Introduction to Universal Design for Learning

Competency

Educator uses the Universal Design for Learning (UDL) guidelines and checkpoints to enhance their unit of study planning to reduce barriers to learning and support all students to have the ability to become expert learners.

Key Method

The educator reviews and uses the components of the three UDL principles to analyze a current unit of study and plan for future units of study.

Method Components

Universal Design for Learning

Universal Design for Learning (UDL) is a framework to improve and optimize teaching and learning for all students based on scientific insights into how humans learn (http://udlguidelines.cast.org/). UDL focuses on instructional planning with variability in mind. The outcome should be to reduce barriers to learning so that all students have ways to access, build, and internalize knowledge and skills.

The 3 UDL Principles

UDL is based on research founded in neuroscience. This research highlights the three primary neurological networks that impact learning. Successful teaching and learning utilizes all three principles simultaneously. The three principles are:

- Engagement
  Offers multiple means for learners to engage in the learning based on their interests and their zone of proximal development (ZPD)
- Representation

Offers multiple means for learners to acquire information and knowledge
- Action and Expression
Offers learners multiple means to demonstrate what they know

"Expert Learners"
From the UDL perspective, expert learners are
- Purposeful and Motivated,
- Resourceful and Knowledgeable, and
- Strategic and Goal-Directed

UDL Guidelines
The UDL guidelines is a tool used in the implementation of Universal Design for Learning, a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. These guidelines offer a set of concrete suggestions that can be applied to any discipline or domain to ensure that all learners can access and participate in meaningful, challenging learning opportunities.

These guidelines are directly aligned with the neural pathways.
- Affective Networks – Provide Multiple Means of Engagement
- Recognition Networks – Provide Multiple Means of Representation
- Strategic Networks – Provide Multiple Means of Action & Expression

Using the UDL Guidelines
The UDL framework includes myriad research-based strategies. It is unreasonable to think that one could "UDLize" every single lesson of everyday and be effective. Such an approach to lesson planning would overwhelm the designer as well as the students who would be participating in the lesson.

A holistic approach to incorporating UDL has been beneficial to many educators. Begin with a unit of study. It may cover three days; it may cover three weeks. The UDL guidelines will help you reduce barriers to learning and support you in providing multiple means of engagement, representation, and action & expression.

Supporting Rationale and Research

Al-Azawei, Ahmed, Serenell, Fabio, & Lundquist, Karsten. Universal Design for Learning (UDL): A Content Analysis of Peer-Reviewed Journal Papers from 2012 to 2015. Retrieved July 17, 2018, from
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Caldwell, B., Cooper, M., Guarino Reid, L. & Vanderheiden, G. Web accessibility guidelines 2.0: Guideline 1.3 Adaptable: Create content that can be presented in

different ways (for example simpler layout) without losing information or structure. Retrieved July 17, 2018, from
https://www.w3.org/TR/WCAG20/#content-structure-separation

Craig, S. D., Gholson, B., & Driscoll, D. M. (2002). Animated pedagogical agents in multimedia educational environments: Effects of agent properties, picture features, and redundancy. *Journal of Educational Psychology*, 94(2), 428-434. Retrieved July 17, 2018, from
https://www.researchgate.net/publication/232517863_Animated_pedagogical_agents_in_multimedia_educational_environments_Effects_of_agent_properties_picture_features_and_redundancy

McGhie-Richmond, Donna; Sung, Andrew N. (2013). Applying Universal Design for Learning to Instructional Lesson Planning. *International Journal of Whole Schooling*, v9 n1 p43-59. Retrieved July 17, 2018 from
https://files.eric.ed.gov/fulltext/EJ1016798.pdf

Stipek, D. J., & Weisz, J. R. (1981). Perceived Personal Control and Academic Achievement. *Review of Educational Research*, 51(1), 101. Retrieved July 17, 2018, from https://scholar.harvard.edu/files/jweisz/files/1981c.pdf

Resources

Template
Personal UDL Graphic Organizer

Universal Design for Learning
UDL Guidelines

UDL at a Glance. 4-minute video on YouTube

How Humans Learn
UDL & The Learning Brain

The Myth of Average, 18-minute YouTube video

Variability Matters, 4-minute YouTube video

Expert Learners
What is an expert learner? 5-minute YouTube video

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[Top 5 UDL Tips for Fostering Expert Learners](#)

Universal Design for Learning Guidelines
[Graphic organizer setting forth the three UDL principles](#)

Reducing Barriers
[UDL: Reducing Barriers to Learning, 3-minute YouTube video](#)

Submission Guidelines & Evaluation Criteria

To earn the micro-credential, you must receive a passing score in Parts 1 and 3 and receive a proficient score for all components in Part 2.

Part 1. Overview Questions (Provides Context)

(500- to 600-word limit)

Please answer the following contextual questions to help our assessor understand your current situation. *Please do not include any information that will make you identifiable to your reviewers.*

1. What is your current educational context? Please include:
    Your
    -   grade levels served
    -   content or specialty area
    -   previous experiences with UDL
    -   any other information that you deem relevant to understanding the context in which you have been/will be implementing UDL
    Your School
    -   type of school (public, charter, private)
    -   urban, suburban, or rural location
    -   any other information that you deem relevant to understanding the context of your school setting
    Your Students
    -   demographics of the student population (general education, students with exceptionalities, English language learners, etc.)
    -   specific examples of actions/attributes that indicated to you that exploring Universal Design for Learning could lead to improving outcomes for these students
    Please be sure to protect student identity; e.g., use numbers instead of names or identify by groups.

2. Share two actions you anticipate doing with the knowledge and skills you gain through participation in this micro-credential work.

Passing: Responses provide specific information to justify the reason for choosing this micro-credential to address specific needs of both the teacher and the students. Educator includes two anticipated actions he/she will take as a result of learning more about UDL.

Part 2. Work Examples/Artifacts/Evidence

To earn this micro-credential, please submit the following **two artifacts** as evidence of your learning. *Please do not include any information that will make you or your students identifiable to your reviewers.*

Artifact 1: Personal UDL Graphic Organizer and Analysis
After reviewing the UDL guidelines website (see Resources section) use the personal UDL graphic organizer to determine the levels at which you regularly include UDL strategies in lesson planning.

TIP: On the UDL guidelines website, you can click on each checkpoint to learn more about strategies and the research behind those strategies

Analyze your completed graphic organizer then answer the following questions:

- Do the strategies that you regularly employ tend to reside more at the access, build, or internalize level? Why do you think that is or is not? **(50-100 words)**
- Why do you, or what in your experience has influenced you to, rely often on these particular strategies? **(200-300 words)**
- Think of the diversity of students you currently serve. What might be the potential impact on students when strategies from other levels or guidelines are incorporated into the unit of study? **(150-300 words)**

Artifact 2: Enhanced Unit of Study and Rationale
Complete the following steps for this artifact:

1. Select a unit of study that you will be teaching in the near future. You may use one that you have stored electronically and edit it or use a hard copy that you will annotate and scan for submission.
2. Analyze your unit of study, looking specifically for strategies that are included in the UDL guidelines.
3. Use the annotation key below to highlight strategies and note the level of learning each strategy supports.

Annotation Key:

Strategies	Level of Learning
• Green = Engagement strategies • Purple = Representation strategies • Blue = Action & Expression strategies	• A = Access • B = Build • I = Internalization

4. After completing the analysis, think about the UDL strategies you identified in your plan and add **three** additional strategies to your unit of study. *Use handwritten annotations in the margins (if using a hard copy) **OR** insert and underline (if using a digital copy) to identify the additional strategies (e.g., create cooperative learning groups with clear goals, roles, and responsibilities).*

5. After adding the strategies, label the strategies and levels of learning using the annotation key above.

Follow the guidelines below and provide a rationale for each strategy:

- Restate the strategy
- Explain why this strategy was chosen: what barrier to learning it addresses, what learner variability it addresses in your classroom
- Predict student response to incorporation of this UDL strategy

Include your rationale for strategy as part of your Enhanced Unit of Study document for review.

Part 2. Rubric

	Proficient	Basic	Developing
Artifact 1: Personal UDL Graphic Organizer and Analysis	11 or more teaching strategies are listed in the corresponding cells on the graphic organizer	8-10 teaching strategies are listed in the corresponding cells on the graphic organizer Responses to all three questions are	7 or fewer teaching strategies are listed in the corresponding cells on the graphic organizer All three questions are not answered

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	Responses to all three questions show a depth of understanding of the principles and purpose of UDL There is a clear and logical rationale for each question Includes details and examples from classroom experience	included but lack depth Responses may be lacking in depth Rationale may not be evident Details and examples from classroom experience may be missing	Rationale not evident Details not included
Artifact 2: Enhanced Unit of Study and Rationale	All strategies in the current unit of study are highlighted and coded as per the UDL principles Three new strategies are inserted or annotated into the unit of study and labeled with UDL guideline and level All three strategies are restated Each strategy is followed with an explanation as to the barrier to learning it addresses and how that strategy addresses learner variability of the	Some strategies in the current unit of study are highlighted and coded as per the UDL principles Fewer than three new strategies are inserted or annotated into the unit of study and labeled with UDL guideline and level Not all three strategies are restated Each strategy is followed with an explanation as to the barrier to learning it addresses and how that strategy addresses learner variability of the students in the classroom	Few strategies in the current unit of study are highlighted and coded as per the UDL principles, no strategies are present. All three strategies are not restated Strategies are not followed with an explanation as to the barrier to learning it addresses or how that strategy addresses learner variability of the students in the classroom. Predictions of student response to incorporation of each UDL strategy are not present.

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	students in the classroom Predictions of student response to incorporation of each UDL strategy are thoroughly developed with rationale for prediction	Predictions of student response to incorporation of each UDL strategy are generalized	

Part 3 Reflection

(300- to 500-word limit)
Use the word count as a guide to write a personal reflection about your work on this micro-credential. For tips on writing a good reflection review the following resource:

How Do I Write a Good Personal Reflection?

Please do not include any information that will make you identifiable to your reviewers.

1. After completing this micro-credential, how do you see your practice changing as you plan future units of study? Please give examples from one future unit of study.
2. As you change your approach to unit planning, what do you foresee as the impact on student learning and how does that connect to the actions/attributes you described in relation to all of the students you serve (overview question 2)?

Passing: Reflection provides evidence that this activity will support the educator in moving forward to incorporate more UDL strategies to reduce learning barriers. Educator clearly describes the anticipated change in student learning and gives examples based on the actions/attributes cited in overview question 2.