Teaching Threads

Universal Design for Learning Guidelines

Sharon A. Maroney (2016)
Western Illinois University-Quad Cities
www.sharonmaroney.net

When introducing teachers to the principles of Universal Design for Learning (UDL), I present my TACI mnemonic. What I mean by this is - when considering all the teaching and technology tools available to design UDL instruction consider –

T	Traditional tools
A	Accommodations and Assistive tools
C	Computer and Online tools
I	Interactive tools

Provide Multiple Means of Representation	How information is presented to students
1. Provide options for perception • *(Information/content is presented in more than one modality or format)* • *vision, hearing, touch, smell, taste text, graphic, auditory, interactive, technology, animations*	1. Customize the display of information by enlarging, using color, changing font, using speech-to-text, text-to-speech, selecting print or digital, adding graphics, etc. 2. Provide alternatives to auditory information through text, graphics, animations, videos, role play, discussion, charts, diagrams, speech recognition software, etc. 3. Provide alternatives to visual information through auditory captions and transcriptions, physical models (hands-on learning), discussion, text-talker, auditory clips, talking word processors, etc.
2. Provide options for language, mathematical expressions, symbols, and icons •*Alternative representations are provided not only for accessibility but also for clarity and comprehensibility*	1. Clarify vocabulary, mathematical expressions, symbols, and icons through preteaching, providing symbol-text charts, definition lists, activating prior knowledge, etc. 2. Clarify syntax and structure through teaching sentence structure, word use, and meaning, illustrations, narratives, demonstrations, etc. 3. Support decoding of text, mathematical expressions, symbols, and icons by teaching students decoding skills, searching tools, and dictionary/thesaurus tools. 4. Promote understanding across languages by presenting key vocabulary in both English and native language and providing translation tools and activities 5. Illustrate language, math expressions, symbols, and icons through multiple media, such as visuals, simulations, auditory resources to explain text/print – through TACI

3. Provide options for comprehension / understanding	1. Activate or supply background knowledge through questioning, discussion, advance organizers, creating links to prior learning, information organizers, etc.
• *Multiple strategies in the presentation of information are used to increase student understanding while also providing scaffolds to ensure access to and transfer of knowledge.*	2. Highlight patterns, critical features, big ideas, and relationships with outlines, graphic organizers, examples and non-examples, etc. Teach students how content is connected and cumulative using unit organizers and content mastery routines.
	3. Guide information processing, visualization, and manipulation of information through prompting, think alouds, scaffolding, interactive activities, information chunking and summarizing, etc.
	4. Maximize transfer and generalization of newly learned skills to independent use through checklists, mnemonics, practice in new settings, activities, etc. Provide multiple opportunities for correct practice to build mastery.
Provide Multiple Means of Action and Expression	*How students interact with information/content and demonstrate their learning*
4. Provide options for physical action • *Provide properly designed materials so that all learners can interact and be involved in learning, using TACI.*	1. Vary the methods for student response and navigation by providing different materials (pencil-paper, computer, smart board, etc.), positioning (seated, standing, cushion, etc.), interaction (in pairs or groups, face-to-face or online), and activity options (pointing, circling, writing, typing, talking). 2. Optimize access to tools and technologies across TACI - varied mouse devices, touch screens, switches, pencil grips, thick rulers, enlarged labeling, accessible furniture, smart and traditional boards, skye, virtual communities, simulations, etc.
5. Provide options for expression and communication/ fluency • *Alternative methods of expression are provided and allowed since there is not one method that suits the needs of every learner for every mode of communication.*	1. Use multiple forms of communication/expression through text, speech, drawing, illustration, video, comics, story boards, design, film/video, music, visual art, sculpture, modeling, demonstration, media, etc. 2. Use multiple tools for the construction and composition of ideas TACI – use sentence starters, sentence strips, concept map, story boards, outlining and main idea tools, peer editing, collaborative expression, etc. 3. Build fluencies with graduated levels of support for practice and performance of multiple communication skills – TACI 4. Build fluency of expression by providing spell-checkers, grammar-checkers, word prediction soft ware, speech-to-text and txt-to-speech, dictation, recording, calculators, graphing and sketching pads and apps, etc.

6. Provide options for executive functions • *overcoming impulsivity, controlling own behavior* • *managing self during learning process* • *selecting and using different strategies for learning* • *planning to complete learning activities and goal setting* • *Teaching and scaffolding these strategies allows students to learn to control their environment, enabling them to devote more cognitive energy to receiving + processing information.*	1. Teach and support planning and strategy development to achieve goal – "stop + think", "show + explain", checklists, prioritizing, identifying steps, etc. 2. Guide appropriate goal-setting by providing prompts, guides, checklists, and modeling goal setting steps. Teach students how to estimate the resources (information, time, materials) needed to complete a task. 3. Facilitate managing information and resources – provide graphic organizers, note-taking guides, project planning templates, organization apps, etc. – to keep information organized and "in mind" 4. Enhance capacity for monitoring progress – build skills in self-questioning, selfassessment, "how-am-I-doing", using feedback, checklists, and check points. Teach students to effectively divide large asks into smaller tasks.
Provide Multiple Means of Engagement	*Providing multiple strategies to engage and motivate students during learning*
7. Provide options for recruiting interest, attention, and engagement • *Design environments that include varied and alternative ways to engage and sustain learner interest and motivation.* • *Design learning activities that grab and build interest, attention, and engagement.*	1. Optimize individual choice and autonomy/independence by providing multiple choices of what is learned, how content will be learned, how learning will be demonstrated, how learning tasks are completed, the level of challenge, learning tools, design, sequence, and timing. 2. Optimize relevance, value, and authenticity by designing learning tasks that relate to student needs, lives, interests, and goals in current and future activities. Allow students to personalize learning tasks and content. Focus on authentic and purposeful outcomes for real audiences. 3. Minimize threats and distractions by developing a learning setting in which students feel safe, accepted, and valued, are able to concentrate and share without fear. 4. Involve students in setting academic + behavioral goals, personal evaluation + reflection on learning outcomes.

8. Provide options for sustaining effort and persistence *• Teach students to maintain their motivation, regulate their attention, keep working to completion, and recognize the value in all instructional activities.*	1. Use prompts (TACI) to highlight and remind students of the importance, value, relevance, and challenge of the learning goals and objectives. 2. Vary demands and resources to optimize challenge by offering options for degree of difficulty, tools to use, methods used to complete tasks, and what-to-do within a learning task. 3. Foster collaboration and community by teaching students skills in cooperative learning and practice, shared learning activities, and collaborative effort. Teach students to assume different roles in group learning activities. 4. Increase mastery-oriented feedback by providing frequent and specific feedback focused on building student skills and performance. 5. Emphasize the skills students are building in the process of learning, effort, making and evaluating improvement, taking responsibility for own learning and reaching goals 6. Create face-to-face or virtual communities of learners with shared interests and goals. 7. Maintain on-task behavior with prompts, self-monitoring, praise, graphing, etc.
9. Provide options for self-regulation *• Promote selfregulation on an intrinsic level by explicitly teaching these skills to students + providing ways to enable students to recognize their own reasons for motivation, develop coping strategies, + monitor their own progress.*	1. Promote expectations and beliefs that optimize student motivation – assist students in identifying what motivates them and how they can maintain their motivation during learning. 2. Teach students personal coping skills and strategies to manage frustration and obtain emotional support when needed – using Social stories, video-modeling, etc. 3. Teach students to monitor and collect data on their own behavior and to effectively make changes in their behavior. Teach students to use prompts, reminders, guides, rubrics, checklists for self-monitoring, stop-watches, timers, counters, etc.. 4. Develop self-assessment and reflection by teaching students skills that enable them to evaluate their own learning, personalize the value of that learning, and make adjustments to improve future learning.

As always, my intent in presenting these activities is to help teachers answer this question –

What can I do to make it easier for my students to learn and behave?

Sharon A. Maroney, Ph. D., a special educator for over 40 years, has held faculty positions at Western Illinois University and Buena Vista University, teaching and consulting positions in Emotional and Behavioral Disorders, and leadership positions for the Midwest Symposium for Leadership in Behavior Disorders, the Council for Children with Behavioral Disorders, and the Council for Exceptional Children.