

UDL Guideline #2: Provide Multiple Means of Representation

Explanation

This guideline addresses the “What” of learning providing:

- Options for Perception
 - Offer ways of customizing the display of information
 - Offer alternatives for auditory information
 - Offer alternatives for visual information
- Options for Language & Symbols
 - Clarify vocabulary and symbols
 - Clarify syntax and structure
 - Support decoding of text, mathematical notation, and symbols
 - Promote understanding across languages
 - Illustrate through multiple media
- Options for Comprehension
 - Activate or supply background knowledge
 - Highlight patterns, critical features, big ideas, and relationships
 - Guide information processing and visualization
 - Maximize transfer and generalization

This guideline is similar in approach to [Multimedia Learning Theory](#) (Richard Mager), [Scaffolding](#) (Lev Vygotsky), and [Levels in the Cognitive Domain or Bloom’s Taxonomy](#) (Benjamin Bloom). Examples begin on the next page.

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UDL Representation Examples

Here are some examples of the UDL Representation guideline used in the classroom:

Example #1

Technology	Method	Explanation	Synchronous	Asynchronous
Online Classroom (Canvas)	Blended /Hybrid/ Online	Moving content delivery into a digital format allows for multi-modal representations of content and use of assistive technologies	<p>Sharing videos, captioning, speech-to-text and text-to-speech in break-out rooms.</p> <p>Resources:</p> <ul style="list-style-type: none"> • YouTube • PlayPosit • EdPuzzle 	<p>Learners post experiences and goals; teacher-created scenarios.</p> <p>Resources:</p> <ul style="list-style-type: none"> • Canvas Discussions • Blogs • Flipgrid
Physical classroom	Face to Face	Encourage sharing by providing a back channel where learners can make comments and pose questions to each other as an ongoing part of course communications.	<ul style="list-style-type: none"> • Google Q&A • Padlet • Google Hangouts Meet • Canvas Chat 	<ul style="list-style-type: none"> • Voicethread • TES Teach • Social Media

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Example #2

Technology	Method	Explanation	Data Type	Data Use
Starfish Canvas Access Reports	Student Performance Data	Courses can be designed to give instructors information about the content students access and the ways in which these choices relate to other factors such as persistence or achievement.	<p>Login data: number of students attending synchronous webinars/chats</p> <p>Page view counts that show how many times students have accessed specific course content.</p> <p>Activity logs, including which resources are selected</p> <p>Forum posts, especially if these utilize various modalities (video, audio, etc.)</p> <p>Resource:</p> <ul style="list-style-type: none"> • Total Activity column • student analytics • Student interactions report 	<p>Data obtained can provide information that guides how an instructor decides to structure their course and illustrate concepts through multiple media. For example, an instructor might:</p> <ul style="list-style-type: none"> • Include more tutorial videos if students seem to prefer this type of media or if accessing this type of media is strongly correlated to achievement, or • Highlight beneficial resources (e.g., an online glossary tool) periodically in communications with students. Consider building these resources into subsequent course units or modules as prominent features if they seem to benefit even a small number of students.

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Example #3

Approach	Method	Explanation	Adjustment	Support
Emotion & Learning	Teacher directed	Offer choice when possible and allow for students to select varying degrees of difficulty within an activity to find the right balance of demands and resources.	<p>Use diagrams, photos, storyboard and multimedia in addition to lecture, readings and other text-heavy resources.</p> <p>Allow for tools text-to-speech tools, especially for students with dyslexia and English Language learners.</p>	<p>Pre-teach critical information and emphasize relationships between concepts through multiple representations.</p> <p>Model ways to solve new problems with prior knowledge and student learning by providing supported opportunities.</p>

Example #4

Approach	Method	Explanation	UDL Considerations	Examples
Syllabus	Teacher-created	Be explicit about the ways in which students can access content (e.g., textbook, slides, course website, videos) where to find background information and multiple examples.	<p>Include a variety of materials beyond printed text to increase the options of representation and increase engagement.</p> <ul style="list-style-type: none"> • YouTube videos • Blogs • Accessible slide presentation • OERs • Websites that feature real-world applications and content • Accessible and downloadable 	<p>There are a variety of materials for the course:</p> <ul style="list-style-type: none"> • Textbook: detail where students may find an accessible version • Course websites • Student contributions • etc.