Universal Design for Learning (UDL) in the Elementary Classroom

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Questions for today

1. What is Universal Design for Learning (UDL)?

2. How does it assist elementary teachers in creating curriculum opportunities to meet the needs of all learners?

3. What are some examples and resources that can assist teachers in implementing the UDL framework into their classroom?

What is Universal Design for Learning (UDL)?

- It is a framework that provides All students equal opportunities to learn.
- It encourages teachers to design flexible curricula that meet the needs of all learners.
- Using UDL principles in general education classrooms makes curriculum and instruction accessible and engaging.
- Curriculum barriers are reduced; learning is supported; students gain knowledge, skills, and enthusiasm for learning; and their learning is validly assessed.  www.udlcenter.org
What is Universal Design?

Universal Design

Universal Design
One goal, many routes.

• Determining a present location
• Setting a destination or goal
• Selecting individualized routes

Universal Design for Learning

One goal, many routes.

• Where is each student?
• What are each student’s goals and objectives?
• What is a good route for each student?

The UDL framework is based in brain science and focuses on three broad brain networks.

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**Affective Networks**  
The “Why” of Learning  
How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

**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.

**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.
How does UDL assist elementary teachers in creating curriculum opportunities to meet the needs of all learners?

The principles of UDL

1) Provide multiple means of engagement to tap individual learners’ interests, challenge them appropriately, and motivate them to learn.

2) Provide multiple means of representation to give students various ways of acquiring, processing, and integrating information and knowledge.

3) Provide multiple means of action and expression to provide students with options for navigating and demonstrating learning. [www.udlcenter.org]

UDL Guidelines: Theory & Practice Version

www.udlcenter.org

Goal of UDL

Expert learners are:

✓ Purposeful and motivated
  - Eager to learn
  - Goal-directed
  - Sustain effort
  - Manage emotional reactions

✓ Resourceful and knowledgeable
  - Background knowledge
  - Activate background knowledge
  - Tool and resources
  - Transform new knowledge

✓ Strategic and goal directed
  - Formulate plans
  - Use strategies
  - Organize resources
  - Monitor progress
  - Strengths and weaknesses
  - Abandon ineffective plans


**Stimulate interest and motivation for learning**

**Present information and content in different ways**

**Differentiate the ways that students can express what they know**

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**How do the Guidelines assist a teacher in the classroom?**

- Not meant to be rules or procedures, but rather as a set of strategies that can be incorporated to overcome the barriers that often exist in many curricula.

- May serve as the basis for building in the options and the flexibility that are necessary to maximize learning opportunities, some of which a teacher may already be doing.

- Should not just be applied to one aspect of the curriculum or be used with only a few students. Used to evaluate and plan goals, methods, materials, and assessments for the purpose of creating a fully accessible learning environment for all.

- Should intentionally select and apply to the curriculum as appropriate.

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**Traditional vs. UDL Approach**

**Traditional Approach**

- Assumes that student diversity is a problem and that barriers to learning are inherent in the capacities of learners
- Assumes that the curricula is fixed: accommodations and modifications must be made in order to deal with student diversity
- Accommodations and modifications can result in lowered expectations and achievement for some learners.

**UDL Approach**

- Assumes that student diversity is the norm and that barriers to learning arise in learners’ interactions with inflexible “one size fits all” curricula
- Assumes that inflexible curricula is disabled: curricula needs to be designed or redesigned to meet a wide diversity of students from the start
- Curricula designed from the start that is both flexible and meets the needs of all students results in high expectations for all learners.
What are some examples and resources that can assist teachers in implementing the UDL framework into their classroom?
Videos that Demonstrate UDL Principles in Action
www.teachingchannel.org

- Principle I - Multiple Means of Engagement - elementary school students use silent signals.
  Silent Signals in the Math Classroom
- Principle II - Multiple Means of Representation – Circle Maps
- Principle III - Multiple Means of Action and Expression - Students use learning menus to provide students with independent exploration of concepts
  Learning Menus
UDL and Technology

- “The goal of education in the 21st century is not simply the mastery of content knowledge or use of new technologies. It is the mastery of the learning process. Education should help turn novice learners into expert learners. Universal Design for Learning (UDL) helps educators meet this goal by providing a framework for understanding how to create curricula that meets the needs of all learners from the start.” - National Center on Universal Design for Learning, UDL Guidelines-Version 2.0.

- “…technologies should not be considered to be the only way to implement UDL. Effective teachers should be creative and resourceful in designing flexible learning environments that address the variability of learners using a range of high-tech and low-tech solutions. The goal of UDL is to create environments in which everyone will have the opportunity to become expert learner, and the means to get there, be it tech or non-tech, should be flexible.” National Center on Universal Design for Learning, UDL and Technology.
The only specific mention of UDL in CCSS is included on “Application to Students with Disabilities”.

However, UDL does not only apply to students with disabilities. All students can benefit from the types of instruction used to reach learners “in the margins”, as the learning needs of all students vary greatly.

There are many concepts embedded throughout CCSS that are aligned with the UDL framework.

UDL should be used within inclusive general education classrooms.
Websites that Support Teaching Common Core Standards using UDL Principles

**English/Reading/Language Arts**

- **VisuWords** - Teaching rigorous vocabulary.
- **Learnzillion** - video lessons for specific standards grades 2-1.
- **Teaching Channel** - view seasoned teachers instructing specific standards for all grades.
- **Visual Dictionary** - Type in a word and get pictures to support the definition with Flicker, Google, and Yahoo Images.
- **Science Writer** - Text to speech support for creating all aspects of STEM Projects.
- **Text Compactor** - generates leveled text summaries.
- **Rewordify** - Simplifies vocabulary.
- **Vocabaloid** - grades 6-12 dictionary with definitions in video format.
- **Starfall.com** - A free public service to motivate children to read with phonics. For use with preschool, kindergarten, first grade, second grade, special education, homeschool and English language learners.

**Math**

- **Learnzillion** - video lessons for specific standards grades 2-1.
- **Illustrative Mathematics** - a creative program for teaching math standards.
- **K-5 Teaching Resources** - This site provides an extensive collection of free resources, math games, and hands-on Math activities aligned with the Common Core State Standards for Mathematics for grades K-5.
- **National Library of Virtual Manipulatives** - Web-based manipulatives for teaching math concepts.
- **Math Glossary** - An interactive site providing manipulatives that help define math terms for grades 1-12.

**Additional Sites**

- **Clearing House for Specialized Media and Translations (CSMT)** - The California Department of Education (CDE) CSMT produces accessible versions of textbooks, workbooks and literature books adopted by the State Board of Education.
- **Ability Tools**, formerly the AT Network, is California's Assistive Technology Act Program. They provide a variety of services for Californians with disabilities of all ages.
- **NIMAC** - Created by IDEA 2004, National Instructional Materials Access Center (NIMAC) is a federally funded, online file repository of source files in the NIMAS format. Here, authorized users can access thousands of K-12 NIMAS-formatted files that can then be converted to accessible content for students with disabilities.
Additional Sites

- Share My Lesson sponsored by the American Federation of Teachers (AFT)
- Discovery Education Discovery Education teaching resources
- Interactive Teaching Made Easy Teaching Resources from Laura Candler
- SMART Exchange SMART board lessons and ideas
- Read Write Think sponsored by the International Literacy Association
- National Geographic National Geographic teaching resources
- www.teachingchannel.org Teachers can watch, share, and learn diverse techniques to help every student grow.
- Kids USA A federal site for free educational resources.
- http://www2.ed.gov/free/index.html Another federal site. Though it retired in 2015, it offers links to other federal resources.
- http://www.cited.org/index.aspx Center for Implementing Technology in Education (CITED)

Resources

- www.udlcenter.org National Center on Universal Design for Learning
- http://udlwheel.mdonlinegrants.org/ UDL Wheel
- http://udltechtoolkit.wikispaces.com/ UDL Toolkit
- http://lessonbuilder.cast.org/ CAST UDL Lesson Builder
- http://udlexchange.cast.org/home UDL Exchange
- http://community.udlcenter.org/ UDL Connect
- http://udlseries.udlcenter.org/ Universal Design for Learning Series
- http://udleditions.cast.org/ UDL Editions by CAST
- http://bookbuilder.cast.org/ CAST UDL Book Builder

Thank you.