



Great Public Schools for Every Student

Fostering a Growth Mindset

Educator explores growth mindset with students to support student understanding of various modes of learning to understand new concepts and acquire new knowledge and skills.

Key Method

The educator uses pre and post assessments through the multiple intelligences framework to help students foster a growth mindset about their learning.

Method Components

How Can Educators Encourage a Growth Mindset?

To build a learning environment that encourages growth mindset and to make allowances for various learning needs, the teacher develops learning experiences that engage learners in collaborative and self-directed learning.

Why is a Growth Mindset Important?

Primary to this process is understanding the diverse ways students learn. While every student approaches thinking and learning differently, most people are naturally inclined to have a more developed strength in one or two learning strategies. By developing our ability to learn in ways that are not our strengths, we can become more flexible learners and obtain tools to look at concepts from different perspectives. In line with growth mindset skill development, students have the ability to strengthen and develop multiple learning styles. By diversifying instruction and assessment strategies, the educator can help students to learn to approach problems from different perspectives. One tool that can be used to frame this is Howard Gardner's multiple intelligences theory (Gardner).

Howard Gardner's Eight Types of Intelligence

According to Gardner, the following are various types of intelligence:

- *Verbal-linguistic* intelligence refers to an individual's ability to analyze information and produce work that involves oral and written language, such as speeches, books, and emails. Verbal-linguistic modality learners work best by taking active reading notes, discussing, and public speaking.
- *Logical-mathematical* intelligence describes the ability to develop equations and proofs, make calculations, and solve abstract problems. Logical-mathematical modality learners work best by exploring patterns and relationships (flowcharts) and designing experiments using the scientific method.
- *Visual-spatial* intelligence allows people to comprehend maps and other types of graphical information. Visual-spatial modality learners work best by actively imagining, drawing, designing, building things, and creating movies.
- *Musical* intelligence enables individuals to produce and make meaning of different types of sound. Musical modality learners work best by listening to music, humming, and using mnemonic devices.
- *Naturalistic* intelligence refers to the ability to identify and distinguish among different types of plants, animals, and weather formations found in the natural world. Naturalistic modality inclined learners work best by observing,

categorizing, testing, and seeing patterns.

- *Bodily-kinesthetic* intelligence entails using one's own body to create products or solve problems. Bodily-kinesthetic modality learners work best by doing, moving around, dancing, talking through their process, and using repetition.
- *Interpersonal* intelligence reflects an ability to recognize and understand other people's moods, desires, motivations, and intentions. Interpersonal modality learners work best by discussing, sharing, teaching, and working in a cooperative group.
- *Intrapersonal* intelligence refers to people's ability to recognize and assess those same characteristics within themselves. Intrapersonal modality learners work best by working alone, journal writing, using inner speech, and taking time to think.

The Difference Between Multiple Intelligences and Learning Styles

One common misconception about multiple intelligences is that it means the same thing as learning styles. However, the multiple intelligences represent different intellectual abilities. According to Howard Gardner, learning styles are the ways in which an individual *approaches* a range of tasks. They have been categorized in several different ways – visual, auditory, and kinesthetic, impulsive and reflective, right brain and left brain, etc.

Everyone has all eight types of the intelligences listed above at varying levels of aptitude, and all learning experiences do not have to relate to a person's strongest area of intelligence. For example, if someone is skilled at learning new languages, it doesn't necessarily mean that they prefer to learn through lectures. Learning is fluid and complex, and **it's important to avoid labeling students as one type of learner**.

What Multiple Intelligences Theory Can Teach Us

While additional research is still needed to determine the best measures for assessing and supporting a range of intelligences in schools, the theory has provided opportunities to broaden definitions of intelligence. For an educator, it is useful to think about the different ways that information can be presented to students while also not classifying students as specific types of learners. People have many different intelligences, and strength in one area does not predict weakness in another.

Supporting Research

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Kuusisto, Elina, Sonja Laine, and Kirsi Tirri. "How Do School Children and Adolescents Perceive the Nature of Talent Development? A Case Study from Finland." *Education Research International* 2017 (2017).

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Resources

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Regier, Natalie. "Focus on Student Learning – Instructional Strategies Series Book Two: 60 Formative Assessment Strategies." Regier Educational Resources 2012.

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<https://www.edsurge.com/news/2014-10-24-4-ways-to-encourage-a-growth-mindset-in-the-classroom>

"Howard Gardner."

<https://howardgardner.com/>

"Multiple Intelligences: What Does the Research Say?"

<https://www.edutopia.org/multiple-intelligences-research>

Submission Guidelines & Evaluation Criteria

To earn a micro-credential, you must receive a passing evaluation for Parts 1 and 3 (Overview Questions and Reflection) and a "Proficient" for Part 2 (Work Examples/Artifacts).

Part 1. Overview Questions

200 words

Answer the following question:

How have you encouraged a growth mindset in your students? Your examples can be before, during, or after applying for this micro-credential.

- **Passing:** Answers are thoughtful and include specific examples from classroom experiences.

Part 2. Work Examples / Artifacts

To earn this micro-credential, please submit the following three artifacts:

Artifact 1: A lesson plan or unit plan in your content area that includes:

- A learning preference pre- and post-assessment (this can be Gardner's Multiple Intelligences Inventory or another similar tool)
- A menu of assignments matched with the learning styles on your pre/post assessment. This should have at least two ways for students to demonstrate learning for each type of intelligence or other frameworks. Your students will choose two different assignments from different learning styles, one way they matched with and one they did not match with.

Artifact 2: A teacher self-reflection that can be presented in a video (up to five minutes) or a written analysis (600-word limit) that includes the following information:

- Why did you choose the topic for the unit of study?
- How did you develop the menu of learning activities?

- What did you notice about the students as they worked on the assignments?
- Did the students become more flexible learners and thinkers as a result of working on the same concept in two different ways?

Artifact 3: Three student self-reflections (written or audio/video recording)

- These may be done orally as an audio or video recording (two-min. max for each) or in writing (200 words max)

In a grade level appropriate way, students will reflect on how demonstrating their learning in two different ways helped them to develop new approaches to learning or new ways of thinking about the concepts. They should also reflect on how they were able to apply a growth mindset to developing a new learning style.

null	Proficient	Basic	Developing
Artifact 1: Lesson Plan or Unit of Study	<p>Includes a learning style pre- and post-assessment</p> <p>Is grade level appropriate and the following is true:</p> <p>Students were given at least 2 choices for each modality to demonstrate understanding</p> <p>Items on the assignment menu are aligned with the learning modality</p>	<p>Includes only pre- or post-assessment</p> <p>Students were given only 1 way to demonstrate understanding for each modality, or students were not given a choice on which modality to work on</p>	<p>No assessment given</p> <p>Students were not offered a choice of learning modalities and were assigned these by the teacher</p>
Artifact 2: Self reflection	<p>Rationale is grounded in research and best practice and based on student needs</p> <p>Educator perspective is logical and clearly states why he/she chose to utilize the particular strategies</p> <p>Educator included observations about students' learning experiences for both an area of strength and one they were developing</p> <p>Reflection includes thoughts on how students became more flexible in their thinking and learning</p>	<p>Rationale may not be grounded in research or best practice</p> <p>Student needs were not part of the lesson design process</p> <p>Reflection may not include specific examples or reference student observations</p> <p>No mention of students becoming or not becoming more flexible with their thinking and learning</p>	<p>Missing any of the required parts and/or the following:</p> <p>Rationale goes against current research or best practice</p> <p>Teacher showed little to no thoughtfulness when developing strategies</p> <p>Reflection is vague and does not include any observations or thoughts about flexible thinking and learning</p>
Artifact 3:	Students were able to	Students may have	Student reflections are

Student reflections	<p>articulate how each assignment helped them learn or think about the concept</p> <p>Students can describe how it felt to do an assignment based on their strength and how it felt to do an assignment not based on their strength</p> <p>Students were able to discuss how they could apply growth mindset to learning modalities</p>	<p>articulated how they approached or felt about each assignment but were unable to make connections to growth mindset and developing new approaches to learning or how the different assignments helped them see things from a different perspective</p>	<p>very basic and lack details.</p> <p>No connection made to growth mindset or flexible thinking strategies</p>
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Reflection

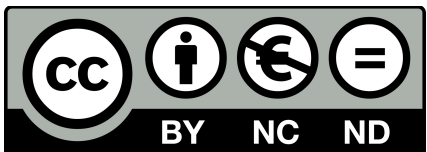
750 word limit

Submit a graph that identifies students' learning modality growth areas and answer the following questions:

How did your thinking about fixed versus flexible learning styles evolve and possibly change?

Will the results of this unit of study make you a more student-centered teacher? Why or why not?

- **Passing:** Graph shows pre- and post-learning modality growth areas for all students and is easy to read. The questions are answered completely and reference the specific data shown in the graph.



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