UNIVERSAL DESIGN TECHNIQUES

In the following pages, you will learn about a number of strategies that you might use to design instruction to support learner variability in your classroom. This is not an exhaustive list of strategies — there are likely other strategies that will accomplish the same goals — but this is a good place to start.

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UNIVERSAL DESIGN TECHNIQUES THAT SUPPORT ENGAGEMENT

E1. What do I do if my students appear disinterested, are not invested, or seem to be lacking confidence?

According to the UDL framework, if students are disinterested in the material, not invested in the work, or lack confidence in their ability to be successful, it’s important to provide choices and scaffolds to engage and interest all learners (sub-goal E1). The following UDL techniques can be used to eliminate barriers to engagement caused by disinterest, a lack of investment, or a lack of confidence.

A. Build student interest in the material by:
   a. Building relationships with the students in order to get to know their interests. Build these interests into the lesson content
   b. Hooking students into the day’s lesson using a story that aligns with the students’ personal interests
   c. Offering a choice of materials to engage with, so that students can select based on interest. For example, you might let students choose two of three do-now items, choose a strategy for conducting research (e.g., at the library, via video, or via internet), or choose the type of paper they would like to use to write an essay

B. Invest the students in the content by:
   a. Stating a clear purpose at the beginning of the lesson
   b. Introducing relevant problem situations that match scenarios the students encounter in their own lives

C. Make the students feel comfortable participating by:
   a. Cueing students before calling on them to increase predictability
   b. Incorporating call and response into your lesson to increase anonymity
   c. Giving students the opportunity to share with a peer or the teacher or write answers down before sharing out whole-group

E2. What do I do if my students are having trouble sustaining effort or motivation because the lesson is too easy or difficult for them?

According to the UDL framework, if the lesson is too easy or difficult for your students, it’s important to adjust the level of challenge in order to help students sustain effort and motivation (sub-goal E2). The following UDL techniques can be used to eliminate barriers to engagement caused by a lesson that is too hard or too easy for students.

A. Strategically group scholars with others at different instructional levels so that they can support a struggling peer or benefit from the strengths of a peer

B. Provide alternative tools and scaffolds for completing the assignment that align with your students’ needs as well as the goal of the lesson. † This might look like:
   a. Providing calculators when computation isn’t the goal of the lesson or take the calculator away to increase challenge
b. Providing tables or graphs for students to complete, or asking students to generate their own table or graph to increase challenge

c. Providing templates with various amounts of information filled in. You might include sentence stems and examples to support your struggling students, or take these out to support more advanced students.

d. Increasing/decreasing text difficulty when you ask students to learn by reading.

C. Plan frequent opportunities for targeted feedback throughout your lesson, so that students know what they are doing well and what they can improve upon, by:

   a. Strategically seating students in a way in which it’s easy to circulate
   b. Checking in with each student once and then circling back around frequently
   c. Setting an academic focus with students and providing feedback regarding just that focus until progress is made in that area

E3. What do I do if my students are struggling to control their emotions or maintain focus over time?

According to the UDL framework, if students are struggling to control their emotions or maintain focus over time, it’s important to provide scaffolds to help your students self-regulate their emotions and motivation (sub-goal E3). The following UDL techniques can be used to eliminate barriers to engagement caused by difficulty self-regulating emotion and motivation.

A. Reduce distractions, by:
   a. Seating students away from major distractions like doorways, pencil sharpeners, certain other students, etc.
   b. Testing students in a separate location, free from distractions

B. Teaching students coping skills that will help them focus and work through overwhelming situations, such as:
   a. Taking brain breaks as needed by taking a walk around the classroom or using the bathroom
   b. Recognizing when they are hungry or thirsty and eating or drinking to address this need
   c. Reducing anxiety by holding a fidget toy, doodling, using relaxation techniques, or deep breathing
   d. Processing emotions by talking to someone or writing in a journal +*

C. Create a calming space in your classroom where students can go when they are frustrated and/or to work when they need a quiet space+ *

D. Teach students to set and monitor progress toward self-regulatory goals. To support them:
   a. Strategically seat students in easy-to-monitor spots in the classroom
   b. Provide multiple opportunities for behavioral feedback throughout the lesson so that students know what they are doing well and what they could be doing better. You can provide this feedback by:
      i. Putting behavior cue cards or post-its on students’ desks
      ii. Putting stickers or tallies on individualized behavior charts throughout the course of the lesson
   c. Provide self-reflection opportunities so that students can self-evaluate their behavioral performance at the end of the lesson
E. Support students in collaborative conflict resolution with peers

UNIVERSAL DESIGN TECHNIQUES THAT SUPPORT UNDERSTANDING

U1. What do I do if my students are having difficulty accessing the content, which is leading to factual misunderstandings?

According to the UDL framework, if students are having difficulty accessing the content, leading to factual misunderstandings, it’s important to let them choose how to receive new information (sub-goal U1). The following UDL techniques can be used to eliminate barriers to understanding caused by difficulty accessing the content.

A. **Provide written information in addition to other sources** if students struggle to process oral or visual information, by:
   - Keeping Closed Captioning ON when showing videos or TV segments or providing transcripts so that students can read the information as well as listening to it
   - Providing key directions and questions in writing on a slide or handout, in addition to stating them orally, so that students can read the information as well as listening to it

B. **Provide auditory information in addition to other sources** if students struggle to process written or visual information, by:
   - Providing access to text-to-speech software, audio recordings of written text, or a teacher or peer who can read aloud, so that students can listen while following along in the text
   - Reading key directions and questions aloud, so that students can listen while following along on a slide or handout

C. **Provide visual information in addition to other sources** if students struggle to process written or oral information, by:
   - Including visual images such as video or photography alongside written or oral content
   - Posting visual reminders of behavioral expectations in addition to stating them orally or posting them in writing

D. **Offer students a variety of sources to learn from** so that they can choose the one that is easiest for them to access. This might look like:
   - Offering texts at various levels on the same content
   - Offering text, video, or infographics on the same content

U2. What do I do if my students are confused by the specific language, symbols, or expressions included in the lesson?

According to the UDL framework, if students are confused by the specific language, symbols, or expressions included in the lesson, it’s important to provide scaffolds to help all learners understand language, symbols, and expressions (sub-goal U2). The following UDL techniques can be used to eliminate barriers to understanding caused by confusion about these lesson components.
A. Support understanding of vocabulary by:
   a. Pre-teaching important vocabulary to students prior to the lesson
   b. Giving students access to glossaries, dictionaries, or other reference materials with key definitions in/on them
   c. Repeatedly exposing students to important vocabulary over the course of the lesson

B. Support understanding of language by:
   a. Offering material in alternate languages or providing translation supports
   b. Providing visual representations of vocabulary, symbols, or expressions to make them more concrete (e.g., you might provide an image to accompany the definition of a vocabulary word, or you might use manipulatives to represent the number 301)

C. Clarify unfamiliar syntax by:
   a. Explaining how symbols relate in a formula
   b. Explaining how ideas relate in a diagram, graph, or illustration

U3. What do I do if my students have a limited understanding of the content that I’m teaching?

According to the UDL framework, if students have a limited understanding of the content you’re teaching, it’s important to provide scaffolds to help all learners reach higher levels of comprehension (sub-goal U3). The following UDL techniques can be used to eliminate barriers to understanding resulting in surface-level comprehension.

A. Help students build schema on a topic by giving students relevant background information. For example:
   a. You might give the students a “schema builder,” which is a text box that includes key information related to a topic about which the students are going to learn, in advance of the lesson.
   b. You might give the students an article or short text related to the topic you are going to be studying

B. Guide information processing by:
   a. Giving students a graphic organizer or note-taking template that focuses them on the key evidence/ideas so that your students can reference this template when asked to synthesize this information
   b. Charting key evidence/ideas throughout the lesson so that students can reference this chart when asked to synthesize this information
   c. Giving students a text with key pieces of evidence highlighted so that they know what to focus on
   d. Telling students the specific part of the text to reread in order to answer a question. For example, you might provide page numbers and/or paragraph numbers next to each question.

C. Guide visualization by:
   a. Using models to highlight critical features, big ideas, and relationships (e.g., diagrams, manipulatives, or concept maps)
   b. Prompting students to state what they see, hear, smell, taste, and feel about a given topic
   c. Prompting students to act out a narrative, problem, concept, or relationship
D. Support retention and transfer of new information by:
   a. Helping students make connections to what they already know by activating their background knowledge on a topic. For example:
      i. You might give students a KWL chart so that they can record what they already know and what they wonder about before reading. Then, at the end of the lesson, you might have them fill in what they learned about the topic.
      ii. You might give students a related image and ask them to discuss what they see and already knows about that image prior to introducing the content.
   b. Using mnemonic aids or songs to teach the content so that your students are able to use the mnemonic or song to support recall of the steps in the process and apply them independently.
   c. Providing opportunities for distributed practice by pre-teaching key skills or content or reviewing key skills or content after the lesson.

UNIVERSAL DESIGN TECHNIQUES THAT SUPPORT ACTION & EXPRESSION

D1 & D2. What do I do if my students are weak in particular types of expression and are having trouble demonstrating what they know?

According to the UDL framework, if students are having difficulty demonstrating what they know, it’s important to either: give them choices about how to demonstrate understanding (sub-goal D1) or provide scaffolds to help them build fluency with a certain type of expression (sub-goal D2). The following UDL techniques can be used to eliminate barriers to expression that are making it difficult for a student to accurately demonstrate what they know.

A. Give expressive options, by:
   a. Giving students the option of audio record or dictating their responses instead of writing them down.
   b. Giving students access to speech-to-text software that will translate an oral response into writing.
   c. Giving students opportunities to respond in a variety of ways, including: charting, writing, tweeting, turning and talking to a partner, etc.
   d. Giving students the choice of project format. These options might include, but are not limited to: creating storyboards and films, composing music or dances, or making models, PowerPoints, speeches, or sculptures.

B. Provide scaffolds that will help students build fluency with writing, such as:
   a. Giving students tools that support their physical ability to write, such as pencil grips, paper with raised lines, writing utensils that require less pressure (such as markers) and paper stabilizers.
   b. Giving students scaffolds such as sentence stems or outlines to support clarity of communication.
   c. Conferencing with students to help them generate ideas about a topic prior to writing.
   d. Encouraging students to practice their response orally before writing them down.
   e. Encouraging students to read their writing out loud in order to check for errors.

C. Provide scaffolds that will help students build fluency with oral expression, such as:
   a. Teaching students to use visuals or slides to support recall of key points.
   b. Teaching students to script their response prior to sharing them out orally.
c. Giving students opportunities to **rehearse their responses** with a peer or with a teacher prior to sharing with the group

**D3. What do I do if my students are struggling to understand the end goal, to identify the steps needed to meet the goal, or to self-evaluate progress toward the goal?**

According to the UDL framework, if students are having difficulty accomplishing a goal, it’s important to **provide scaffolds to help them act strategically** (sub-goal D3). The following UDL techniques can be used to eliminate barriers to action that are making it difficult for students to work strategically toward a goal.

**A. Clarify the goal** for students by:
   a. Giving students **work exemplars** before every assignment so that they have an example of what the complete product should look like
   b. Working with students to **analyze the exemplar** to pull out key criteria for success

**B. Support planning** by:
   a. Giving students **checklists** that detail all of the steps to completing each task
   b. **Coding student assignments** by highlighting key information or using symbols to signal where the instructions are, which questions to start with, which questions to complete independently vs. with a partner, etc.

**C. Support information and resource management** by:
   a. Teaching students **effective note-taking skills**
   b. Giving students **templates** for organizing their work

**D. Support student ability to monitor progress toward a goal** by:
   a. Prompting them to “stop and think” about the steps in a process
   b. Teaching them how to block their time and set short-term goals
   c. Rewarding them for meeting mini-deadlines (e.g., getting a task done before the timer goes off)

**E. Teach students to reflect on the quality of their work** by:
   a. Teaching them how to use a **rubric to self-evaluate**
   b. Teaching them to **select their best work** out of a collection of work samples

**SOURCES**


