

How Universal Design for Learning is Like a Trip to the Beach with 30 Friends and Family



All Born (In) Conference, Keynote: March 18, 2017

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“I See You.”

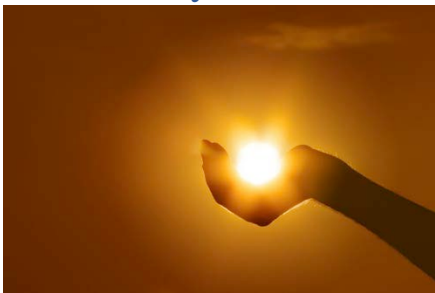
Sawubona



“I Am Here.”

Sikhona

I see you and
I value your voice

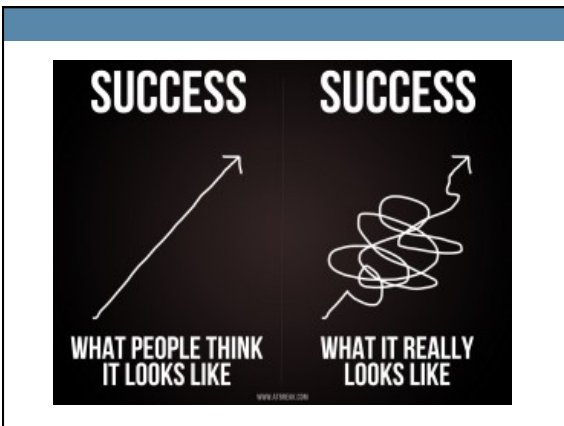




Top Five Ideas

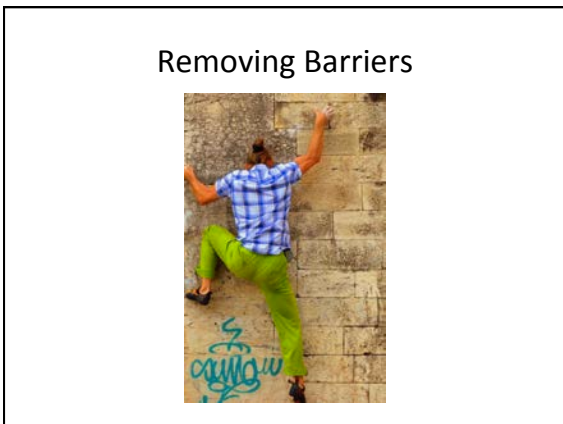
Variability Context Choice & Flexibility
Curiosity Connected Presence













Proactive Planning







How are our Top 5 Ideas Valued?
Variability, Context,
Choice & Flexibility,
 Curiosity, **Connected Presence**

Our Unique Brain: The Connectome



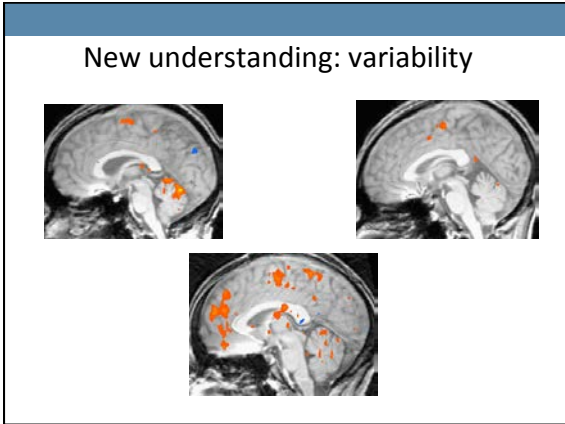
Focus on Predictable variability

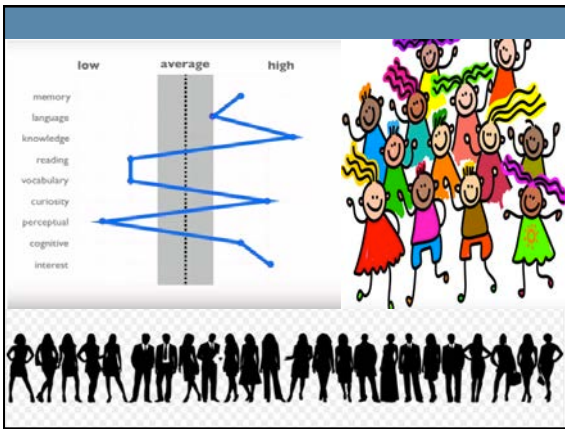
Universal Design for Learning

Affective networks: THE WHY OF LEARNING	Recognition networks: THE WHAT OF LEARNING	Strategic networks: THE HOW OF LEARNING
		
How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.	How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.	Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.
 Stimulate interest and motivation for learning	 Present information and content in different ways	 Differentiate the ways that students can express what they know

3 parts of the Connectome

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All individuals are part of the natural variability that exists in any population

Universal Design for Learning

- **Universal:** Everyone has the opportunity to develop and reach his personal best.
- **Design:** UDL is “intentional, purposeful, and planned.” The variability of learners and their needs are considered right from the start.
- **Learning:** All individuals are challenged and supported in meaningful ways to work toward making progress and mastering goals.

“Fix” the environment--not the student

Learning Styles Do not Exist It's all about the Context






Essential for some, beneficial and usable by all

Change the environment, not student




Universal Design for Learning Guidelines

 Provide Multiple Means of Engagement Purposeful, motivated learners	 Provide Multiple Means of Representation Resourceful, knowledgeable learners	 Provide Multiple Means of Action & Expression Strategic, goal-directed learners
Provide options for self-regulation <ul style="list-style-type: none"> Promote expectations and beliefs that optimize motivation Facilitate personal coping skills and strategies Develop self-assessment and reaction 	Provide options for comprehension <ul style="list-style-type: none"> Activate or supply background knowledge Highlight patterns, critical features, big ideas, and relationships Guide information processing, visualization, and manipulation Maximize transfer and generalization 	Provide options for executive functions <ul style="list-style-type: none"> Guide appropriate goal setting Support planning and strategic development Enhance capacity for monitoring progress
Provide options for sustaining effort and persistence <ul style="list-style-type: none"> Heighten salience of goals and objectives Vary demands and resources to optimize challenge Foster collaboration and community Increase mastery-oriented feedback 	Provide options for language, mathematical expressions, and symbols <ul style="list-style-type: none"> Clarify vocabulary and symbols Clarify syntax and structure Support decoding of text, mathematical notations, and symbols Promote understanding across languages Illustrate through multiple media 	Provide options for expression and communication <ul style="list-style-type: none"> Use multiple media for communication Use multiple tools for construction and composition Build exercises with graduated levels of support for practice and performance
Provide options for recruiting interest <ul style="list-style-type: none"> Optimize individual choice and autonomy Optimize relevance, value, and authenticity Minimize threats and distractions 	Provide options for perception <ul style="list-style-type: none"> Offer ways of customizing the display of information Offer alternatives for auditory information Offer alternatives for visual information 	Provide options for physical action <ul style="list-style-type: none"> Vary the methods for response and navigation Optimize access to tools and assistive technologies

Engagement

Affective Networks
The "why" of learning




How learners get engaged and stay motivated.

How they are challenged, excited, or interested.

These are affective domains.

Recognition Networks
The "what" of learning




Representation

How we gather facts and categorize what we see, hear, and read.

Identifying letters, words, symbols, an author's style, or mathematical problems are recognition tasks

Strategic Networks
The "how" of learning




Action & Expression

Planning and performing tasks.

How we organize and express our ideas.

Writing an essay or solving a math problem are strategic tasks.




What UDL "looks like" 

- Goals posted in multiple places in clear language
- Students know what they are working towards
- Active learners—can get productively noisy!
- Looks like a **PROCESS** of learning—not passive, compliant learners.




Maximize the learning (times 2 or 3!) in your co-taught classrooms

Shake it up!

Universal Design for Learning Guidelines

 Provide Multiple Means of Engagement <i>Purposful, motivated learners</i>	 Provide Multiple Means of Representation <i>Resourceful, knowledgeable learners</i>	 Provide Multiple Means of Action & Expression <i>Strategic, goal-directed learners</i>
<p>Provide options for self-regulation</p> <ul style="list-style-type: none"> • Promote expectations and beliefs that optimize motivation • Facilitate personal coping skills and strategies • Develop self-assessment and reaction 	<p>Provide options for comprehension</p> <ul style="list-style-type: none"> • Activate or supply background knowledge • Highlight patterns, critical features, big ideas, and relationships • Guide information processing, visualization, and manipulation • Maximize transfer and generalization 	<p>Provide options for executive functions</p> <ul style="list-style-type: none"> • Guide appropriate goal setting • Support planning and strategy development • Enhance capacity for monitoring progress
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Embedding UDL Principles

 Provide Multiple Means of Engagement <i>Purposful, motivated learners</i>	<p>Multiple Means of Engagement:</p> <ul style="list-style-type: none"> •Video and class discussion •Images of clouds at each student group •Peer collaborations and discussions
 Provide Multiple Means of Representation <i>Resourceful, knowledgeable learners</i>	<p>Multiple Means of Representation:</p> <ul style="list-style-type: none"> •Video and class discussion •Teacher model note-taking •Use of iPads/websites/embedded links to support concepts
 Provide Multiple Means of Action & Expression <i>Strategic, goal-directed learners</i>	<p>Multiple Means of Action & Expression:</p> <ul style="list-style-type: none"> •Clearly stated goals—made visible •Include students' talents (music, rhythm, social, art) to guide their ability to express content in writing •Match vocabulary cards with cloud images •Jot key ideas on post-its—sketch—write words. •Translate understanding into written expression (Quick-Write) complete sentences.

Similarities	
Differentiated Instruction (DI)	Universal Design for Learning (UDL)
Content: Provides options for accessing high-quality curriculum. Emphasizes teacher clarity about the learning goal.	Representation: Provides options for acquiring and comprehending information. (UDL principle 1)
Process: Provides options, at the right level of challenge, for practicing, applying, and generalizing new knowledge, understandings, and skills.	Engagement: Provides options that tap into learners' interests and provides appropriate challenge to increase engagement. (UDL principle 3)
Product: Provides options to demonstrate learning.	Expression: Provides options to demonstrate learning. (UDL principle 2)

•High Expectations for All Learners
 •Access to Academic Standards for All Learners
 •Increased Student Achievement for All Learners

DI: Focus on "Fixing the Learner" **UDL: Focus on "Fixing Instruction/ Curriculum"**--Embeds DI-Proactive
DI alone can result in retrofitting.

Goal(s)	Barriers	UDL Solutions (scaffolds, strategies)
1. Students will name four types of clouds and explain why they form. 2. Write quick paragraph to express understanding of content.	1. Watching video may be fast paced. 2. Teacher lecture-note-taking style may be distracting, not supportive enough 3. SMARTboard visual overwhelming or lack enough detail to use a reference 4. Students sitting in rows may promote detached, unsupported time to ZONE out...daydream... get frustrated.	1. iPads set up as choice for support (preset with links ready to support re-teaching, reviewing, re-seeing...for deeper perceptions and understanding. 2. Desks set up in pairs or small groups for peer interactions/processing time. 3. Guided Notes options 4. Images of clouds with academic vocabulary captions set up for students to refer to during any point in lesson.

UDL Guidelines: Universal to Personal

Specific enough and Generalizable

Provide Multiple Means of Representation
Resourceful, knowledgeable learners

Provide options for comprehension

- Access to varied representations
- Multiple formats, color, audio, big text, and graphics
- Adjustable content, structure, navigation, and interaction
- Multiple media and presentation

Provide options for language

- Clear, concise language
- Chunk and pace content
- Support reading of text, mathematical symbols, and formulas
- Multiple means of communication
- Support through modeling, scaffolds

Provide options for perception

- Offer visual prompting and cues
- Offer alternative text
- Offer alternative for audio information
- Offer alternative for visual information

Provide Multiple Means of Action & Expression
Strategic, goal-directed learners

Provide options for executive functions

- Check sequence and timing
- Support planning and writing
- Multiple options for monitoring progress

Provide options for expression

- Offer multiple means of communication
- Use multiple means for visualization and interaction
- Multiple means for problem solving
- Offer multiple means for problem presentation

Provide options for physical action

- Offer multiple means for navigation
- Offer multiple means for interaction
- Offer multiple means for navigation

Provide Multiple Means of Engagement
Purposeful, motivated learners

Provide options for self-regulation

- Provide resources, information, and support
- Offer multiple means for self-regulation
- Offer multiple means for self-regulation
- Offer multiple means for self-regulation

Provide options for sustaining effort and attention




- Higher interest of goals and outcomes
- Offer multiple means for motivation
- Offer multiple means for motivation
- Offer multiple means for motivation

Provide options for recruiting interest

- Offer multiple means for motivation
- Offer multiple means for motivation
- Offer multiple means for motivation

CAST Professional Learning

Horizontal Organization




 <p>Provide Multiple Means of Representation Resourceful, knowledgeable learners</p> <p>Provide options for comprehension</p> <ul style="list-style-type: none"> Activate or supply background knowledge Highlight patterns, critical features, big ideas, and relationships Guide information processing, visualization, and translation Maximize transfer and generalization <p>Provide options for language, mathematical expressions, and symbols</p> <ul style="list-style-type: none"> Clarify vocabulary and symbols Clarify syntax and structure Support decoding of text, mathematical notations, and symbols Promote understanding across languages Illustrate through multiple media 	 <p>Provide Multiple Means of Action & Expression Strategic, goal-directed learners</p> <p>Provide options for executive functions</p> <ul style="list-style-type: none"> Clarify expectations, goal setting Support planning and strategy development Enhance capacity for monitoring progress <p>Provide options for expression and communication</p> <ul style="list-style-type: none"> Use multiple media for communication and organization Build fluency with oral, written, and graphical forms of support for practice and performance 	 <p>Provide Multiple Means of Engagement Purposeful, motivated learners</p> <p>Provide options for self-regulation</p> <ul style="list-style-type: none"> Promote expectations and beliefs that optimize motivation Facilitate personal coping skills and strategies Develop self-assessment and reflection <p>Provide options for sustaining effort and persistence</p> <ul style="list-style-type: none"> Heighten salience of goals and objectives Use prompts and resources to optimize challenge Promote collaboration and community Increase mastery-oriented feedback
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ACCESS (outside, low cognitive demand)

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BUILDING SKILLS (guided support)

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INTERNAL (challenges the learner)

<p>Provide options for perception</p> <ul style="list-style-type: none"> Offer ways of summarizing the clarity of information Offer alternatives for auditory information Offer alternatives for visual information 	<p>Provide options for physical action and navigation</p> <ul style="list-style-type: none"> Use the methods for response and navigation Optimize access to tools and assistive technologies 	<p>Provide options for recruiting interest</p> <ul style="list-style-type: none"> Optimize individual choice and autonomy Optimize relevance, value, and authenticity Minimize threats and distractions
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What UDL “looks like”


- All means EACH
- More student-led, active learning—teacher as facilitator
- Purposeful choices—students in charge of own learning
- Accessible, Meaningful Process
- Opportunities for EACH to achieve personal best

How Students Learn (And Co-Teachers!)


Universal Design for Learning Guidelines



Provide Multiple Means of Engagement
Purposeful, motivated learners



Provide Multiple Means of Representation
Resourceful, knowledgeable learners



Provide Multiple Means of Action & Expression
Strategic, goal-directed learners

Creates “Expert Learners”
Students who achieve at their personal best!


Learners are purposeful and motivated! (Engagement)
Learners are resourceful and knowledgeable! (Representation)
Learners are strategic and goal-directed! (Action & Expression)



Feeling the UDL Mindset



Universal Design for Learning Guidelines



Provide Multiple Means of Engagement
Purposeful, motivated learners

Provide options for self-regulation:


- Provide resources and materials that address individual learning preferences
- Develop self-assessment and feedback

Provide options for learning effort and persistence:

- Highlight relevance of goals and objectives
- Use chunking and scaffolding to reduce effort
- Foster collaboration and community
- Increase opportunities for feedback

Provide options for meaningful content:

- Develop relevant, diverse and authentic content
- Address individual, social and community interests
- Increase choice and distribution



Provide Multiple Means of Representation
Resourceful, knowledgeable learners

Provide options for representation:


- Address in ways that expand knowledge
- Highlight patterns, relationships and connections
- Use multiple means of representation, including text, audio, video, graphics, and animation
- Address individual learning preferences

Provide options for language, mathematical representations, and symbols:

- Check vocabulary and syntax
- Check content and structure
- Address individual learning preferences
- Address individual language background
- Address through multiple media

Provide options for navigation:

- Offer ways of using the digital content
- Offer alternatives for various conditions
- Offer alternatives for user information



Provide Multiple Means of Action & Expression
Strategic, goal-directed learners

Provide options for physical function and communication:

- Provide alternative and varied ways of responding to content
- Increase opportunities for communication and expression
- Address individual learning preferences
- Address through multiple media

Provide options for physical action:

- Offer the options for alternative responses
- Increase choice, feedback and information

What does a UDL mindset mean to you at this point?
Discuss it! Jot it!
Let it sink in!

12

Watering UP the Curriculum

Ellis, 2002

9 Goals for Watering UP the Curriculum Aligns with UDL to guide variable learners

Maintaining High Expectations for All Learners
Where all means EACH!



Reference:
Ellis, E. S. (2002). Watering up the curriculum for adolescents with learning disabilities, part I: Goals of the knowledge dimension. Remedial and Special Education, 326-346.

#1: Active Learning



What Students are doing	What teacher is doing
<ul style="list-style-type: none"> Actively Participating Building Upon Background Knowledge Making Connections Asking Questions Collaborating with Peers to seek solutions 	<ul style="list-style-type: none"> Facilitates, Guides, Co-Creates Relationship with students—and with learning process itself.

#2: Depth of Learning Process



What Students are doing	What teacher is doing
<ul style="list-style-type: none"> Explores concepts and essential question—big ideas. Applies knowledge through inquiry 	<ul style="list-style-type: none"> Elevates student voice through strategic instructional decisions. Less teacher talk—less lecture--guides learning process.

#3: Co-Creating Relationships

What Students are doing	What teacher is doing
<ul style="list-style-type: none"> • Seek connections between ideas • Construct new to known • Collaborate with teacher and peers • Develop positive view of self as a learner 	<ul style="list-style-type: none"> • Emphasize relational understanding and connections • Focus on big ideas and how they relate—guide new to known to extend learner’s background knowledge. • Specific Feedback

#4: Elaborate & Clarify

What Students are doing	What teacher is doing
<ul style="list-style-type: none"> • Productively noisy! • Student-led discussions, debating, summarizing, and evaluating ideas 	<ul style="list-style-type: none"> • Creates space for student voice and choice • Scaffolds learning to allow student-constructed products and understandings.

#5: Redundancy in Learning Patterns

What Students are doing	What teacher is doing
<ul style="list-style-type: none"> • Actively seeking connections, identifying patterns • Learn to apply strategies across time and settings. 	<ul style="list-style-type: none"> • Guide students to identify patterns in learning. • Structure learning with resources and familiar strategies • Create opportunities for students to communicate understandings.

#6: Relax, Reflect, Take Risks!



What Students are doing	What teacher is doing
<ul style="list-style-type: none"> • Comfortable to ask questions, share ideas. • Learning how to learn—less memorizing—more individual talents for processing and developing own understandings. 	<ul style="list-style-type: none"> • Co-Create risk-free learning environment. • Provide space for students to manipulate information and share their ideas.

#7: Strengths-Based with Social/Emotional Supports



What Students are doing	What teacher is doing
<ul style="list-style-type: none"> • Engaging in individual and cooperative learning group activities. • Highlight individual talents/strengths. • Apply strengths to work on areas to improve. • Support self and peers. 	<ul style="list-style-type: none"> • Structure design learning teams and cooperative learning activities. • Illuminate each student's strengths on regular basis. For example, "I noticed... and "What to work on..." • Ongoing Collaboration

#8: Develop Habits of Mind



What Students are doing	What teacher is doing
<ul style="list-style-type: none"> • Learns to push through challenges. • Understands that struggle and effort is a positive, natural part of the learning process. • Practice, practice, practice! 	<ul style="list-style-type: none"> • Incorporate growth mindset—and the power of yet! • Provides explicit teaching and modeling with practice for cognitive strategies • Provide specific, timely feedback.

#9: Sense of Personal Potency



What Students are doing	What teacher is doing
<ul style="list-style-type: none">• EACH student feels a sense of belonging• EACH student exudes a sense of value and influence.• Students are a part of a learning community that emphasizes the abilities of all learners.	<ul style="list-style-type: none">• Explicitly teaches social skills as needed--such as embedding a restorative justice process to shape a positive learning community.• Guides students positive decision-making skills.



Be the drop that starts a ripple effect!





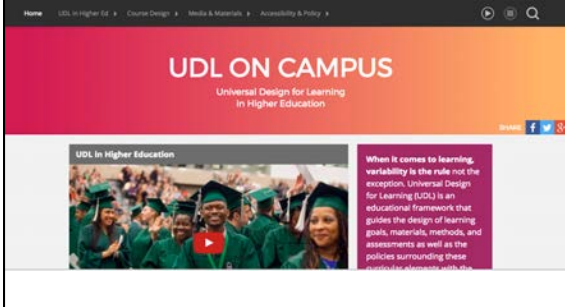
Thank You!

UDL Guidelines resources:



[Educator worksheet](#) [UDL Wheel](#)

[UDL on Campus](#)



UDL ON CAMPUS
Universal Design for Learning
In Higher Education

UDL In Higher Education

When it comes to learning, variability is the rule not the exception. Universal Design for Learning (UDL) is an educational framework that guides the design of learning goals, materials, methods, and assessments as well as the policies surrounding these practices.

Additional UDL Resources

- [Center for Applied Specialized Technology \(CAST\)](#) www.cast.org
[CAST Professional Publishing](http://castpublishing.org/books-media/)
<http://castpublishing.org/books-media/>
- [National Center for UDL:](#)
www.udlcenter.org
- [National Task Force on UDL:](#)
www.udl4allstudents.org

Additional UDL & Co-Teaching Resources

1. [Elevating Co-Teaching through UDL](#)
2. [How to Chisel a Teaching Masterpiece](#)
3. [Naturally Embed UDL in no time!](#)
4. [Sun, Fun, & UDL](#)
5. [UDL Theory and Practice](#)
6. [UDL NOW!](#)
7. [Your UDL Lesson Planner: The Step-by-Step guide for Teaching All Learners](#)

