

Universal Design for Learning (UDL)

Angela Kwok

Special Education Specialist

405-522-5036

Angela.Kwok@sde.ok.gov

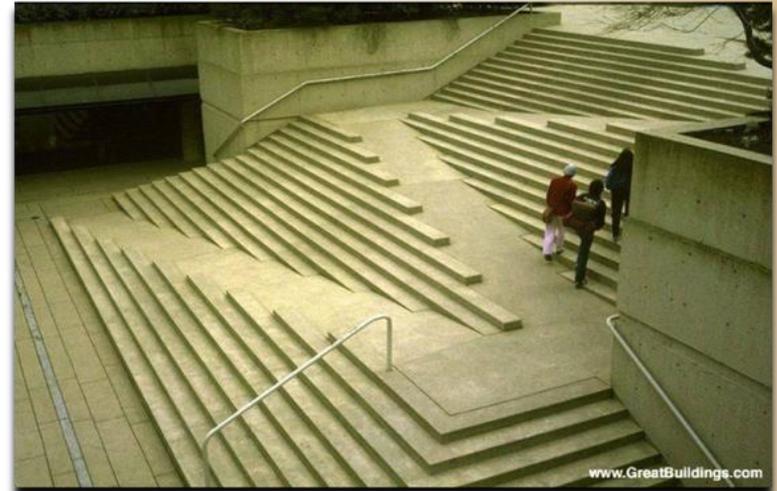
Session Objectives

Participants will be able to:

- Explain the history and purpose of Universal Design
- Recognize the three principles of Universal Design for Learning in practice
- Identify valuable resources available for UDL implementation in the classroom

Universal Design (UD)

UD originated in architecture and urban planning, as part of a movement to begin designing building and other structures that would accommodate the widest spectrum of users, including those with disabilities, right from the start.



http://www.architizer.com/en_us/projects/pictures/coeh-greensburg-prairie-ramp-house/3927/27147/#.UyYW1flqmrQ

UD Assumptions

- ✓ Not one size fits all – *but alternatives for everyone.*
- ✓ Not added on later – *but designed from the beginning.*
- ✓ Not access for some – *but access for everyone.*

Choose one & discuss



How does the item address a specific need?

How can designing for specific individuals benefit others?



Session Objectives

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- Explain the history and purpose of Universal Design

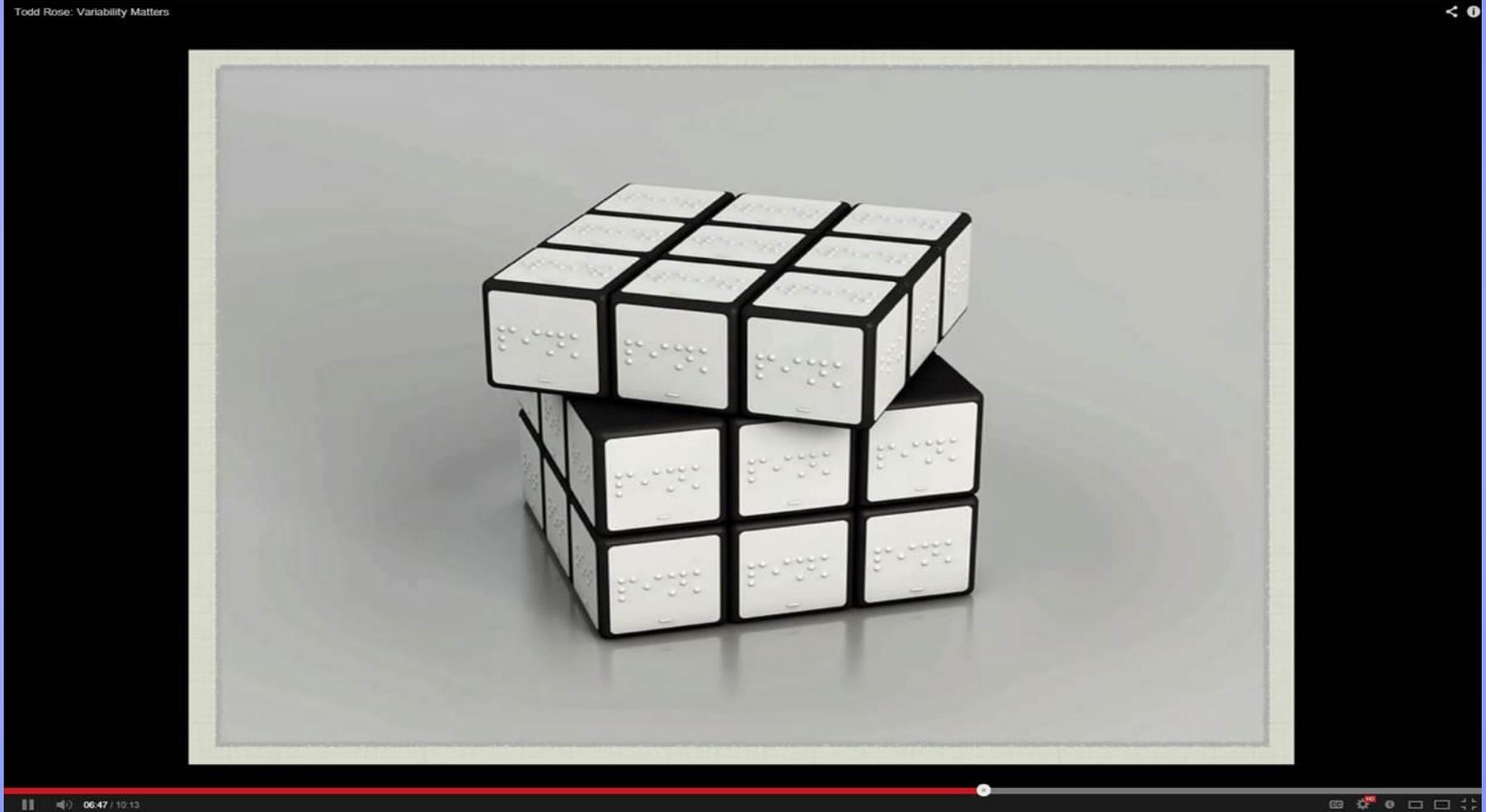
What is UDL?

Universal Design for **Learning** is a proactive design of curricula (educational goals, methods, materials, and assessments) that enable **all** individuals to gain knowledge, skills, and enthusiasm for learning.

UDL and the Learning Brain

All learners are **unique** and
universal does not mean
“one size fits all.”

Learner Variability



<http://www.youtube.com/watch?v=8WCInVjCEVM> 1:04-7:56

Universal Design for Learning

Reflect



- What resonated?
- Why is the design of a Rubik cube important for engagement and mastery?
- How do ideas of variability & context relate to your practice (curriculum or classroom)?

Definition

- Universal design for learning is a scientifically valid framework for guiding educational practice that:
 - (a) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and
 - (b) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.

(Higher Education Opportunity Act)

What is Universal Design for Learning?

- More than lecture format (one delivery method).
- Designing quality instruction from the onset of the lesson.
- Providing multiple opportunities for students to learn, acquire and demonstrate understanding of the material presented.
- Creating experiences for students regardless of disability to participate in the lesson through a variety of mediums.

INSPIRED BY A PUBLIC SCHOOL STUDENT WITH DISABILITIES



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CLEARING A PATH
FOR PEOPLE WITH SPECIAL NEEDS
CLEARS THE PATH FOR EVERYONE!

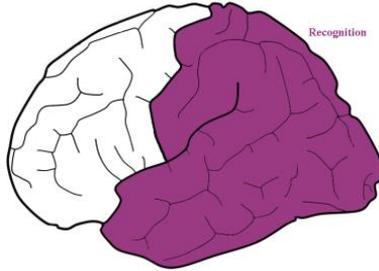
Universal Design for Learning

Why encourage UDL?

- Benefit to all learners (ELL, gifted, special ed).
- Healthy learning environment (respect).
- Positive experiences conducive to learning.
- Learners acquire skills in a medium of their strength/interest.
- Lessons are designed with integrity from the onset. Long term benefit. Purposeful planning for all rather than consideration of a few for short term.

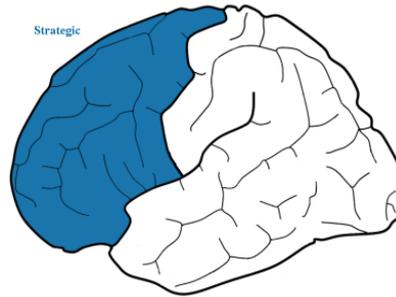
Brain Research

Recognition



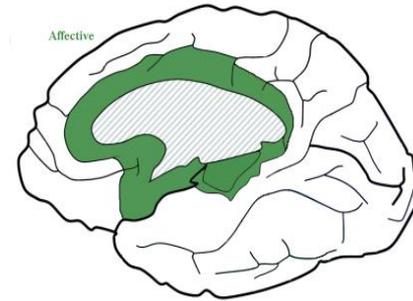
I. Provide Multiple Means of Representation

Strategic



II. Provide Multiple Means of Action and Expression

Affective



III. Provide Multiple Means of Engagement

What of learning

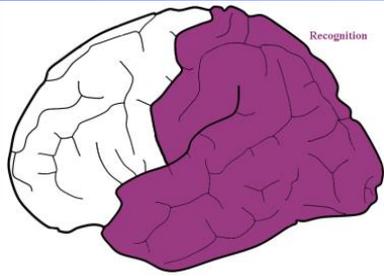
See, hear, read

How of learning

Task performance

Why of learning

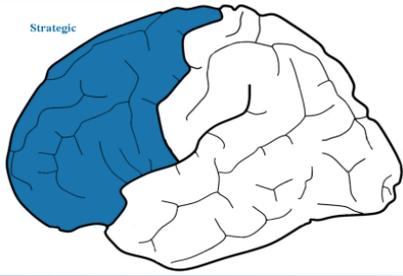
Motivation to learn



Recognition Networks

List the objects you recognize in this picture.





Strategic Network

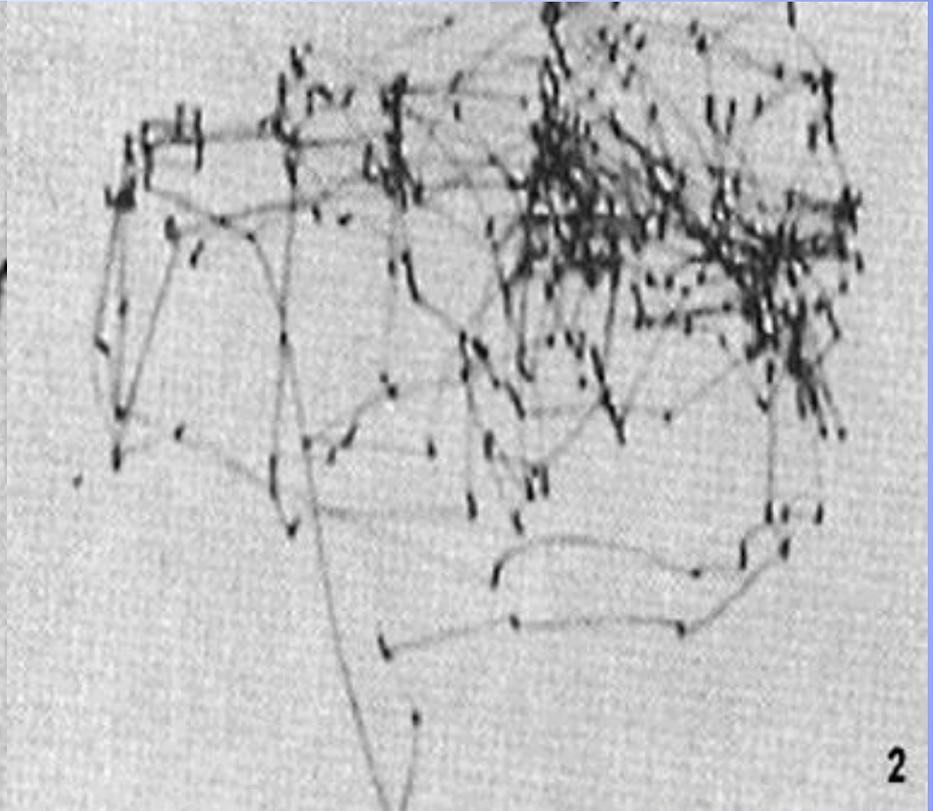
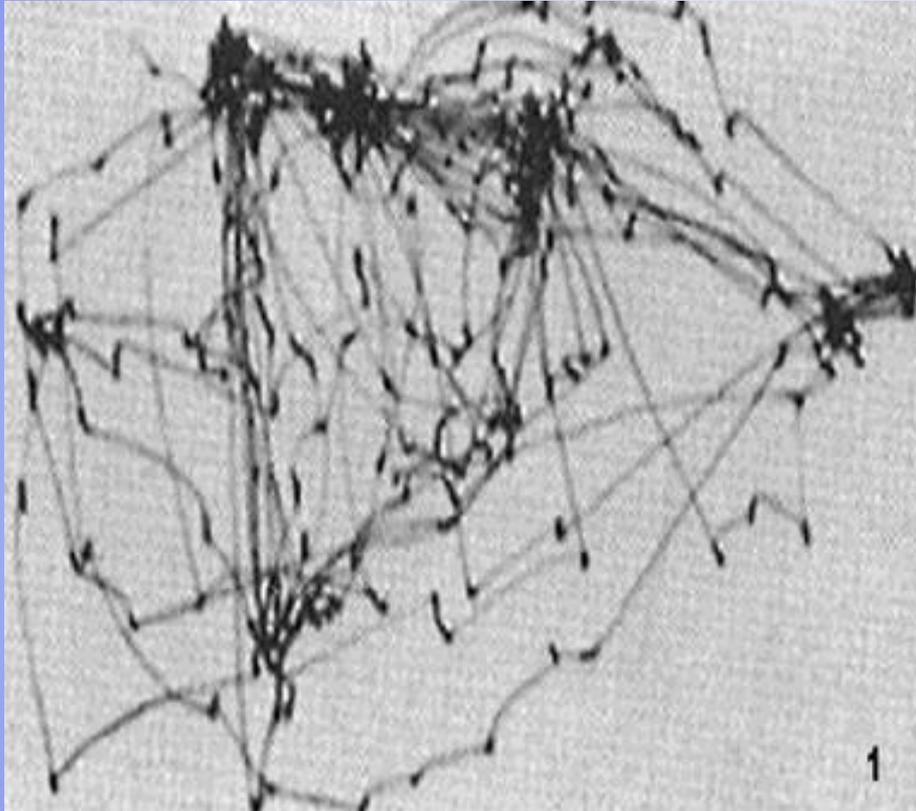
1. Ages? 2. Tasks?



Universal Design for Learning

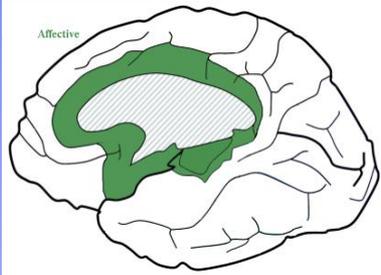
“Unexpected Visitor” Ilya Repin

Eye Movements



Identifying the ages of the people

Determining what the people were doing before the visitor arrived

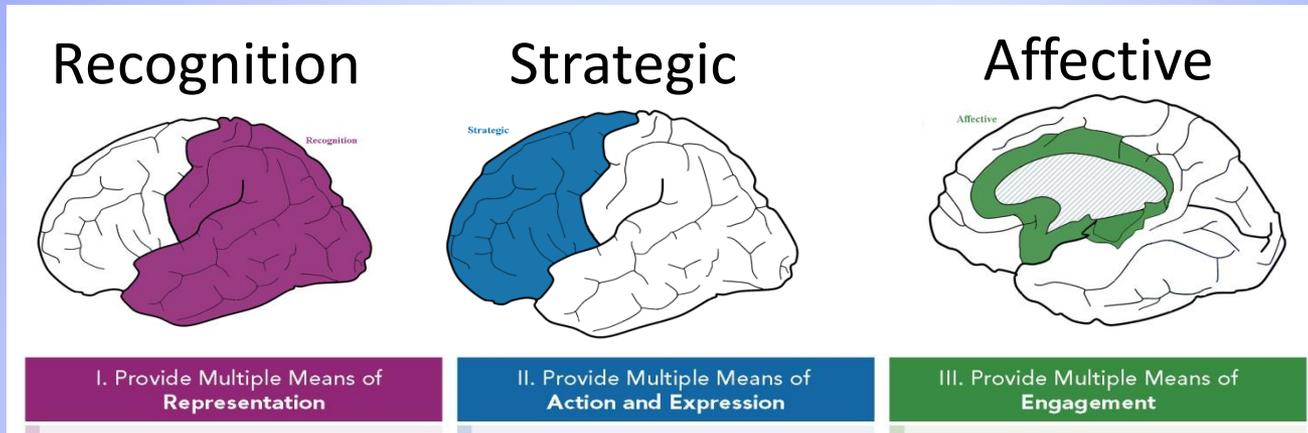


Affective Network

What grabs your attention?



Activity Summary



- All three brain networks are working when you do something as simple as view an image.
- Each network contributes something vital to the task.
- This is true of everything we do and everything we learn.

Three Principles of UDL

Video Series

The UDL Guidelines

Designing Curriculum that Works for All



NATIONAL CENTER ON
UNIVERSAL DESIGN *for* LEARNING

UDL Principles

Provide Multiple Means of Representation

- Options for Perception
- Options for Language/Symbols
- Options for Comprehension

Provide Multiple Means of Action and Expression

- Options for Physical Action
- Options for Expressive Skills/Fluency
- Options for Executive Functions

Provide Multiple Means of Engagement

- Options for Recruiting Interest
- Options for Sustaining Effort/Persistence
- Options for Self-Regulation

Provide Multiple Means of Representation

- Options for Perception
- Options for Language/Symbols
- Options for Comprehension

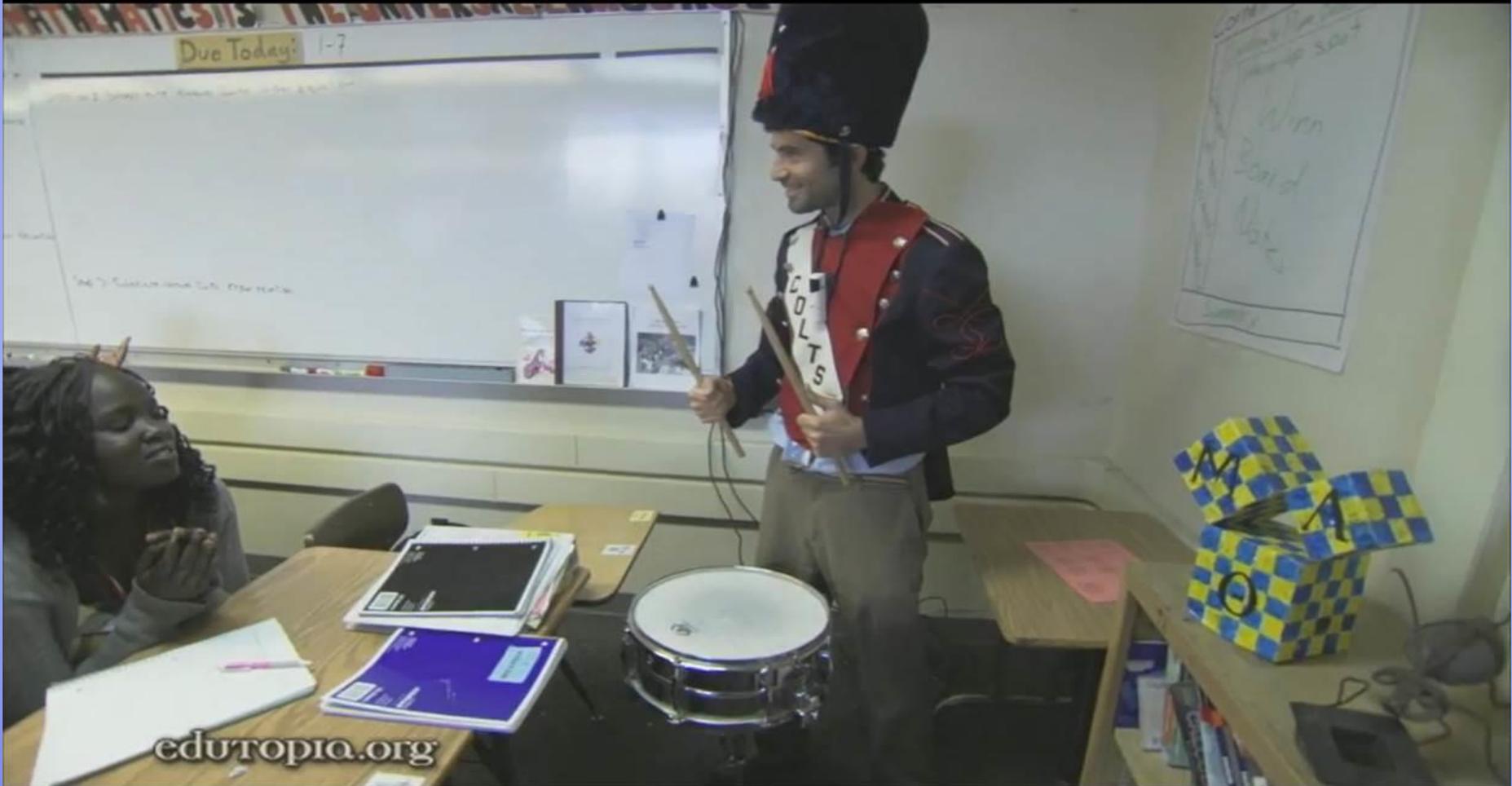


http://uiseries.uicenter.org/presentations/bach_to_gaga.html 21.11-25.00

Provide Multiple Means of Representation

- Options for Perception
- Options for Language/Symbols
- Options for Comprehension

Masterful Teacher: Jonathan Winn Makes Calculus Cool



edutopia.org

0:02 / 6:33



Provide Multiple Means of Representation

Supporting Recognition Learning

Provide alternative formats for presenting information.

- Provide multiple examples
- Highlight critical features
- Provide multiple media and formats
- Support background context

Provide Multiple Means of Action and Expression

- Options for Physical Action
- Options for Expressive Skills/Fluency
- Options for Executive Functions



Provide Multiple Means of Action and Expression

Supporting Strategic Learning

Provide alternative means for action and expression.

- ▣ Provide flexible models of skilled performance
- ▣ Provide opportunities to practice with supports
- ▣ Provide ongoing, relevant feedback
- ▣ Offer flexible opportunities for demonstrating skill

Provide Multiple Means of Engagement

- Options for Recruiting Interest
- Options for Sustaining Effort/Persistence
- Options for Self-Regulation



http://2.bp.blogspot.com/_6iyhNHjtl/TVBiBAuXp6I/AAAAAAABPc/iWdgoYbMUck/s1600/montessori_elementary_lg.jpg

Universal Design for Learning

Provide Multiple Means of Engagement

- Options for Recruiting Interest
- Options for Sustaining Effort/Persistence
- Options for Self-Regulation



<https://www.teachingchannel.org/videos/increase-engagement-and-understanding> 0:00-4:44

Provide Multiple Means of Engagement

Supporting Affective Learning

Provide alternative means for engagement.

- ❑ Offer choices of content and tools
- ❑ Offer adjustable levels of challenge
- ❑ Offer choices of rewards
- ❑ Offer choices of learning context

Universal Design for Learning (UDL)

- All 3 UDL principles are not intended to be incorporated into every lesson plan. Rather, they guide instruction over time.
- Some students may need additional support to meet an individual needs. Accommodations are still appropriate (i.e. Braille text).

Differentiation & UDL



For specific learners in the classroom based on knowledge of who those learners are.

Always based on data

Planning for all, even though future students are unknown

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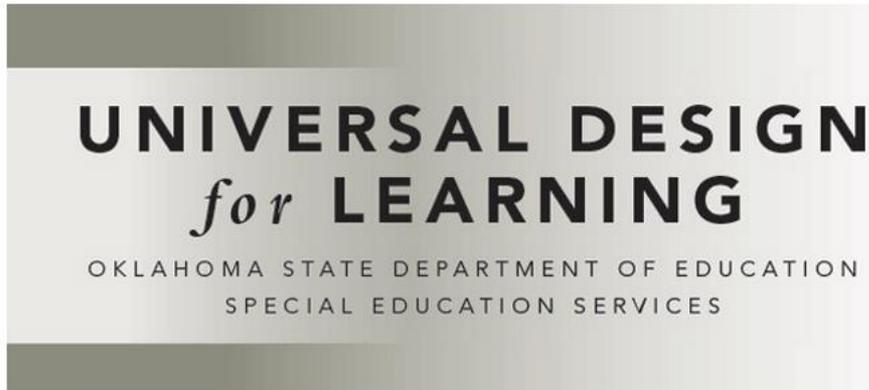
Change begins with you: One Lone Nut



<http://www.youtube.com/watch?v=fW8amMCVAJQ>

Resources

<http://ok.gov/sde/universal-design>



The term **UNIVERSAL DESIGN FOR LEARNING** means a scientifically valid framework for guiding educational practice that:

(A) provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and

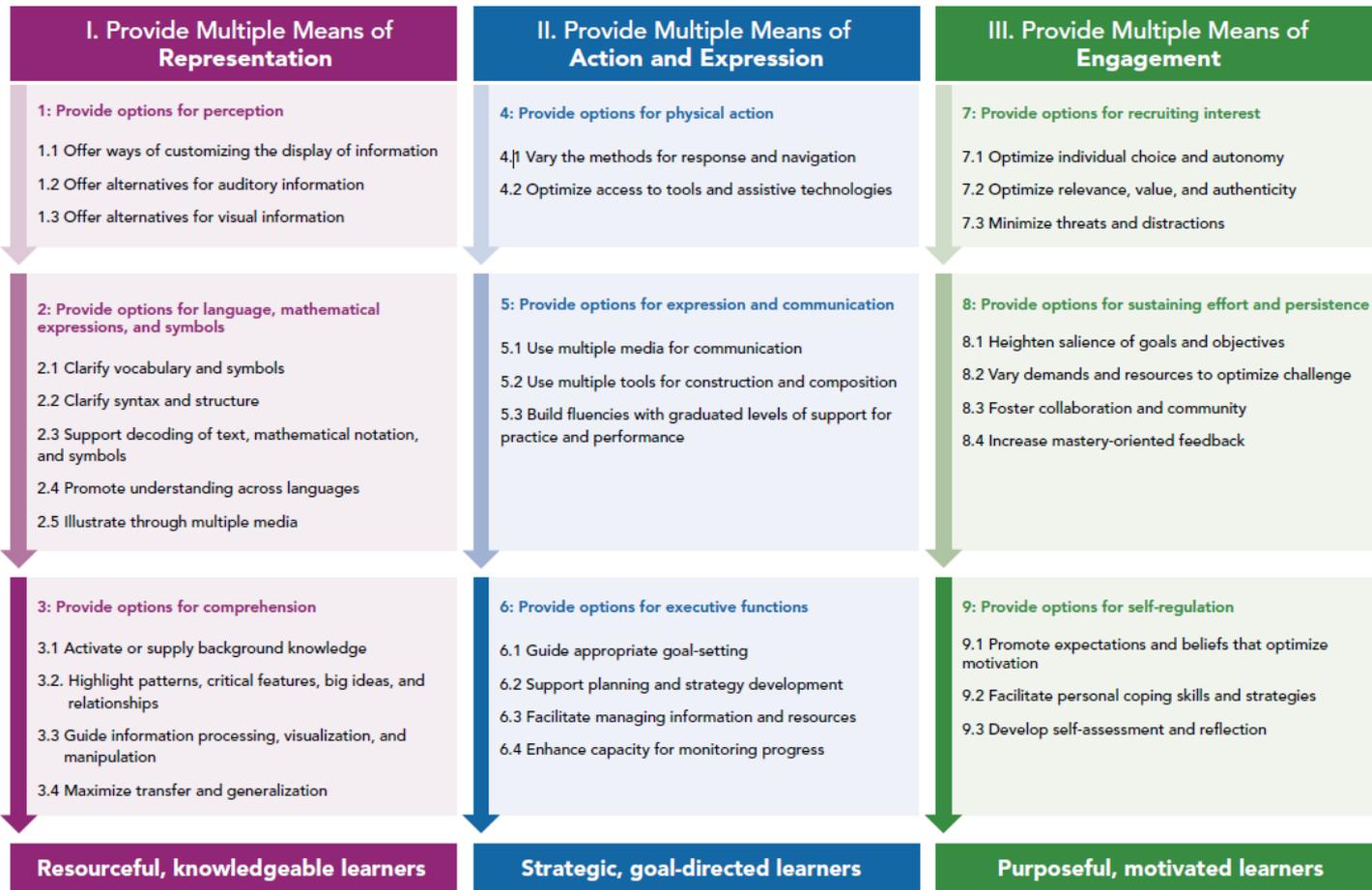
(B) reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.

Multiple Means of:		
Representation	Action & Expression	Engagement
•Perception •Language, Expression, and Symbols •Comprehension	•Physical Action •Expression and Communication	•Recruiting Interest •Sustaining Effort and Persistence •Self-Regulation

Key Components:

- Universal Design for Learning (UDL) refers to the process of making course concepts and skills attainable to a greater number of students, regardless of their differing learning styles, physical, sensory organizational and linguistic abilities.
- Rather than the “one-size fits-all” approach, UDL stresses flexible delivery of content, assignment, and activities.
- Designed from the beginning to be accessible and valid for the widest range of students
- UDL allows the learning process to be more accessible without singling out students with disabilities. Not all of our lowest performing students are on an IEP. Using the principles of UDL helps all students.
- Provide optimal standard assessment conditions

Universal Design for Learning Guidelines



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 APA Citation: CAST (2011). *Universal design for learning guidelines version 2.0*. Wakefield, MA: Author.

http://www.udlcenter.org/sites/udlcenter.org/files/updateguidelines2_0.pdf

Educator Worksheet

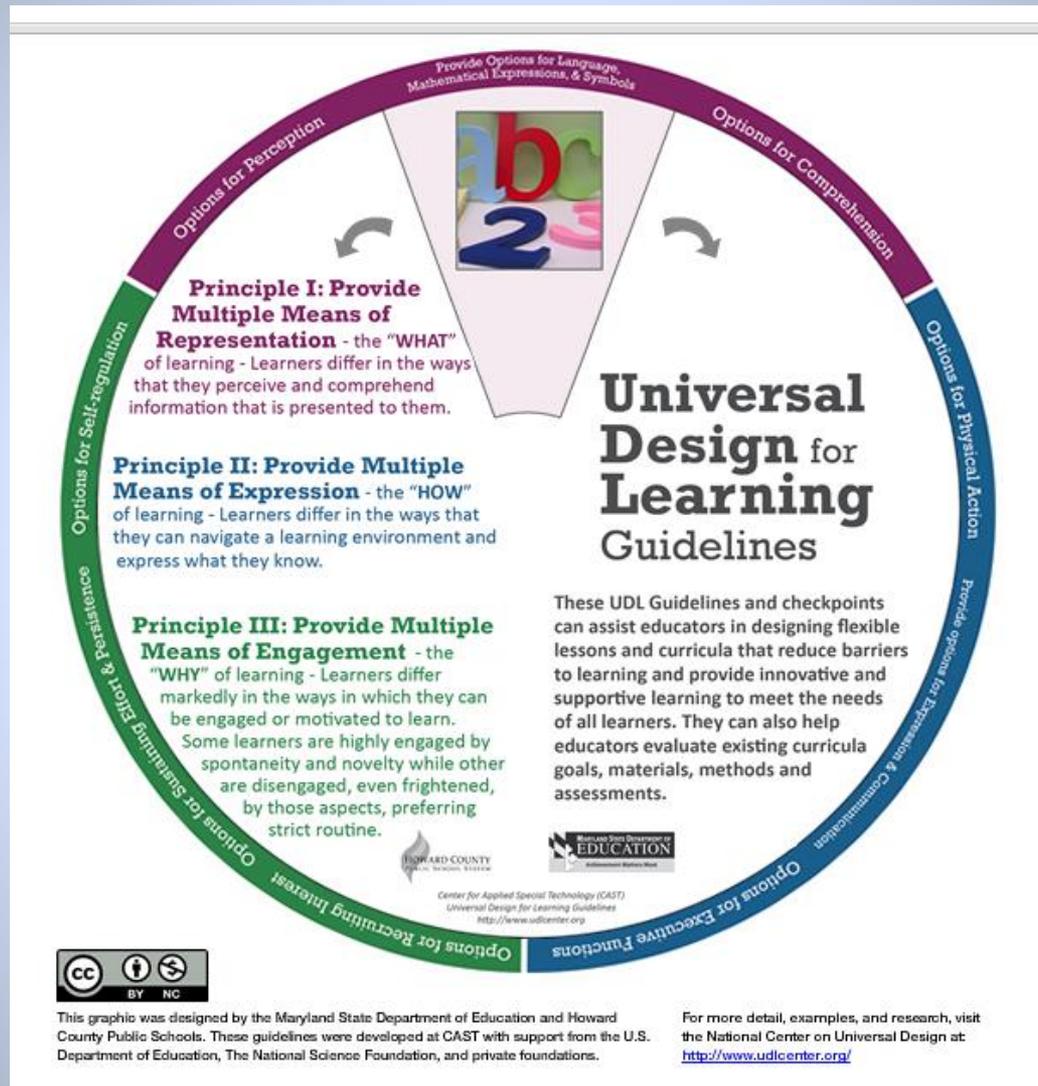
UDL Guidelines – Educator Worksheet - v. 2

I. <u>Provide Multiple Means of Representation:</u>	Your notes
1. <u>Provide options for perception</u>	
1.1 <u>Offer ways of customizing the display of information</u>	
1.2 <u>Offer alternatives for auditory information</u>	
1.3 <u>Offer alternatives for visual information</u>	
2. <u>Provide options for language, mathematical expressions, and symbols</u>	
2.1 <u>Clarify vocabulary and symbols</u>	
2.2 <u>Clarify syntax and structure</u>	
2.3 <u>Support decoding of text, mathematical notation, and symbols</u>	
2.4 <u>Promote understanding across language</u>	
2.5 <u>Illustrate through multiple media</u>	
3. <u>Provide options for comprehension</u>	
3.1 <u>Activate or supply background knowledge</u>	
3.2 <u>Highlight patterns, critical features, big ideas, and relationships</u>	
3.3 <u>Guide information processing, visualization, and manipulation</u>	
3.4 <u>Maximize transfer and generalization</u>	
II. <u>Provide Multiple Means for Action and Expression:</u>	Your notes

http://ok.gov/sde/sites/ok.gov.sde/files/Guidelines_2.0_Educator_Worksheet_0-2.pdf

Resources

Interactive Wheel



This graphic was designed by the Maryland State Department of Education and Howard County Public Schools. These guidelines were developed at CAST with support from the U.S. Department of Education, The National Science Foundation, and private foundations.

For more detail, examples, and research, visit the National Center on Universal Design at <http://www.udlcenter.org/>

Paper Wheel

Figure A

Diversity is the norm, not the exception, in schools today. When curricula are designed only to meet the needs of a few, those with different preferences, abilities, learning styles, or backgrounds, may fall behind. 21st century teaching and learning focuses efforts on ensuring that all individuals have opportunities to learn.

Universal Design for Learning (UDL) is a research-based framework that addresses learner diversity at the beginning of the design or planning effort. Using UDL to design academic goals and curriculum has the potential to dramatically change how we teach, how learners engage in learning, and how we measure what learners learn. Using UDL principles allows us to embed flexibility into all aspects of instruction from the beginning, rather than trying to retro-fit a rigid curriculum, set of instructional materials, or test for each student who happens to learn a different way. Educators should provide multiple ways to access resources and content so learners are given the opportunity to take charge of their engagement in learning.

The principles of Universal Design for Learning (UDL) can help us refine how we approach what we teach, what we teach and how we teach. Universal Design for Learning (UDL) is all about "how" we define goals, teaching methods, instructional materials and assessments. Innovative technologies and online resources can assist teachers when they modify instruction to better meet student needs. The UDL framework encourages creating flexible designs from the start that have customizable options, which allow all learners to progress from where they are and not where we would have imagined them to be. The options for accomplishing this are varied and robust enough to provide effective instruction to all learners

Through the use of the framework of Universal Design for Learning, educators can plan and deliver flexible and meaningful lessons that emphasize problem solving, project based learning, and student choice. Exposing novice learners to innovative content acquisition and application supports their development as expert learners. Expert learners are individuals who know how to learn, who want to learn, and who, in their own highly individual ways, are well prepared for a lifetime of learning.

The pedagogical, neuroscientific, and practical underpinnings of UDL are also discussed at greater length in books such as Teaching Every Student in the Digital Age by Rose & Meyer (ASCD, 2002), The Universally Designed Classroom (Rose, Meyer, & Hitchcock, Eds., Harvard Education Press, 2005), and A Practical Reader in Universal Design for Learning (Rose & Meyer, Eds., Harvard Education Press, 2006).

HOWARD COUNTY PUBLIC SCHOOL SYSTEM

MISSOURI STATE DEPARTMENT OF EDUCATION

Center for Applied Special Technology (CAST)
Universal Design for Learning Guidelines

Universal Design for Learning Guidelines

These UDL Guidelines and checkpoints can assist educators in designing flexible lessons and curricula that reduce barriers to learning and provide innovative and supportive learning to meet the needs of all learners. They can also help educators evaluate existing curricula goals, materials, methods and assessments.

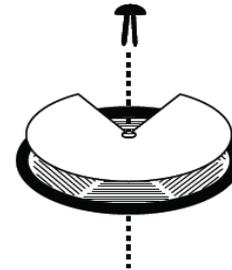
Principle I: Provide Multiple Means of Representation - the "WHAT" of learning - Learners differ in the ways that they perceive and comprehend information that is presented to them. **There is no one means of representation that will be optimal for all learners; but providing multiple options for representation is essential.*

Principle II: Provide Multiple Means of Expression - the "HOW" of learning - Learners differ in the ways that they can navigate a learning environment and express what they know. **There is no one means of expression that will be optimal for all learners; but providing multiple options for action and expression is essential.*

Principle III: Provide Multiple Means of Engagement - the "WHY" of learning - Learners differ markedly in the ways in which they can be engaged or motivated to learn. Some learners are highly engaged by spontaneity and novelty while other are disengaged, even frightened, by those aspects, preferring strict routine. **Learners have different preferences for what is engaging and motivating so providing multiple options for engagement is essential.*

Universal Design for Learning DIY Template

1. Cut out figure A
2. Cut out figure B
3. Fasten figure A on top of figure B with a mini round safety pin



Center for Applied Special Technology (CAST).
Universal Design for Learning Guidelines

<http://ok.gov/sde/sites/ok.gov.sde/files/UDL%20Wheel.pdf>

UDL Lessons/Resources

The screenshot shows the top navigation bar with the CAST UDL Exchange logo and links for BROWSE, BUILD, FEATURE GUIDE, SIGN IN, and CREATE AN ACCOUNT. The main content area features a welcome message, two introductory sections with a 'CREATE AN ACCOUNT' button, and a section titled 'UDL Exchange includes' with three columns: UDL Resources, UDL Lessons, and UDL Collections. Each column has an icon, a description, and a 'Browse | Build' link. A 'UDL Exchange Tools' section is partially visible at the bottom.

CAST UDL EXCHANGE [BROWSE](#) [BUILD](#) [FEATURE GUIDE](#) [SIGN IN](#) | [CREATE AN ACCOUNT](#)

Welcome to the CAST UDL Exchange!

What is CAST UDL Exchange?

It is a place to [browse](#) and [build](#) resources, lessons and collections. You can use and share these materials to support instruction guided by the UDL principles.

How Do I Get Started?

[Create an account](#) to begin working in UDL Exchange. Want more info before you begin? Check out the [Feature Guide](#) for more details.

[CREATE AN ACCOUNT](#)

UDL Exchange includes

		
UDL Resources Materials such as websites, documents, images, presentations, audio, video, etc. that support implementation of UDL. Browse Build	UDL Lessons Lesson plans that address the variability of all learners through the application of UDL. Browse Build	UDL Collections Sets of resources/lessons organized around a theme to support UDL practices. Browse Build

UDL Exchange Tools

<http://udlexchange.cast.org/home>

On-Line Graphic Dictionary/Thesaurus

English welcome submit

Nouns (2)

welcome
n. the state of being welcome; "don't outstay your welcome"

welcome
n. a greeting or reception; "the proposal got a warm welcome"

Verbs (4)

Adverbs (0)

Adjectives (1)

Fuzzynyms (10)

Synonyms (1)

Antonyms (2)

welcome

Parts of Speech	
<input checked="" type="checkbox"/> Nouns	2
<input checked="" type="checkbox"/> Verbs	9
<input type="checkbox"/> Adverbs	0
<input checked="" type="checkbox"/> Adjectives	9

Relationships	
<input checked="" type="checkbox"/> Fuzzynyms	10
<input checked="" type="checkbox"/> Synonyms	8
<input checked="" type="checkbox"/> Antonyms	2

receive welcome
welcome
come
welcome
welcome
welcome
welcome
congenial
appreciated
gratifying
pleasing
desirable
satisfying
lodge
accommodate
have
unwelcome
say farewell
invited

nouns
Definition:
a greeting or reception
Usage:
"the proposal got a warm welcome"

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