

Universal Design for Learning Supports

multiple means of
representation

★ the “what” of learning



recognition networks

- how we gather facts
- how we categorize what we see, hear and read
- identifying letters, words or an author's style are recognition tasks

multiple means of
action & expression

★ the “how” of learning



strategic networks

- planning & performing tasks
- how we organize & express our ideas
- writing an essay or solving math problems are strategic tasks

multiple means of
engagement

★ the “why” of learning



affective networks

- how learners get engaged & stay motivated
- how learners are challenged, excited or interested
- these are affective dimensions

Multiple Means of Representation - The “What” of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Processing Information

- use captions for text
- provide voice recognition/speech-to-text software/apps
- provide visual supports - diagrams, charts, pictures,...
- provide auditory supports - music, sounds, alerts,...
- provide written transcripts of videos or audio excerpts
- provide options for how information is displayed - text size, varied fonts, colours, images, graphs, diagrams,...
- visual representations for depicting music
- visual or tactile supports for sound effects - images, vibrations,...
- use colour or typographical options (bold, italic,...) for emphasizing important points
- vary the rate and volume of speech, sounds, videos,...
- use of sign language
- use of various images for emphasis - symbols, pictures, emoticons,...

Multiple Means of Representation – The “What” of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Processing Language & Symbols

- pre-teach vocabulary by making connections to prior knowledge & experience
- relate complex terms &/or expressions to simplified words &/or symbols
- support text decoding through various instructional strategies
- present important information in various ways – text, illustrations, movement, diagrams, models, videos, comics, pictures, manipulatives, virtual/electronic experiences,...
- provide text-to-speech software/apps
- provide audio versions to accompany print or digital text
- provide materials in English as well as learners’ first languages
- provide electronic translation tools/apps

Multiple Means of Representation – The “What” of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Understanding

- activate prior knowledge in various ways – visuals, imagery, concept maps, graphic organizers, models, manipulatives,...
- use analogies &/or metaphors
- emphasize patterns, common features, big ideas, potential connections/relationships,...
- use explicit cues & prompts during sequencing activities
- use explicit cues & prompts to highlight key or critical elements/information
- chunk/segment information into small pieces
- model use of & provide checklists, various organizers, sticky notes, electronic reminders, organizational tools, mnemonic devices, visual imagery, paraphrasing,...
- space out review & explicitly planned practice
- use reading/writing strategies in other curricular areas
- provide opportunities to revisit key ideas & link to new ideas/learning

Multiple Means of Action/Expression - The "How" of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Physical Action

- provide options for how, when & where learners interact with materials, manipulatives &/or technology
- provide options for how learners indicate responses or selections - pencil/paper, touch devices, stylus, mouse,...
- provide options for how learners interact with materials - hands, voice, switch, stylus, joystick, keyboard - or adapted versions of these tools
- provide various forms of Assistive Technologies & keyboard commands (in place of mouse action), switch &/or scanning options, alternative keyboards, screen overlays, modified touch screens &/or keyboards - accompanied with specialized software to accommodate the Assistive Technology (as necessary)

Multiple Means of Action/Expression - The “How” of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Communication & Expression of Knowledge & Ideas

- provide creation options through technology - text, speech, drawing/illustrating, comics/storyboards, video, music,...
- provide creation options through other media - visual art, drawing, sculpture, dance/movement,...
- provide physical manipulatives, blocks, models, alphabet letters,...
- provide technology to assist in the writing process - spell check, grammar check, word prediction software/apps, speech-to-text software/apps, dictation, voice recording,...

Multiple Means of Action/Expression - The “How” of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Planning, Organizing & Completing Tasks

- use prompts
- scaffold for varying levels of effort & difficulty
- model processes, examples & products
- model & scaffold goal-setting
- provide guides, templates & checklists for goal-setting
- display visual goals, objectives & schedules
- model & prompt for “stop & think” techniques
- model think-alouds for various processes
- prompt for thinking aloud & reflection on work/self-reflection
- model & prompt for breaking long-term goals in to short-term chunks/objectives
- provide checklists, guides & templates for note-taking, self-reflection, self-assessment,...
- provide options for self-assessment strategies - role-playing, videos, peer assessment,...
- ask questions to prompt/assist/guide self-reflection/self-monitoring/self-assessment
- provide evidence of progress over time - photos, graphs, videos, charts, portfolios,...
- provide visual timers when completing tasks - increase time in 1 minute increments to increase stamina

Multiple Means of Engagement - The "Why" of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Gaining Interest & Attention

- provide learners with choice & autonomy whenever possible through:
 - level of challenge of a task
 - type of tools used
 - choice of colours, designs, graphics,...
 - sequence or timing of tasks
- involve learners in the design of classroom activities & tasks
- involve learners in personal goal-setting activities - academic & behavioural
- provide a variety of activities & sources of information to be:
 - personalized & relevant to learners & their lives
 - culturally relevant & appropriate
 - socially relevant & appropriate
 - age/developmentally appropriate
- design activities with learners with learning outcomes that are:
 - authentic
 - for a real audience
 - purposeful
- communicate learning outcomes clearly to learners
- plan & provide tasks that allow for active participation, exploration & hands-on experimentation
- provide opportunities for learners to reflect, evaluate & self-assess in regards to content & activities
- provide activities that engage students in creative & critical thinking & use of imagination to solve problems or make sense of complex ideas
- create & sustain an accepting & supportive classroom environment
- provide tools to increase predictability for learners:
 - charts, calendars, visible schedules, visual timers, consistent cues,...
 - creation, modelling & reinforcement of class routines
 - help learners anticipate & prepare for changes in activities, schedules & routines - by providing alerts, countdowns, visual prompts,...
- provide changes to the standard routines - to help learners adapt/adjust to changes
- provide variety in sensory stimuli:
 - vary the amount & volume of background noise
 - vary the amount of visual provocations
 - provide noise buffers
 - vary the number of visual items presented at a time
 - vary the pace & length of work sessions
 - vary the number of movement &/or quiet breaks
 - vary the timing or sequence of activities
- vary the expectations for public displays or performances to demonstrate learning
- involve all learners in whole class discussions

Multiple Means of Engagement - The "Why" of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Encouraging & Maintaining Effort & Persistence

- involve learners in creating goals
- prompt learners to re-state goals
- display goals in a variety of different ways
- model & prompt for breaking down long-term goals into short-term manageable chunks/objectives
- model & use digital scheduling & reminder tools
- use prompts, images, graphics,...to aid in visualizing reaching desired goals/outcomes
- involve learners in assessment criteria creation
- differentiate the difficulty/complexity of activities
- provide & prompt for use of varying tools to assist in completing activities
- vary the performance criteria based on what all, most & some can do
- emphasize the process, effort & improvement while learners complete tasks
- create & use cooperative learning groups - where learners have clear goals, roles & responsibilities
- model & prompt learners on when & how to seek peer &/ or educator support
- create & use cooperative learning groups - based on common interests &/or activities
- co-create expectations for group work - rubrics, norms, checklists,...& reinforce expectations during group activities
- provide feedback that focuses on:
 - level of perseverance
 - effort
 - development of efficacy
 - development of self-awareness
 - use of supports &/or strategies used when encountering challenges
 - improvement & working towards/achieving a standard
- provide feedback that is:
 - frequent
 - timely
 - specific
 - concrete
 - informative
- model how to incorporate feedback in to future learning

Multiple Means of Engagement - The “Why” of Learning

Considerations for supports to provide as necessary/as appropriate are:

Supports for Self-Regulation

- provide prompts, reminders, guides, rubrics, checklists,... that focus on:
 - self-regulatory goals
 - increasing on-task focus/behaviour
 - increasing stamina
 - increasing the amount of self-reflection & self-reinforcement
- provide coaches &/or mentors to model setting appropriate goals & strategies to reach goals - taking in to account learners' strengths and areas for growth
- provide & support activities for self-reflection, self-assessment & personal goal setting
- provide & model use of supports for:
 - managing frustration
 - seeking external emotional support
 - developing internal controls & coping skills
 - developing a growth mindset
 - use of coping skills in real-life situations
- provide options for learners to collect/chart their own behaviour:
 - recording devices
 - various software/apps
 - charts
 - templates
 - rubrics
- plan activities that include receiving timely feedback by multiple means:
 - charts
 - templates
 - feedback displays
- to support learners in understanding their progress
- model, practice and prompt for mindfulness and calming activities including:
 - meditation
 - yoga