

Dimension 2 – Acquire & Integrate Knowledge

Segment 2: Lesson Segments addressing content

Design Question 2: What will I do to help students effectively interact with new knowledge?

Element: 9 – How can I use technology for Chunking Content into “Digestible Bites” [use this in conjunction with element 10]

AITSL STANDARDS: Standard 1 - Know students and how they learn; Standard 2 – Know the content and how to teach it; Standard 3 – Plan for and implement effective teaching and learning; Standard 5 – Assess, provide feedback and report on student learning

Descriptor: Based on student needs, the teacher breaks the content into small chunks (i.e. digestible bites) of information that can be easily processed by students.

		Sample Activities
Score 4.0	<p>In addition to Score 3.0, in-depth inferences and applications that go beyond what was practiced. How am I doing? 4 - Innovating - I adapt and create new strategies (differentiate) for unique student needs and situations, in order for the desired effect to be evident in all students.</p>	<p>Innovating Tip: CHECK Adapt free online polling tools such as Kahoot, Poll Everywhere, Socrative, TodaysMeet, or Padlet to create Exit cards: Pre-assessment cards, exit slips ♣ Note to a Friend ♣ Ticket to Enter or Leave ♣ 3 Finger self-assessment (3 = fully understand, 2 = understand somewhat, 1 = don't understand).</p>
3.5	<p>In addition to score 3.0 performance, in-depth inferences and applications with partial success.</p>	
Score 3.0	<p>Teacher Evidence</p> <ul style="list-style-type: none"> <input type="checkbox"/> Teacher stops at strategic points in a verbal presentation <input type="checkbox"/> While playing a video tape, the teacher turns the tape off at key junctures <input type="checkbox"/> While providing a demonstration, the teacher stops at strategic points <input type="checkbox"/> While students are reading information or stories orally as a class, the teacher stops at strategic points <p>Student Evidence</p> <ul style="list-style-type: none"> <input type="checkbox"/> When asked, students can explain why the teacher is stopping at various points <input type="checkbox"/> Students appear to know what is expected of them when the teacher stops at strategic points 	<p>Emerging Tip: CHEW TOP 10 CHEWING ACTIVITIES</p> <ul style="list-style-type: none"> o Ways to collaborate to CHEW o Ways to Move to CHEW - Classification Cruz ☑ Walk and Talk ☑ Total Physical Response ☑ Charades ☑ Moving Math o Ways to Talk to CHEW - Act it out ☑ Think / Pair / Share o Ways to Write to CHEW ☑ Learning Logs / Journals ☑ Note-Taking Strategies ☑ TV Guide Summaries ☑ blog ☑ Wiki o Ways to Draw / Design to CHEW - Comic Strips ☑ Vocabulary Pictures ☑ Graphic Organisers ☑ Doodle Notes ☑ Mind mapping <p>There are a whole range of strategies you can use to group students together. Many of these work best face-to-face (such as Inside-Outside Circle or the Three-Step Interview) and then students can record their reflections in a blog which can be shared further. A good way to blend is to use a Placemat strategy and either record the centre of the placemat in a blog or scan in the whole placemat. You may like to conduct some of these strategies online using discussion board. For example, Four Corners lends itself well to a discussion board; just use 4 threads: strongly agree, agree, disagree, and strongly disagree). Think-Pair-Share is another strategy that could be adapted to a discussion board. The Jigsaw strategy could easily be adapted in a Wiki or blog, with each expert group recording their expertise. You will need to use your guides for interacting in a blended classroom. Online, these will be related to giving constructive feedback, eDiscussion rules , Netiquette and Digital Citizenship. Offline, guides to collaborative learning are recommended.</p>
2.5	<p>No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content.</p>	
Score 2.0	<p>There are no major errors or omissions regarding the simpler details and processes. How am I doing? 2 - Developing – I break input experiences into small chunks based on student needs, but the majority of students are not monitored for the desired effect of the strategy.</p> <p>However, the teacher exhibits major errors or omissions regarding the more complex ideas and processes.</p>	<p>Beginning Tips: CHUNK ⇨ Virtual Classrooms are a great place to sequence activity CHUNKS, to form a learning pathway.</p> <ul style="list-style-type: none"> o VISUAL: show a movie or clip from a movie; demonstrate from a chart or graph; blog; Wikipedia; Webquest; Powerpoint; read a book or article; show pictures; use graphic organisers or conceptual organisers; watch a demonstration; use new technology; read in various structures (small groups, read aloud, paired reading, reading centres, jigsaw, etc). o AUDITORY: say it; have them say it to each other; play a song; listen to a speech or a speaker; talk to each other; listen to music; podcasts; books on tape; discussions with others. o KINAESTHETIC: role play, demonstrate, have students try something; rotate through stations; set them up to teach content; move, touch, build, draw, take apart; play charades; create group tableau; conduct lab experiments. o SOCIAL: talk about it; listen or tell others; brainstorming; sharing experiences; predicting / hypothesizing, do a role-play; play a game; online class discussion.
1.5	<p>Partial knowledge of the 2.0 content, but major errors or omissions regarding the 3.0 content.</p>	
Score 1.0	<p>With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.</p>	
0.5	<p>With help, a partial understanding of the 2.0 content, but not the 3.0 content.</p>	
Score 0.0	<p>Even with help, no understanding or skill demonstrated.</p>	

S A M R

Elaboration

Desired Effect: Based on student needs, the teacher breaks the content into small chunks (i.e. digestible bites) of information that can be easily processed by students.

Why Chunk Content?

Our brains become overwhelmed when given too much information and are unable to retain new information. Breaking the content into small chunks of information allows the brain to actively process the information. When students are introduced to brand new concepts, the chunks should be smaller to allow the brain time to process and make connections to the new material. The more the students know about the material, the larger the chunks can be.

How to Chunk?

Using curriculum chunking requires teachers to distinguish between declarative and procedural knowledge that may be new to students. If presenting new declarative knowledge, the chunks are comprised of concepts and details that logically go together. If representing new procedural knowledge, the chunks are comprised of steps in a process that go together. Also, pre-assessment data is useful to determine the size of lesson chunks.

- ✓ For students with more prior knowledge, chunk more information together.
- ✓ For students with little prior knowledge, use smaller chunks for information.



What do I typically do to chunk content?

- ✓ Adjust the size of chunks while teaching if the planned chunks seem too large or small based on formative assessments.
- ✓ Tell students about each chunk and how long it is before presenting the lesson.
- ✓ Use an advance organizer to visually represent chunks, their relationships, and their relative sizes to students.
- ✓ Between chunks, provide opportunities for students to process and reflect.
- ✓ Check for understanding after processing each chunk.

Strategies

- ✓ Scaffolding – sequencing learning in a logical order
- ✓ Interacting – planning and organizing for students to respond to questions and summarize information
- ✓ Pacing – moving through the content within an appropriate timeline while making adjustments based on student engagement
- ✓ Monitoring – continually checking for student understanding

Teacher Evidence	Student Evidence
<ul style="list-style-type: none"><input type="checkbox"/> Teacher stops at strategic points in a verbal presentation<input type="checkbox"/> While playing a video tape, the teacher turns the tape off at key junctures<input type="checkbox"/> While providing a demonstration, the teacher stops at strategic points<input type="checkbox"/> While students are reading information or stories orally as a class, the teacher stops at strategic points	<ul style="list-style-type: none"><input type="checkbox"/> When asked, students can explain why the teacher is stopping at various points<input type="checkbox"/> Students appear to know what is expected of them when the teacher stops at strategic points

See over for Proficiency Scales

Remember, to be proficient on Marzano's Teaching Scales for Reflective practice at level 3 you need to use the strategy, exhibit some of the evidence above **AND** monitor the extent to which it affects student outcomes. Then to achieve a 4 (innovating) you need to adapt and create a new version of the strategy that differentiates for unique student needs and situations.

Scale

	0 Not Using	1 Beginning	2 Developing	3 Applying	4 Innovating
Chunking content into digestible bites	Strategy was called for but not exhibited.	Uses strategy incorrectly or with parts missing.	Breaks input experiences into small chunks based on student needs, but the majority of students are not monitored for the desired effect of the strategy.	Breaks input experiences into small chunks based on student needs and monitors for evidence of the extent to which chunks are appropriate for the majority of the students.	Adapts and creates new strategies for unique student needs and situations in order for the desired effect to be evident in all students.

Reflection Questions

	0 Not Using	1 Beginning	2 Developing	3 Applying	4 Innovating
Chunking content into digestible bites	How can you begin to incorporate some aspects of this strategy into your instruction?	How can you break input experiences into small chunks based on student needs?	In addition to breaking input experiences into small chunks based on student needs, how can you also monitor the extent to which chunks are appropriate?	How might you adapt and create new strategies for chunking content into digestible bites that address unique student needs and situations?	What are you learning about your students as you adapt and create new strategies?