



Supporting Gifted Students' Need for Choice and Challenge to Maximize Gifts, Talents, & Potential

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The Reality...

- Academic disengagement often begins for gifted learners as early as elementary school (Ritchotte & Graefe, 2017).
- In mixed-ability classrooms, gifted students often do not...
 - Learn new material until months into the school year;
 - Receive instruction that is a good match with their ability level/potential;
 - Get the opportunity to dig deeper into topics that interest them.
- Even in advanced level courses (e.g., AP, IB), gifted learners often need modifications to be working at a level commensurate with their ability (Hertberg-Davis & Callahan, 2008; Hertberg-Davis, Callahan, & Kyburg, 2006).



What we found...

- **OVERALL:** Providing cognitively & intellectually appropriate challenge and structured choice to gifted students increased motivation, engagement, and sense of empowerment (Graefe & Ritchotte, in preparation).



What we found...

- Gifted learners felt more engaged when teachers set high expectations and assignments and activities appropriately challenged them (Graefe & Ritchotte, in preparation).

“[My teacher] basically set a standard of how you were supposed to participate in class and how this is a hard class and this is how you're going to do well, and then you felt motivated, you felt like you wanted to reach his standard.”

~Student Quote



What we found...

- Gifted students valued when teachers had content expertise but were flexible enough to acknowledge and validate student perspectives and experiences, allowing opportunities for choice, control, and self-challenge for all students (Graefe, 2017).

“That's what my idea of a good [teacher] is. Being able to always answer the questions, and being able to challenge the students, but also being able to balance it and not leave other students in the dust. You know?”

~Student Quote

“I think science is what I challenge myself the most in. I always want to take that extra leap in the science classes because it's more interesting to me. I appreciate teachers who know enough and can help me do that.”

~Student Quote



What we found...

- Too much choice became debilitating for most gifted students (Graefe, 2017).

“My thing is like I like having choice, but when it gets too far broad, I feel like I just go crazy. I like structure I guess. I like having the requirements and expectations at least of the teachers, and once I have that I can usually just go crazy with what I want to do.”

“I like having choices, but once I’ve made my choice, I definitely want more specific instructions just so I know I’m doing the right thing because the most stressful thing for me is waking up in the middle of the night before a big project's due and being like, “Oh my god. I know I did something wrong.”

“I learn best when I am given a list of guidelines and expectations. I don’t like being told exactly what to do, but I want to be given a path, which I can then deviate from.”



Support for these findings...

- 5 Cs are necessary for gifted students to engage and produce:
 - Caring teachers, Choice, Control, Challenge, Complexity (Kanevsky & Keighly, 2003)
- Effective teachers:
 - Present challenging and meaningful content
 - Demonstrate content-area expertise
 - Empower students
 - Encourage a sense of pride in high-quality work

(Siegle, Rubenstein, & Mitchell, 2014)



The challenge for educators...

“The challenge is to develop materials that are difficult enough for the most able learners without destroying the confidence of those who are less able—an almost impossible task.”

(Maker & Scheiver, 2005, p. 138)

One way to address...

- Differentiation via RAFT Assignments & Tic-Tac-Toe Boards
 - Provides multiple options for students to...
 - Take in information (content)
 - Make sense of ideas (process)
 - Express what they have learned (product)

(Tomlinson, 2014)



RAFT Assignments & Tic-Tac-Toe Boards

The What:

- A means to provide students with choice and challenge

The Why:

- One of the simpler ways to differentiate for students
 - Differentiate Tasks on RAFT or Tic-Tac-Toe

OR

- Create Separate RAFTs and Choice Boards
- Based on concept of choice
- Easy to incorporate challenge



What is RAFT?

- Role
- Audience
- Format
- Topic

Role	Audience	Format	Topic



RAFT

Role	Audience	Format	Topic
Biographer	Today's society.	Movie/podcast, essay, poster, etc.	Why this decade is important to our history.
Artist	Attackers/critics of the decade.	Sculpture, painting, etc.	The beauty and/or importance of this decade.
Researched Persona	An outsider visiting your decade.	Diorama, scale-model, movie/podcast, etc.	What you need to know if you want to live during this time.
Fill in your	choice here.	Check with me	for approval.



What is a Choice Board?

- A menu with options students can choose (sometimes with guidance)
- Can be structured around readiness, learning preference, interest, etc.

Tic-Tac-Toe Menu

1.	2.	3.
4.	5.	6.
7.	8.	9.



Think-Tac-Toe

<p>Write a poem about the historical person you are researching. Be sure to include important personality traits, key accomplishments and/or important events. Your poem must be a minimum of 8-10 lines and include various poetic devices, i.e., imagery, figurative language, hyperbole, etc.</p>	<p>Make a collage that represents the historical person you are researching. Use at least 8-10 drawings and/or pictures. These images should not be of the person, but represent their personality traits and key moments in their life. Do not use pencil. Words/quotes can be used in addition to images.</p>	<p>Write a diary entry from the perspective of the historical person you are researching. This entry should be about an important decision or moment in his/her life and details his/her thoughts about it. The entry must give the reader insight into my mindset/character of this person.</p>
<p>Using a program like <i>Inspiration</i>, create a timeline for key dates and events in your person's life or for the decade you are researching. You should include at least 8-10 events with brief descriptions, visuals, and dates.</p>	<p>Create a map of a key place during your chosen decade or person's life. Find a way to help us understand why this place was so significant to the time period and/or the person's life.</p>	<p>Consider at least three settings that were important to the person you are researching or the decade, represent these setting visually and write an 8-10 sentence paragraph (total) explaining their importance.</p>
<p>Using a book of proverbs or quotations, find at least 6 to 8 that you feel reflect an important theme or set of beliefs from your chosen time period. Visually display the theme and place the quotes around it. Be sure to include attributions for your quotes.</p>	<p>Find several songs (at least 3) you think reflect an important message from your selected decade. Print the lyrics to the song. In paragraph form, explain the significance of each song to the decade (3, 6-8 sentence paragraphs). Be sure to use specific lines from the song.</p>	<p>Create a work of art that embodies any important idea or concept from the books you've read about your decade. Do not use pencil. Write an 8-10 sentence paragraph explaining the theme/idea and how your piece of art relates to it.</p>



WWII Homefront Tic-Tac-Toe (40 pts): Due Friday, 01/27

Everyone in class will complete the middle box, reading and summarizing “No Bread Today.” After completing the middle box, you should choose two other boxes to complete your tic-tac-toe. Submit your completed tic-tac-toe board with your assignments.

10 points	20 points	30 points
<p>Create a picture frame of either a Navajo code taker or a Tuskegee airman. Your “picture frame” must include the following items:</p> <ul style="list-style-type: none">Title/DefinitionContributions to the war effortTheir legacy (What is their lasting impact?)A drawing or photo image of them	<p>Create a comic strip depicting daily conservation efforts during the war. Include at least 6 comic strip frames.</p>	<p>Analyze the changes and challenges communities face as U.S. involvement in WWII begins. Create a 4-square including four of the following topics:</p> <ul style="list-style-type: none">Industry/workforceRace relationsRationing/ conservation/ recyclingOvercrowding of cities/ community challengesSocial/family changes
<p>Create a concept map or collage depicting racial tensions during WWII. Specifically choose one of the following topics:</p> <ul style="list-style-type: none">Zoot Suit RiotsJapanese Internment	<p>Homework Assignment: Read, annotate, and write a summary paragraph on “No Break Today” reading.</p>	<p>Create a historical monument or marker to commemorate WWII events in Colorado. Select either the German POW camp in Greeley or the Japanese Internment Camp.</p>
<p>Write an “I Am” Poem from the perspective of one of the following people:</p> <ul style="list-style-type: none">Rosie the RiveterGIAmerican kidJapanese-AmericanWife of a soldier	<p>Create a WWII propaganda poster supporting the U.S. war effort.</p>	<p>Imagine you are an advisor to FDR. Write an argument for or against Executive Order 9066 at the beginning of U.S. involvement in the war. Make sure to include the following:</p> <ul style="list-style-type: none">Outline of the pros and cons of the executive order.Take a stand to defend or support it. (3-5 sentences minimum)

Group effort by Emily Kirby, Megan Schulz, Steve Burch, & Libby LeFebre (Greeley Central High School)



Initial Steps

- Decide on a single concept or learning objective
- Decide on RAFT or tic-tac-toe board
 - Decide on RAFT board categories
- OR
 - Decide on the “type” of tic-tac-toe board (e.g., learning preference, choice of product)
- Determine modifications that can be made for gifted/high-ability learners
 - Determine placement of options for tic-tac-toe board
- Decide on choice parameters (e.g., everyone must complete a certain activity)
- Decide on due date and include on board



One possibility...

Knowledge	Comprehension	Application
Analysis	Synthesis	Evaluation
Comprehension or Evaluation	Application or Evaluation	Knowledge or Analysis



Another possibility...

Activity Easy intrapersonal	Activity Musical	Activity Challenging logical
Activity spatial	Core Concept Required	Activity logical
Activity Challenging kinesthetic	Activity linguistic	Activity Easy linguistic



Options for Tic-Tac-Toe Boards

- Center square could be required of all or could be "free choice"
- One square could be completed with a partner
- Expand to a Bingo board (could be a challenge activity)
- Assignment for all or use as extension for students who need additional challenge or who finish early/have compacted out of material
- Allow student to complete any 3 if provide acceptable rationale
- Different board for different groups of students based on readiness
OR
- Assign certain students "starting places" on board
- Don't limit your students! If someone wants to self-challenge at a higher level, support her/him- you may end up pleasantly surprised.





Teacher responses...

- *“I was able to see how to provide all students, including my GT students, the option of choice in how they demonstrate they have mastered a skill.”*
- *“I was sometimes surprised at who chose to challenge themselves- not always who I would have thought. The level of work I got from this assignment was higher than anything so far this year.”*
- *“I had one of my gifted students thank me for this opportunity. That felt great.”*



A caution...

- If your students are not used to being challenged, this can initially feel scary to them and not worth the effort.
 - Create safe environment
 - Collaborative approach
 - Support as needed
 - Focus on effort and growth



More Examples...



A Planet “Show & Tell”

(Each student must pick one square from each horizontal row and use the two together)

Create One	Use the computer to make a drawing that shows how the rotation and revolution of the Earth works to create day and night and seasons.	Paint a picture that shows how the rotation and revolution of the Earth works to create day and night and seasons.	Construct a model that shows how the rotation and revolution of the Earth works to create day and night and seasons.	Create a book or puppet show that shows how the rotation and revolution of the Earth works to create day and night seasons.
	Pick a Way to Explain	Make labels for the sun, Earth, day, night, orbit to attach to or use with your creation. Be ready to explain orally.	Write sentences* that identify and explain each part of your drawing or model and how each part works.	Write a story that explains the Earth’s rotation, revolution, day and night, and seasons.

This differentiated review/synthesis task is based on Va. SOLS for science:

1.6 The student will investigate & understand the basic relationships between the Earth and sun, including *the sun is the source of heat & light *night & day are caused by the rotation of the Earth. 1.7 The student will investigate and understand the relationship of seasonal change (light and temperature) to the activities & life processes of plants and animals.

Based on Unit by Bette Wood, Charlottesville, Virginia City Schools.



RAFT Science Examples

Role	Audience	Format	Topic
Water drop	Other water drops	Travel guide	Journey through water cycle
Bean	Self	Diary	Process of germination
Frog	Tadpole	Letter	Life cycle
Electron	Fourth grade students	Letter	Journey through a parallel circuit
Limestone rock	Cave visitors	Postcard	Chemical weathering process
Statue	Dear Abby readers	Advice column	Effect of acid rain
Trout	Farmers	Letter	Effects of fertilizer runoff
Duck	U.S. Senator	Letter	Effects of oil spill
Star	Self	Diary	Life cycle
Peregrine falcon	Public	News column	Effects of DDT
Red blood cell	Lungs	Thank-you note	Journey through circulatory system
Liver	Alcohol	Complaint	Effects of drinking
Lungs	Brain	Thank-you note	Quitting smoking
Rusty old car	Previous owner	Letter	Chemical change



LA Tic-Tac-Toe Example

<input type="checkbox"/> Setting Choose a passage that helped you to imagine the setting. Copy the passage (should be no more than 1-2 paragraphs). Use colored pencils to underline the most descriptive words.	<input type="checkbox"/> Vocabulary Are there any words in the book you don't understand? List at least 10 words. Write what you THINK they mean (use context cues to help). Then, look up the words in a dictionary and write their actual definitions.	<input type="checkbox"/> Different Ending What events might have changed how the story ended? Change at least one key event to write an alternate ending to the story.
<input type="checkbox"/> New in Class Think about one of the main characters in your book who may have difficulty making friends. Imagine if they were new to our class. Write about what you might do to help them feel comfortable.	<input type="checkbox"/> Acrostic Make an Acrostic poem out of the title of your Book. Use words that are important in the story to complete the poem.	<input type="checkbox"/> Test Create a 5 to 10-question comprehension test for your novel. Include an answer key on a separate piece of paper. Ask one of your group members to take the test.
<input type="checkbox"/> In the Future? Do you think this story could take place one hundred years from now? List at least 10 reasons why or why not.	<input type="checkbox"/> Struggles A main character in your book struggles with something that they may not be able to change. Write about a struggle you or someone close to you has and how you (or they) deal with it.	<input type="checkbox"/> Character Poster Create a poster to show a main character in your book. On the poster, place the character in his or her setting, and surround the character with elements from the story.



LA RAFT Example

Role	Audience	Format	Topic
Semicolon	Middle Schoolers	Diary entry	I Wish You Really Understood Where I Belong
N.Y. Times	public	Op Ed piece	How our Language Defines Who We Are
Huck Finn	Tom Sawyer	Note hidden in a tree knot	A Few Things You Should Know

http://www.cantonschools.org/filestorage/184/1296/1568/1647/Elementary_RAFT_CARDS%5B1%5D.pdf



Book Report Tic-Tac-Toe

Draw a picture of the main character.	Perform a play that shows the conclusion of a story.	Write a song about one of the main events.
Write a poem about two main events in the story.	Make a poster that shows the order of events in the story.	Dress up as your favorite character and perform a speech telling who you are.
Create a Venn diagram comparing and contrasting the introduction to the closing.	Write two paragraphs about the main character.	Write two paragraphs about the setting.



Novel Think Tac-Toe

Directions: Select and complete one activity from each horizontal row to help you and others think about your novel. Remember to make your work thoughtful, original, rich with detail, and accurate.

<p>Create a pair of collages that compares you and a character in the book. Compare and contrast physical and personality traits. Label your collages so viewers understand your thinking.</p>	<p>Write a bio-poem about yourself and another about a main character in the book so your readers see how you and the character are alike and different. Be sure to include the most important traits in each poem.</p>	<p>Write a recipe or set of directions for how you would solve a problem and another for how a main character in the book would solve a problem. Your list should help us know you and the character.</p>
<p>Draw/paint and write a greeting card that invites us into the scenery and mood of an important part of the book. Be sure the verse helps us understand what is important in the scene and why.</p>	<p>Make a model or a map of a key place in your life and an important one in the novel. Find a way to help viewers understand both what the places are like and why they are important in your life and the characters'.</p>	<p>Make 2 timelines. The first should illustrate and describe at least 6-8 shifts in settings in the book. The second should explain and illustrate how the mood changes with the change in setting.</p>
<p>Using books of proverbs and/or quotations, find at least 6-8 that you feel reflect what's important about the novel's theme. Find at least 6-8 that do the same for your life. Display them and explain your choices.</p>	<p>Interview a key character from the book to find out what lessons he/she thinks we should learn from events in the book. Use a <i>Parade</i> magazine for material. Be sure the interview is thorough.</p>	<p>Find several songs you think reflect an important message from the book. Prepare an audio collage. Write an exhibit card that helps your listener understand how you think these songs express the book's meaning.</p>

Novel Title: _____ Author: _____

Activities Selected: _____, _____, _____

Student: _____



Learning Contract----Think Tac Toe

Ancient Civilizations – Grade 6

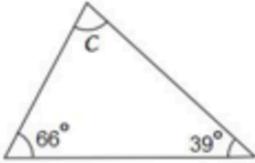
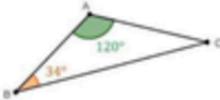
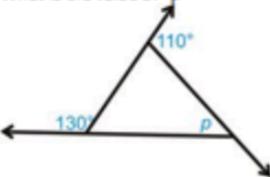
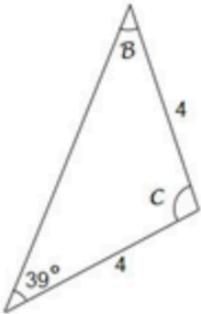
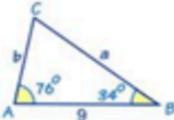
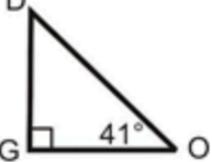
GEOGRAPHY	As an ancient mapmaker, you are commissioned to create a map of your land, including all natural land forms, a compass rose, and a scale. Also find examples of each land form in a modern civilization.	Imagine that you are an ancient citizen who awakens to discover that all water has evaporated. Explain in detail how this would alter your way of life. Also, do this for the town where you live.	Assume you are persuading others to visit your ancient civilization. Design a descriptive, accurate travel brochure. Include both natural and man-made elements that would attract tourists.
IMPORTANT PEOPLE	You are an ancient scribe. Write and illustrate a thorough description of a famous character from each time period being studied. Profile yourself also.	Assume the identity of a famous person from the given time period. Create a journal entry reflecting the ideas, values, and components of daily life for that person & you.	You are a famous sculptor. Create a 3D representation of a well-known leader, god, goddess, or common citizen. Include a museum exhibit card.
CONTRIBUTIONS	Written language is an essential part of everyday life. Your task is to create an alphabet. Include a translation into modern English, a written description of the language development, & a 3D artifact of the new language.	Recreate in 3D form a famous work of architecture from your time period. Compare and contrast this piece to one piece of modern day architecture. Find one example of this architecture's presence in modern day society.	Find a way to explain and show the importance of music and the arts to your culture. Also show at least 2 examples with roots in our time.



Math Homework Tic-Tac-Toe

Homework Choice Board

Directions: Choose any three boxes that make a Tic Tac Toe Win.

<p>Find the measure of "c".</p> 	 <p>Explain how you found the value of C.</p>	<p>Give a real-life example of when you would need to find the missing angle in a triangle.</p>
<p>What is the value of "p"?</p> 	<p>What is one question you still have about finding the missing angle in triangle problems?</p>	<p>Explain why C is 102.</p> 
<p>What is the size of angle ACD?</p> 	<p>What is the measure of angle C?</p> 	 <p>What is the value of the missing angle.</p>



Algebra RAFT

Role	Audience	Format	Topic
Coefficient	Variable	Email	We belong together
Scale / Balance	Students	Advice column	Keep me in mind when solving an equation
Variable	Humans	Monologue	All that I can be
Variable	Algebra students	Instruction manual	How and why to isolate me
Algebra	Public	Passionate plea	Why you really do need me!



Evaluating RAFT or Tic-Tac-Toe Products

Product Guides

The Curriculum Project

- Product Possibilities
 - Kinesthetic
 - Visual
 - Oral
 - Written
- Levels
 - K-2
 - 3-5
 - 6-8
 - 9-12



The Curriculum Project- Level 3

kinesthetic 3

DRAMATIZATION

core kit

parts

Attributes

beginning

Introduces the characters • Introduces the setting • Introduces the plot

middle

Develops the characters • Depicts a challenge or problem • Builds toward the climax
• Enhances understanding of time and place • Creates mood and tone

closure

May resolve a conflict • May solve a problem

movement

Creates mood • Expressive • Involves effective gestures • Confident

voice

Clear pronunciation • Conveys emotion • Expressive and believable • Well-paced

props (optional)

Accentuate key events or concepts • Arouse viewer interest • Match purpose
(realistic-imaginative) • Relevant to subject

blocking

Establishes a sequence • Gives directions • Provides organization



The Curriculum Project- Level 4

kinesthetic 4

DRAMATIZATION

core kit

parts

Attributes

beginning

Introduces the characters • Introduces the setting • Introduces the plot through foreshadowing

middle

Develops the characters • Introduces the sub-plots • Builds toward the climax • Enhances understanding of time and place • Creates mood and tone • Establishes the author's point of view • Invites audience speculation

closure

May resolve a conflict • May establish a gestalt • May solve a problem • May leave a situation ambiguous

movement

Creates mood • Enhances/conveys emotion • Expressive • Involves effective gestures • Purposeful • Confident

voice

Appeals to senses • Clear pronunciation • Confident • Conveys emotion • Expressive and believable • Varying pitch, projection, tone, and volume • Well-paced

props (optional)

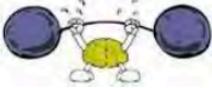
Accentuate key events or concepts • Arouse viewer interest • Enhance/support emotional tone • Match purpose (realistic-imaginative) • Relevant to subject

blocking

Establishes a sequence • Gives directions • Provides organization



Effort Rubric

	Fixed	Mixed	Growth
Taking on Challenges	You don't really take on challenges on your own. You feel that challenges are to be avoided.	You might take on challenges when you have some previous experience with success in a related challenge.	You look forward to the next challenge and have long range plans for new challenges.
Learning from Mistakes	You see mistakes as failures, as proof that the task is beyond your reach. You may hide mistakes or lie about them.	You may accept mistakes as temporary setbacks, but lack strategies to apply what you learned from the mistakes in order to succeed.	You see mistakes as temporary setbacks, something to be overcome. You reflect about what you learned and apply that learning when revisiting the task.
Accepting Feedback and criticism	You feel threatened by feedback and may avoid it all together. Criticism and constructive feedback are seen as a reason to quit.	You may be motivated by feedback if it is not overly critical or threatening. Who is giving the feedback, the level of difficulty of the task, or their personal feelings might all be factors in your motivation.	You invite and are motivated by feedback and criticism. You apply new strategies as a result of feedback. You think of feedback as being a supportive element in the learning process



For handouts or for more information...

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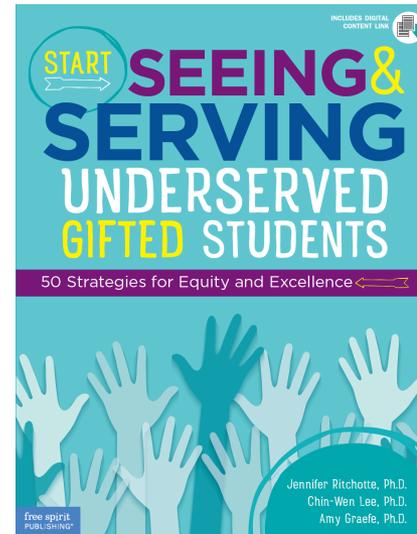
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