

Coffee & Conversation

February 27, 2019

What is Differentiation

[Carol Ann Tomlinson](#) is a leader in the area of differentiated learning and professor of educational leadership, foundations, and policy at the University of Virginia. Tomlinson describes differentiated instruction as factoring students' individual **learning styles** and **levels of readiness** first *before* designing a lesson plan. Research on the effectiveness of differentiation shows this method benefits a wide range of students, from those with learning disabilities to those who are considered high ability.

Differentiation

Differentiating instruction may mean teaching the same material to all students using a variety of instructional strategies, or it may require the teacher to deliver lessons at varying levels of difficulty based on the ability of each student.

Teachers who practice differentiation in the classroom may:

- Design lessons based on students' learning styles.
- Group students by shared interest, topic, or ability for assignments.
- Assess students' learning using formative assessment.
- Manage the classroom to create a safe and supportive environment.
- Continually assess and adjust lesson content to meet students' needs.

Teaching Up (not Dumbing Down)

"Teaching up" means planning instruction for the broadest possible range of learners. It means aiming high and then building scaffolding that helps all students reach those heights, including the students who may not have seen themselves as capable of making the climb."

Teaching Up (not Dumbing Down)

"'Teaching up' begins with the teacher asking, 'What is the most thought-provoking, interesting, and engaging lesson (or unit) I can design to ensure that students will want to invest energy in complex questions, address significant issues, and master skills necessary for success with critical content?' Later in the design process, that question is followed by another: 'How can I plan time, space, resources, and other elements to ensure that students with varied needs will have the opportunity to move ahead in their own learning and work as a contributing part of the class as a whole?' It does not suggest creating 'harder' curriculum but rather creating intellectually rigorous curriculum that stretches students' thinking."

(Differentiated Approach to the Common Core; by Carol Ann Tomlinson and Marcia B. Imbeau)

Four ways to differentiate instruction

- Content
- Process
- Product
- Learning environment

Differentiation

is a teacher's response to learners' needs

Guided by mindset and general principles of differentiation

Respectful tasks

Quality curriculum

Teaching up

Flexible grouping

Continual assessment

Building community

Teachers can differentiate through

Content

Process

Product

Affect

Learning environment

According to students'

Readiness

Interest

Learning profile

Using instructional strategies such as:

RAFTS, Graphic Organizers, Scaffolded Reading, Cubing, Think-Tac-Toe, Learning Contracts, Tiering, Learning/Interest Centers, Independent Studies, Intelligence Preferences, Orbitals, Complex Instruction, 4MAT, Web Quests & Web Inquiry, **ETC.**

Examples of Differentiating...content

- Match vocabulary words to definitions.
- Read a passage of text and answer related questions.
- Think of a situation that happened to a character in the story and a different outcome.
- Differentiate fact from opinion in the story.
- Identify an author's position and provide evidence to support this viewpoint.
- Create a PowerPoint presentation summarizing the lesson.

Examples of differentiating...process

- Provide textbooks for visual and word learners.
- Allow auditory learners to listen to audio books.
- Give kinesthetic learners the opportunity to complete an interactive assignment online.

Examples of differentiating...product

- Read and write learners write a book report.
- Visual learners create a graphic organizer of the story.
- Auditory learners give an oral report.
- Kinesthetic learners build a diorama illustrating the story.

Examples of differentiating...learning environment

- Break some students into reading groups to discuss the assignment.
- Allow students to read individually if preferred.
- Create quiet spaces where there are no distractions.

Multiple Intelligences

The theory of multiple intelligences was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard University. It suggests that the traditional notion of intelligence, based on I.Q. testing, is far too limited. Instead, Dr. Gardner proposes eight different intelligences to account for a broader range of human potential in children and adults. These intelligences are:

- **Linguistic intelligence** (“word smart”)
- **Logical-mathematical intelligence** (“number/reasoning smart”)
- **Spatial intelligence** (“picture smart”)
- **Bodily-Kinesthetic intelligence** (“body smart”)
- **Musical intelligence** (“music smart”)
- **Interpersonal intelligence** (“people smart”)
- **Intrapersonal intelligence** (“self smart”)
- **Naturalist intelligence** (“nature smart”)

Examples of Multiple Intelligences

For example, if you're teaching or learning about the law of supply and demand in economics, you might read about it (linguistic), study mathematical formulas that express it (logical-mathematical), examine a graphic chart that illustrates the principle (spatial), observe the law in the natural world (naturalist) or in the human world of commerce (interpersonal); examine the law in terms of your own body [e.g. when you supply your body with lots of food, the hunger demand goes down; when there's very little supply, your stomach's demand for food goes way up and you get hungry] (bodily-kinesthetic and intrapersonal); and/or write a song (or find an existing song) that demonstrates the law (perhaps Dylan's "Too Much of Nothing?").

MULTIPLE INTELLIGENCES



Learning Styles

VERBAL

Words are your strongpoint!
You prefer to use words both
in speech and in writing!

VISUAL

You prefer to use pictures,
diagrams, images and spatial
understanding to help you
learn

MUSICAL / AUDITORY

You prefer using sounds or
music or even rhythms to
help you learn.

PHYSICAL / KINAESTHETIC

You use your hands, body
and sense of touch to help
you learn. You might 'act
things out'.

WHAT'S YOUR LEARNING STYLE?

LOGICAL / MATHEMATICAL

Learning is easier for you if
you use logic, reasoning,
systems and sequences.

SOCIAL

You like to learn new things
as a part of a group.
Explaining your
understanding to a group
helps you to learn.

SOLITARY

You like to work alone. You
use self-study and prefer your
own company when
learning.

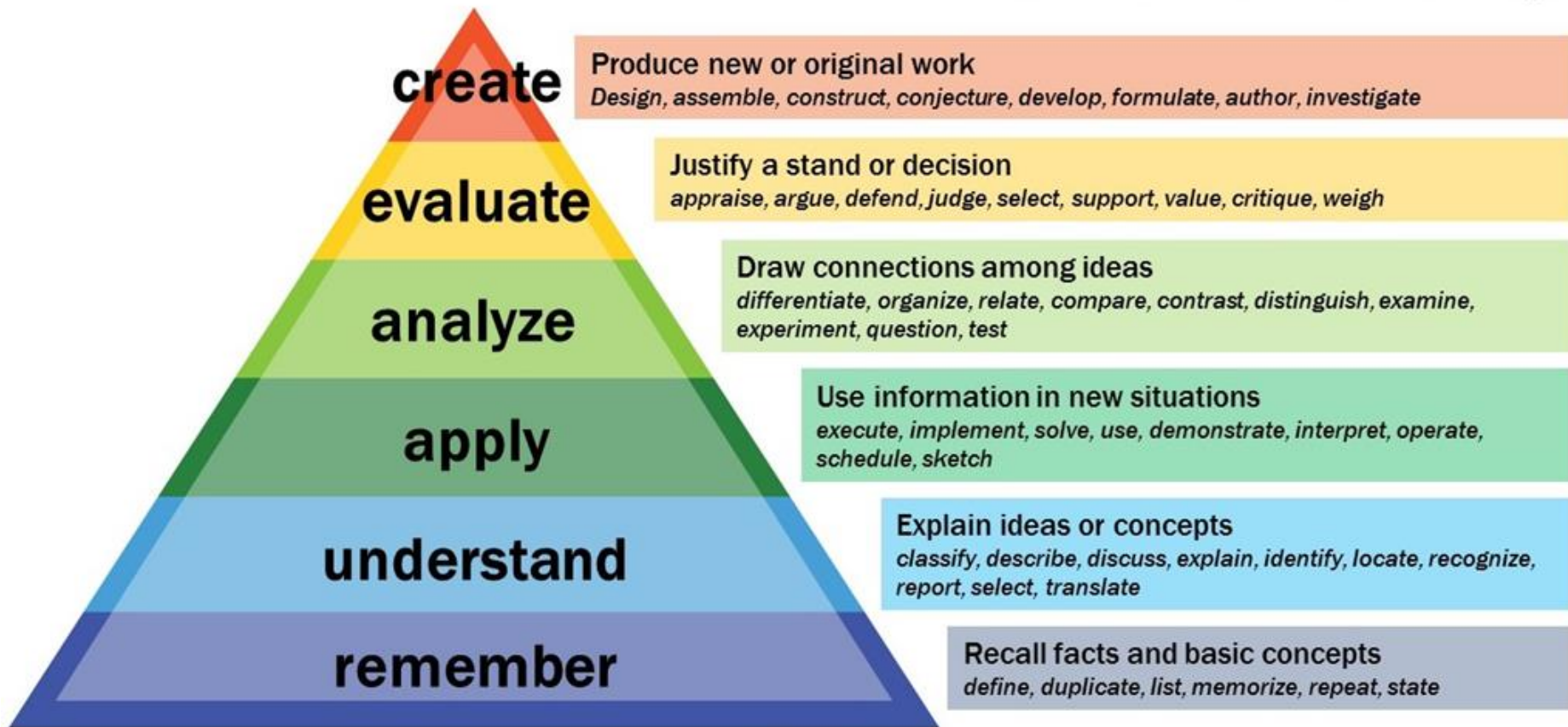
COMBINATION

Your learning style is a
combination of two or more
of these styles.

Bloom's Taxonomy

A set of three hierarchical models used to classify educational learning objectives into levels of complexity and specificity. The three lists cover the learning objectives in cognitive, affective and sensory domains. **The cognitive domain list has been the primary focus of most traditional education and is frequently used to structure curriculum learning objectives, assessments and activities.**

Bloom's Taxonomy



Multiple Intelligences & Bloom's Taxonomy

Example of a Choice Board that combines Multiple Intelligences with Bloom's Taxonomy.

Teachers have students choose activities that match their learning style and also meet each level.

MULTIPLE INTELLIGENCES & BLOOM'S TAXONOMY						
UNIT OF STUDY: Spelling			YEAR LEVEL: stage 2/3			
Seven ways to be smart	Bloom's Taxonomy: Six Thinking Levels					
	Knowing	Understanding	Applying	Analysing	Creating	Evaluating
I enjoy reading, writing & speaking	* write out your list of words	* write a paragraph for each word that explains its meaning	* write a commercial that includes your words	* investigate and record the origins of your words	* create limericks using your words	* choose five words and explain why you chose each of them
I enjoy working with numbers & science	* find and record a spelling rule that fits some of your words	* put your words to a number code eg A=1, B=2	* do a survey and graph how many can, can not spell your words	* arrange your words in alphabetical order	* devise and record ways to remember how to spell your words	* graph your spelling results
I enjoy painting drawing & visualising	* type your words into Crossword Magic and find your words	* write your words in different fonts and colours into word families	* illustrate each of your words with a picture	* write out your words, cut into parts that help you to learn them and glue	* design a board game to play with your words	* assess which activity has helped you most to learn your words and why
I enjoy doing hands-on activities	* play charades with your words	* use sign language to spell your words	* put your words to a rap dance	* type your words onto the computer and break into syllables	* create a puppet play that uses all your words	* interview others as to which of these activities they found most helpful and highlight
I enjoy making & listening to music	* chant your words to a nursery rhyme	* underline your words in poems or songs	* record your words into Microworlds	* write your words to music notation	* compose your own jingle using your words	* judge the jingles of others using set criteria and be prepared to justify
I enjoy working with others	* sit back to back with a partner and test your words	* play hangman's noose with a classmate	* brainstorm as many words as you can that belong to the same word family	* survey the class to find out the ways others learn their words best	* create new spelling activities to help others learn their words	* play some of the games of other students and make a list of positive improvements
I enjoy working by myself	* list your spelling activities that you enjoy and do not enjoy	* put your words in a close exercise	* mentally rehearse your words and then write them down	* put your words on a scale from 0% - 100% in ease of spelling	* map out a plan on how you are going to improve your spelling	* use the parking lot tool to look at your spelling strengths and areas for improvement

Multiple Intelligences & Bloom's Taxonomy

THREATENED SPECIES Personal Learning Plan

YOU **MUST** do at least one activity from each section of FINDING OUT, SORTING OUT and SPEAKING OUT.
YOU **MUST** also reach 10 points if you are in Year 6 to complete the contract, 15 if in Year 6 and 20 if in Year 7.

Example used for science.
More clearly outlines MI and Bloom's Taxonomy.

Multiple Intelligences ↓	Bloom's Taxonomy					
	Finding Out - Remembering & Understanding		Sorting Out - Analysing and Applying		Speaking Out - Creating and Evaluating	
	(1 pt)	(2 pts)	(3 pts)	(4 pts)	(5 pts)	(6 pts)
<u>Language</u> Word Smart	Develop a vocabulary list of words related to threatened species and find the meanings.	Do some research on National Threatened Species Day (i.e. when is it, history, aims of the day etc).	Create a quiz on threatened species. Use a PowerPoint quiz template to present your quiz.	Do a WHAT AM I quiz (at least 3 clues for each one) on 5 threatened species.	Write a letter to the editor of a newspaper urging people to help protect threatened species.	Write a short narrative (about one page) about the plight of a particular threatened animal.
<u>Logical/Maths</u> Number Smart	Do a survey asking people for their opinion on what the THREE most threatened species are. Graph the results.	Create a PMI chart on a threatened animal.	Do a cause and effect wheel on what happens as a result of species being threatened.	Do a timeline plotting the major events of the 1990s. Use www.naturalworlds.org/thylacine	Do a Six Hat review on any BTN story on a threatened animal. (5 points)	
<u>Visual/Spatial</u> Picture smart	Create a globe on Inspiration showing the continents of the world. From each continent, list at least FIVE threatened species from each continent. (2 points)		Use a Venn diagram to compare the plight of two threatened species.	Do a PowerPoint slideshow (no more than TEN slides) showing 10 different ways we can help save threatened species.	Design a poster to make people aware of ways to help save threatened species.	Design a comic strip showing ways to help save threatened species.
<u>Kinaesthetic</u> Body Smart	Mime 10 threatened species. (1 point)				Make a radio (or Podcast) or TV news broadcast (or Flip Camera) highlighting the plight of a threatened animal. Script first. (6 points)	
<u>Musical</u> Music Smart	Convert the National Anthem into a song that details the reasons why species are threatened. (2 points)		Write lyrics for a song about your continent and perform to a well known tune (4 points)			
<u>Interpersonal</u> People Smart			In pairs, come up with a list of the top 10 animals we should be saving the most. Then produce a slideshow on Microsoft PowerPoint, counting down from 10 to 1. On each slide, give the name of the animal, a photo and your reasons why you have placed it in its position. (4 points)		In pairs or a group of 3, create an educational board game about threatened species. (6 points)	
<u>Intrapersonal</u> Myself Smart	Create a word cloud on threatened species.	Create a list of 20 threatened species and classify into the different categories according to their threatened status.	Visualise yourself as a threatened animal. Do a Y chart on how you feel. (3 points)		Create a personal action plan for what you will do in the future to help protect threatened species.	Write FIVE poems about threatened species using any of the styles in this year's Poetry contract.

A Tic-Tac-Toe Novel Study

1 Create song lyrics and music to tell about your book. Use the book title as the song title. Record your song on audacity (Pod casting) or create a music video.	2 Write a letter to the author. Use a four square to plan and organize your letter. Use the following website to find the author's address: http://www.kidsread.com/authors/write.asp	3 Produce a 3 minute video news report , using movie maker or digital photo story about an incident in the story involving 1 or more characters.
4 Use Microsoft Publisher to create a brochure of a specific place in your story. If the setting is an actual place, research the area to get actual information. If the setting is nonfiction, research an actual area that is similar to find information.	5 You create your own activity. See your teacher for approval. _____ _____ _____	6 Create on the computer at least 3 comic strips that highlight 3 important events in your book. Make sure the dialogue is realistic for the characters. Use correct grammar for writing dialogues.
7 Design a Power Point, movie maker, or digital story to advertise your book. Include interesting details about the book and persuasive techniques that would make others want to read it.	8 Create a movie trailer of you novel. Use suspense to keep your reader wanting to see the movie version of your book.	9 Using Audacity (Pod casting) create an audio book of a picture book having the same theme as the novel that you are reading. Save the file to the shared drive for kindergarten through 2 nd grade classes to use or burn the file to a CD.

Tier Choice Board

Tier 1	Make a word find using all of your words.	Free Choice! You decide how to practice your words.	Write all your words in ABC Order in cursive.
Tier 2	Using a thesaurus, find synonyms or antonyms for 10 of your spelling words.	Choose 15 words and draw a picture to represent the word.	Make an unscramble worksheet of all of your words. Give to someone to unscramble before turning in to the tray.
Tier 3	Make 10 riddles using your spelling word. Be sure to include an answer key for each riddle.	Make a fill-in-the-blank worksheet using 15 of your words. Be sure to include an answer key.	Write a creative story using 15 of your spelling words somewhere in your story.

Emotional Intelligence (EI or EQ)

“The ability to use, understand, and manage emotions in a productive, healthy way.”

Daniel Goldman’s model of EQ:

1. Self-Awareness
2. Self-Management
3. Motivation
4. Empathy
5. Social Skills

“The ability to understand the emotions of others and to understand and regulate one’s own emotions” - can only be learned through face-to-face interaction

Assignment

- Take the Multiple Intelligences Assessment
<https://www.literacynet.org/mi/assessment/findyourstrengths.html>