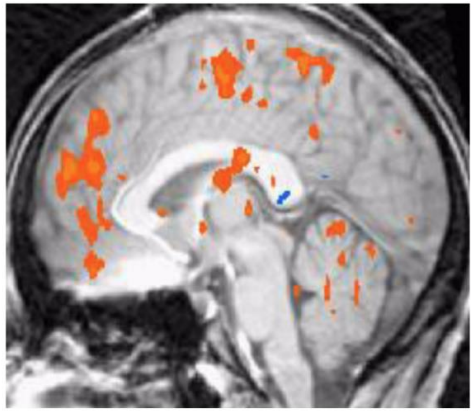
Universal Design for Learning: Inspired from 3 Fields

Architecture: *"essential for some, usable by all"*





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Universal Design for Learning:
Inspired from 3 Fields

Neurosciences: "*there is no average brain*"

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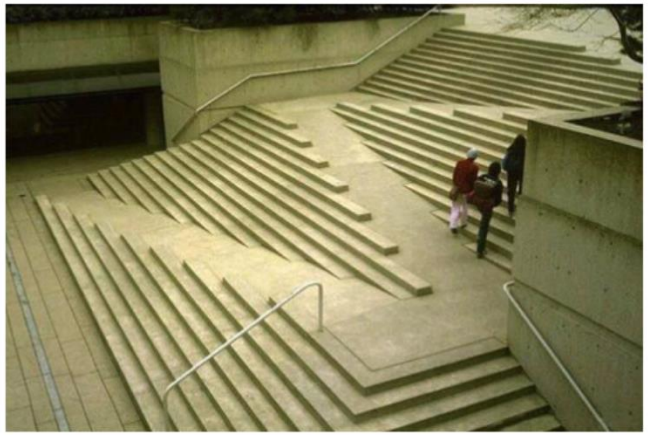
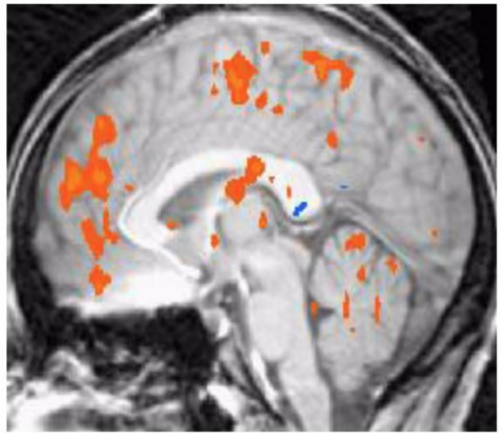
Universal Design for Learning: Inspired from 3 Fields

Technology: *"flexible means"*





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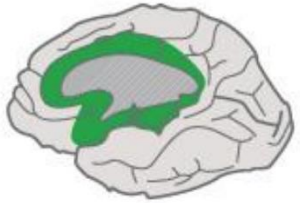
Inspiration to create three fundamental principles of UDL

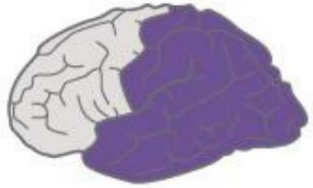
Affective networks:
THE WHY OF LEARNING



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

Stimulate interest and motivation for learning

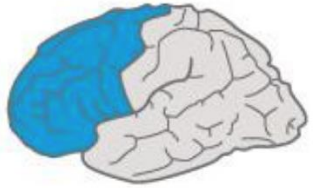
Recognition networks:
THE WHAT OF LEARNING



How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.

Present information and content in different ways

Strategic networks:
THE HOW OF LEARNING



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

Differentiate the ways that students can express what they know

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Understanding UDL: The Bowling Analogy

- https://www.youtube.com/watch?v=RYtUlU8MjlY#action=share

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UDL Assumptions

- Learning is the dynamic interaction of the individual with the environment/context.
- Learner ability/disability is at the intersection of the individual and the environment/context.
- Learners in any learning environment represent a range of variability.
- The goal of instruction is to develop expert learners.

What a Long Strange Trip Its Been

Bartholomew Consolidated School Corporation (BCSC)
George Van Horn, Ed.D. Director of Special Education
vanhorng@bcsc.k12.in.us
www.bcsc.k12.in.us/udl

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How does BCSC address:

12,000 +/- Students

Speaking 51 Languages

Students with Disabilities: 13%

Economically Disadvantaged: 50%

Minority: 16%

English Language Learners: 11%

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The Goal

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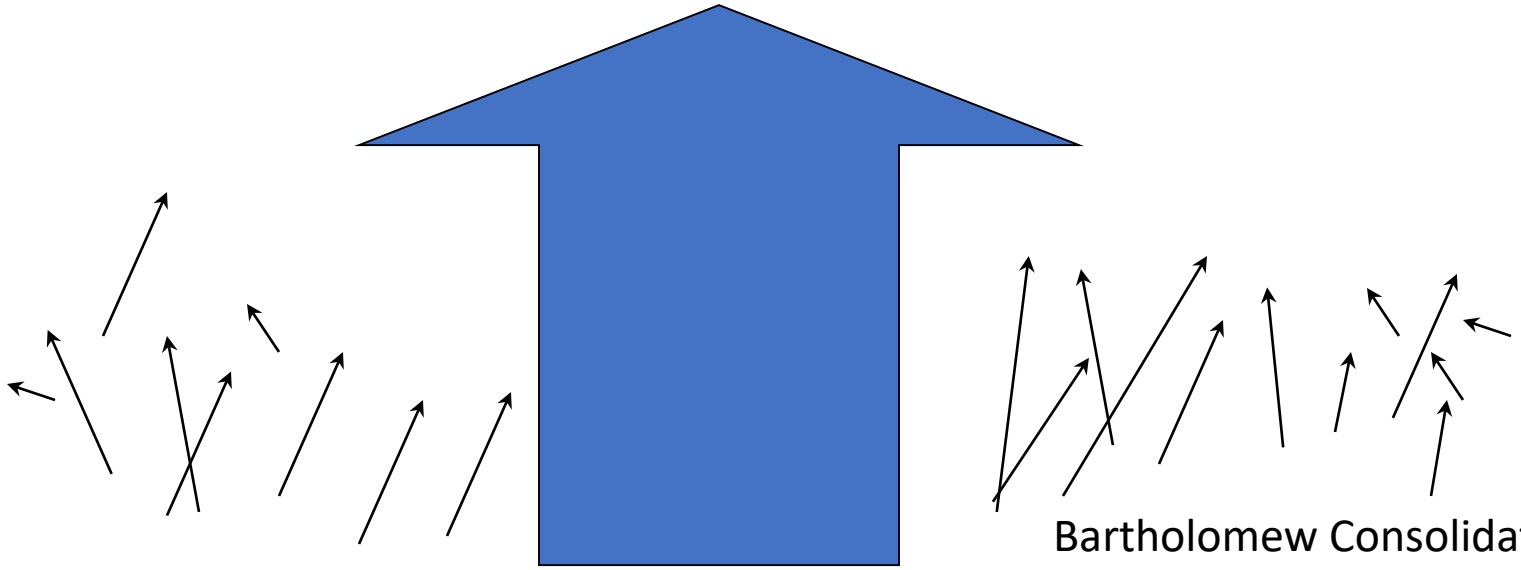
Need for Change

Random Acts of Improvement



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Many systems were in need of integration, alignment, and expansion

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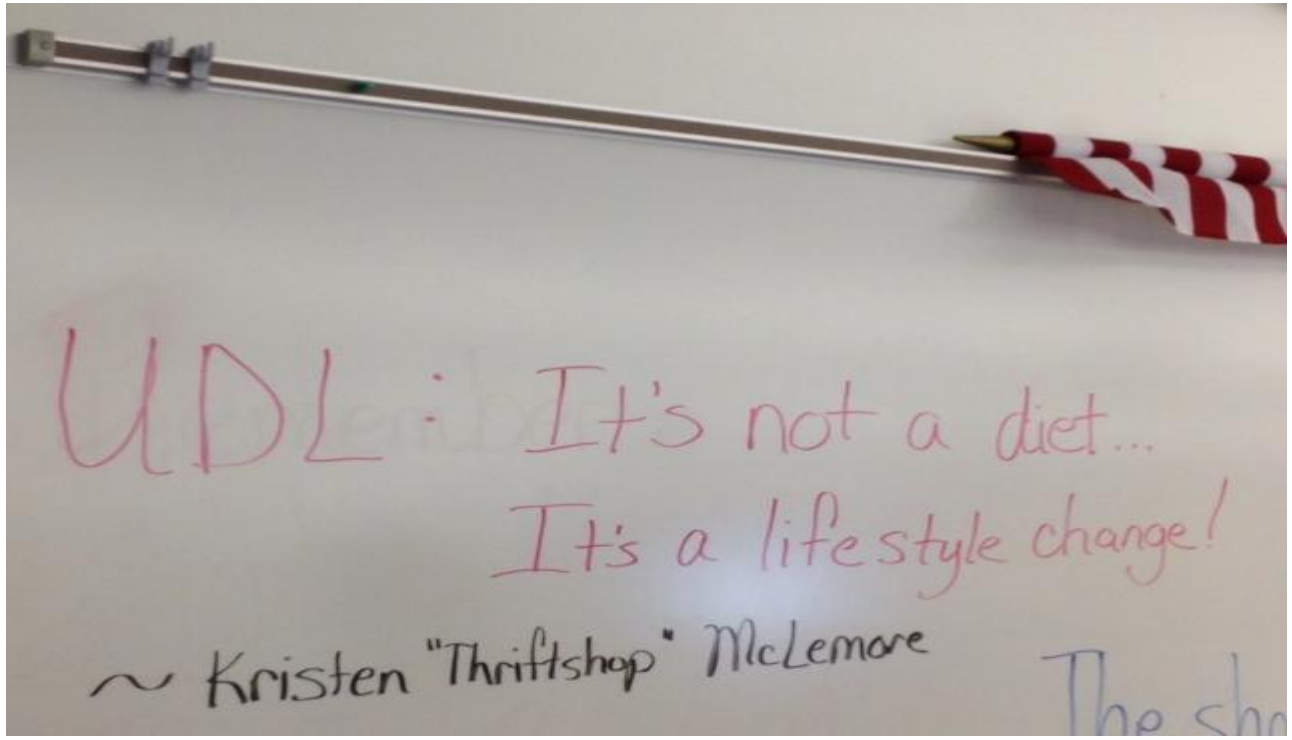
Variability



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- At BCSC, UDL is no longer a district initiative:
  - ***It IS the framework through which all other initiatives, policies and procedures are filtered, supported and implemented.***

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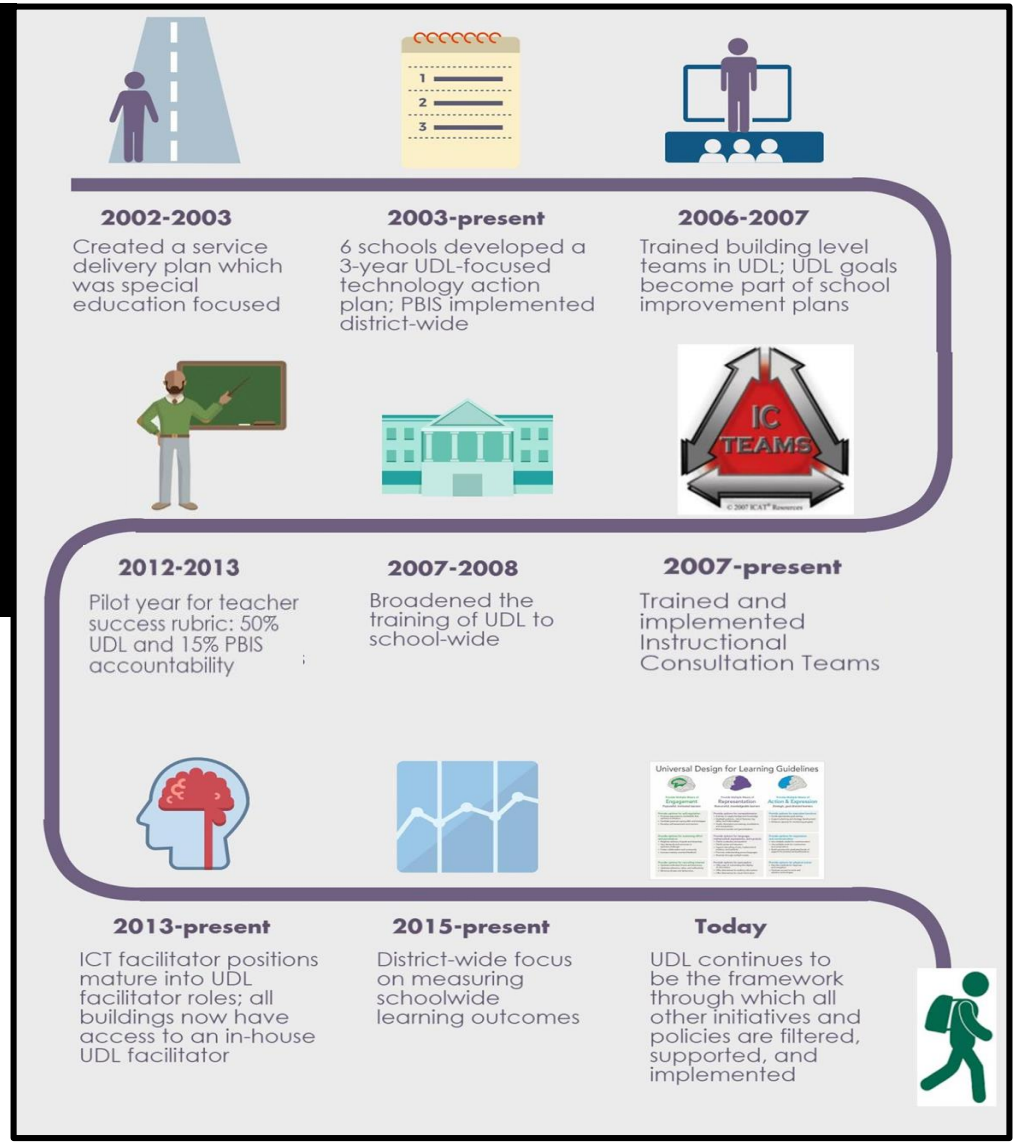
UDL Implementation

The BCSC Way



Bartholomew Consolidated School Corporation
BCSC
Deeper Learning Works

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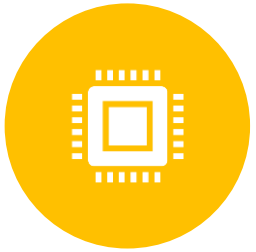
Resources

TWO UDL COORDINATORS

NINE UDL FACILITATORS



INTEGRATION OF UDL, PBIS, AND ICT

TEACHER EVALUATION RUBRIC IMPLEMENTED DISTRICT-WIDE

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Pat Summit: University of Tennessee

- No two players are alike.
- I asked all our players to achieve the same standard, but I couldn't ask all of them in the same way.

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Instructional Differentiation

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OSU TULSA

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Students Differ in…

- Readiness
- Interest
- Learning Profile
    - the ways they process and organize information (brain function)
    - the methods they prefer for learning (learning styles)
    - their interpersonal strengths (multiple intelligences)
    - the presence of learning and behavior concerns (environmental dynamics)

Differentiated Instruction

- It provides students with multiple options for learning and expression.
- It does not change WHAT is taught.
- It changes HOW it is taught.
- It is the goal of matching teaching to student's learning needs to achieve maximum academic growth.
- It is proactive and more qualitative than quantitative.
- It is organic and dynamic.

It is meeting individual student needs!

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Elements of Differentiation

- Content
  - the input; what students learn (method and media)
- Process
  - how students make sense of ideas / information (practice and exercise)
- Product
  - how students demonstrate what they learned
- Learning Environment
  - physical and psychological conditions for students' optimal learning

Content – method/media of how information is taught

Think about the Curriculum Objectives and Student Readiness

- Varied Content Targets with Tiered Lessons
- Parallel Alternate Materials to Leverage Student Strengths
- Problem-Based or Place-Based Education to Leverage Student Awareness
- Classification and Association Learning (e.g. similarities and differences)
- Game-Based Learning and Project-Based Learning (e.g. tiered task analysis)
- Curriculum Compacting and Sequencing (e.g. chunking and themes)
- Information Leveling and Scaffolding (e.g. informational coding and tiering)

Process – practice/exercises of how knowledge is categorized

Think about the learning preferences, interests and needs

- Graphic Organizer Guides vs. Manipulative Leveling Response
- Multimodal Teaching with Forum Group Discussions vs. Inquiry-Based with Inductive Questioning Strategies
- Didactic vs. Inquiry Based with Deductive vs. Inductive Reasoning
- Guided vs. Independent Learning Stations
- Learning Task Menus with Leveled Tasks vs. Assignment Format Options
- Association: Human Senses vs. Learning Styles vs. Multiple intelligences
- Leveling: Chunking vs. Sequencing vs. Scaffolding

Product – method/materials used by students to demonstrate knowledge

INSTEAD OF Traditional Assignments/Assessments (e.g. written reports / papers)

- Nonlinguistic Content Representations (e.g. graphic organizers / mental pictures)
- Visual Media Presentations (e.g. posters / pictographs / infographics / cubing)
- Physical Model Presentations (e.g. 3-D models / creative components)
- Oral Report Presentations (e.g. PowerPoint / Prezi)
- Digital Designed Curriculum Presentations (e.g. online projects)
- Kinesthetic Activity Presentations (e.g. art / dramatic / musical projects)
- Open-Ended Projects (encourage students to propose ideas for their projects)

Environment – conditions of how information is shared

Teacher or Student Centered Instruction

- Whole Class Instruction
- Small Group Instruction
  - learning stations
- Cooperative and Flexible Grouping
  - ability grouping
  - learning style grouping
  - concept knowledge grouping

Managing Differentiation

- **Decide** what to teach
  - content, standards, goals
- **Pre-assess** to determine existing knowledge and environmental needs
  - reflective exercises (e.g. journaling with categorization)
  - task cards / think-pair-share
  - interview students / role play with students
  - learning contracts / 1-pagers
- **Design and Teach**
- **Reflect and Redesign** lessons based upon students needs

Helpful Resources

- Tomlinson, C. A., & Imbeau, M. B. (2010). Leading and managing a differentiated classroom. Alexandria, VA: ASCD.
- https://iris.peabody.vanderbilt.edu
- http://www.cteresource.org/featured/differentiated_instruction.html

Practical Applications in CTE using UDL and Differentiated Instruction

TULSA

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Two Worlds Intersect

- **Content Knowledge (CTE)**
  - **What are the skills, abilities and competencies needed in the workplace?**

- **Specialized Pedagogical and Practical Knowledge (SPED)**
  - **How are students unique in their needs and learning? How do we best present information to ALL students?**

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High-Quality CTE Program of Study

- ACTE has created an evidence-based framework defining high-quality CTE across 12 elements:
  - https://www.acteonline.org/professional-development/high-quality-cte-tools/

- **All 12 elements are important with ALL students**
- Engaging Instruction Element
- Application to UDL and DI

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Relationship of UDL/Differentiated Instruction with High-Quality CTE Programs of Study

- Focus on the unique individual student
  - Different learning style, interest, readiness for instruction
- Competency-based instruction
  - Varied content based on the uniqueness of student
  - Scaffolding on prior learning
  - Chunking and themes
  - Customized and individualized instruction
- Scenario/problem-based/project/based
  - Hands on
  - All content is focused on real life work world needs and job duties
  - Creative ways to represent knowledge learned

How do I make this work in the real life classroom?

CCDM

Comfort-Challenge-Depth-Motivation

1. **Comfort**
2. **Challenge**
3. **Depth**
4. **Motivation**

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Comfort

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Challenge

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Depth

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Motivation

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Practical Examples:

- Team of the special education teacher and the CTE teacher
  - Also might include academic success coaches; academic resource teachers
  - Communication before email!
  - Regular schedule; no more than 2 weeks
  - Observing students in their home environment
  - Honest discussions about our goals
  - Allowed students to regularly take samples back to their home schools to share

- "One on One with Mrs. C"
  - Interest surveys and learning styles inventory completed
  - Added to this, a one on one time with each student exploring their answers
  - Besides the obvious questions like why this class, Questions like:
    "When you need advice who do you ask?"
    "When you are frustrated what do you do?"
    "What makes you happy?"
  - Showed them examples of how I do not know everything!

Practical Examples

- Home visits
- Interest in what they are interested in
  - Even high school football!
  - Music
- Gave choices as appropriate
  - “We have these three units to cover and learn. Which one first?”
- Allowed headphones – separate study areas; small folding carrels for our desks

Practical Examples

- Individualized learning activity packages
- Common discussion and information sharing times
- “Signing your work”
- What are the foods you eat in your family? Can you show me how to make Navajo tacos?

Math

- Biggest challenge
- Elementary education math books
- Display boards/pattern cutting boards which included actual measuring cups, measuring spoons
- Pizza!
- Tried to ‘mirror’ instruction as much as possible
- 3-D models
- All students had at their desk:
  - Cookie sheets and Fuzzy Wuzzys magnets with pom poms

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Graphic Organizers

Step #1

Step #2

Step #3

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Issues with Emotions

- FREE time out as needed
  - Walk in freezer☺
- Planning critical and tough conversations
- Role playing
- Model self-awareness
- Emotional word wall
- Thought of the Week on the board
- Drawing our emotions
- Highway Signs

How am I feeling today?

Similar to the pain management charts used

Today I feel . . .

The last time I felt this way was . .

The reason for this feeling back then was . .

I feel this way today because . . .

When I feel this way I want to:

a. Talk about it with others
b. Be alone
c. Do something interesting to get my mind off it
d. Write about it in my journal

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Summary:

"The paradox that faces education is that human beings are both similar and different."

Renate and Geoffrey Caine

- References:

  - Gregory, G. & Parry, T. (2006). *Designing brain-compatible learning*. Thousand Oaks, CA: Sage Publications.
  - Silver, H., Strong, R. & Perini, M. (2000). *So each may learn.* Alexandria, VA: ASCD.
  - Sprenger, M. (2003). *Differentiation through learning styles and memory.* Thousand Oaks, CA: Sage Publications.

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Time for you to ask questions…

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