

# Understanding Creativity

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*GCCO*

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A decorative graphic consisting of several parallel white lines of varying thicknesses, slanted diagonally from the bottom-left towards the top-right, located in the lower right portion of the purple background.

Note: Interactive handout

- ▶ Introduce the support materials and micromoments..
- ▶ Introduce Piirto's Pyramid and creativity model - how is it unique?
- ▶ Experience a few of the concepts.
- ▶ Reflect after each experience.
- ▶ Sharing out ideas.

Today's session

What do you see in classrooms that constitutes service for Creative Thinking Ability?



# Specifics about service

- Problem Based Learning
- STEM
- Invention League
- Creative Writing
- Creative Thinking Lessons
- Open ended Projects
- Differentiated Products
- Teacher Support with PD
- Weekly creativity collaboration
- Teachers across the curriculum are aware of the ID and evaluate students on a creativity goal
- Open-ended Projects
- Whole class lessons in creative thinking

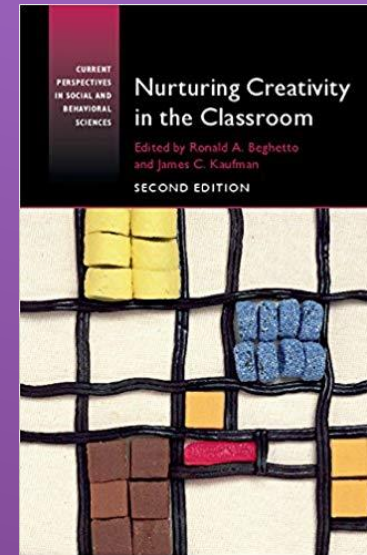
## Specifics about service

- Specialized enrichment projects/options related to the 'regular' classwork.
- Allow students to choose a creative means of expressing the content.
- WEP goals related to creativity, but tied to content areas.
- Offer choice and a variety of ways to show knowledge.

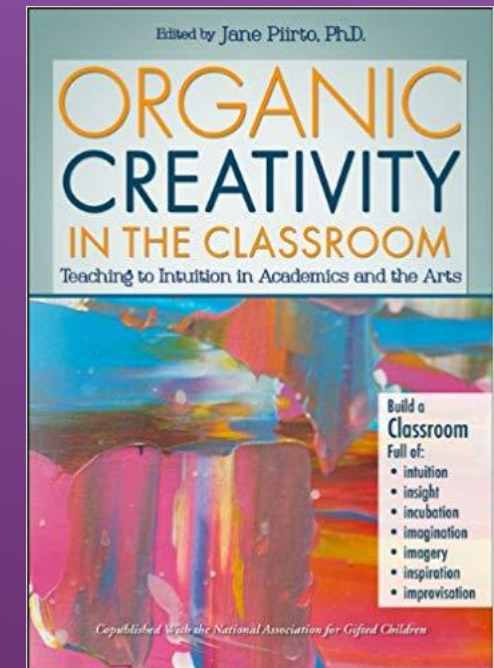
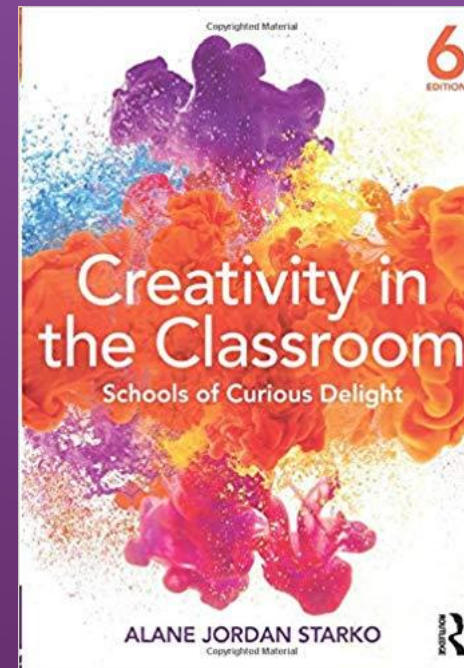
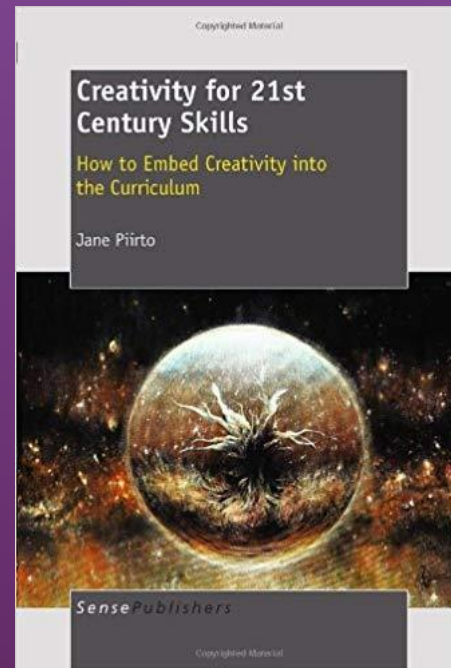
## Specifics about service

- Creative Problem Solving [Osborn and Parnes; Convergent and Divergent Thinking process]
- Torrance [Incubation Model]
- Guilford [Divergent Thinking]
- Williams Taxonomy [elements of Divergent Thinking and affective, like risk-taking, curiosity, complexity, imagination (intuition)]
- Depth and Complexity icons.

► Research and application



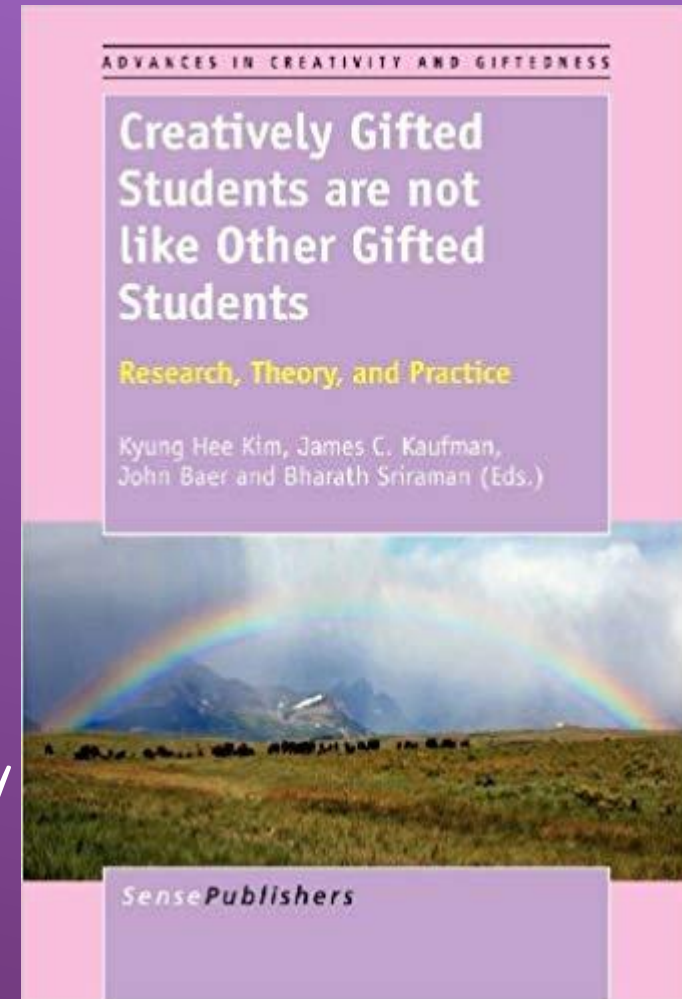
► Classroom and teacher applications





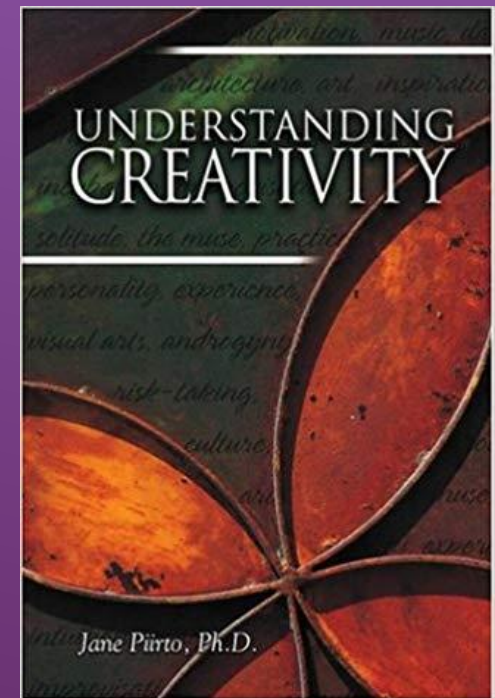
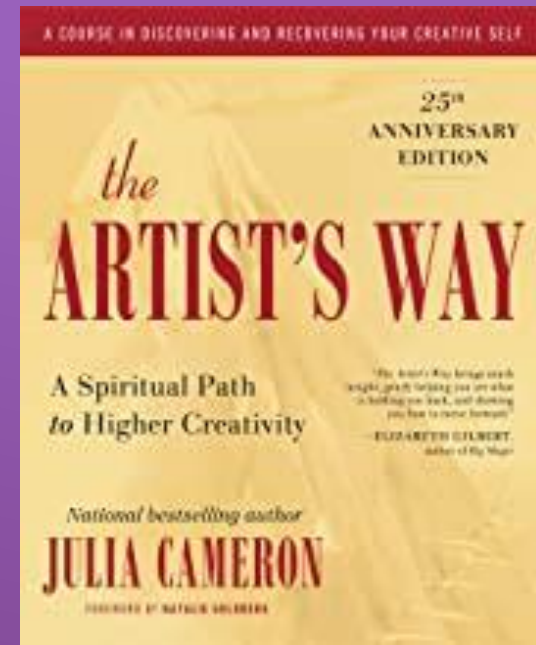
- ▶ Robert Beghetto "Creativity in the micromoments."
- ▶ Schools view creativity enhancement as "extra-curricular" (p. 4)
- ▶ "...requires that teachers recognize opportunities to support creativity in their everyday teaching and learning of academic subject matter" (p. 5).
- ▶ As teachers do we:
  - ▶ Attempt to be understood?
  - ▶ Attempt to understand? (exploring ideas, especially the unexpected, improvisational, unscripted)

Micromoments are decision points for us as teachers.

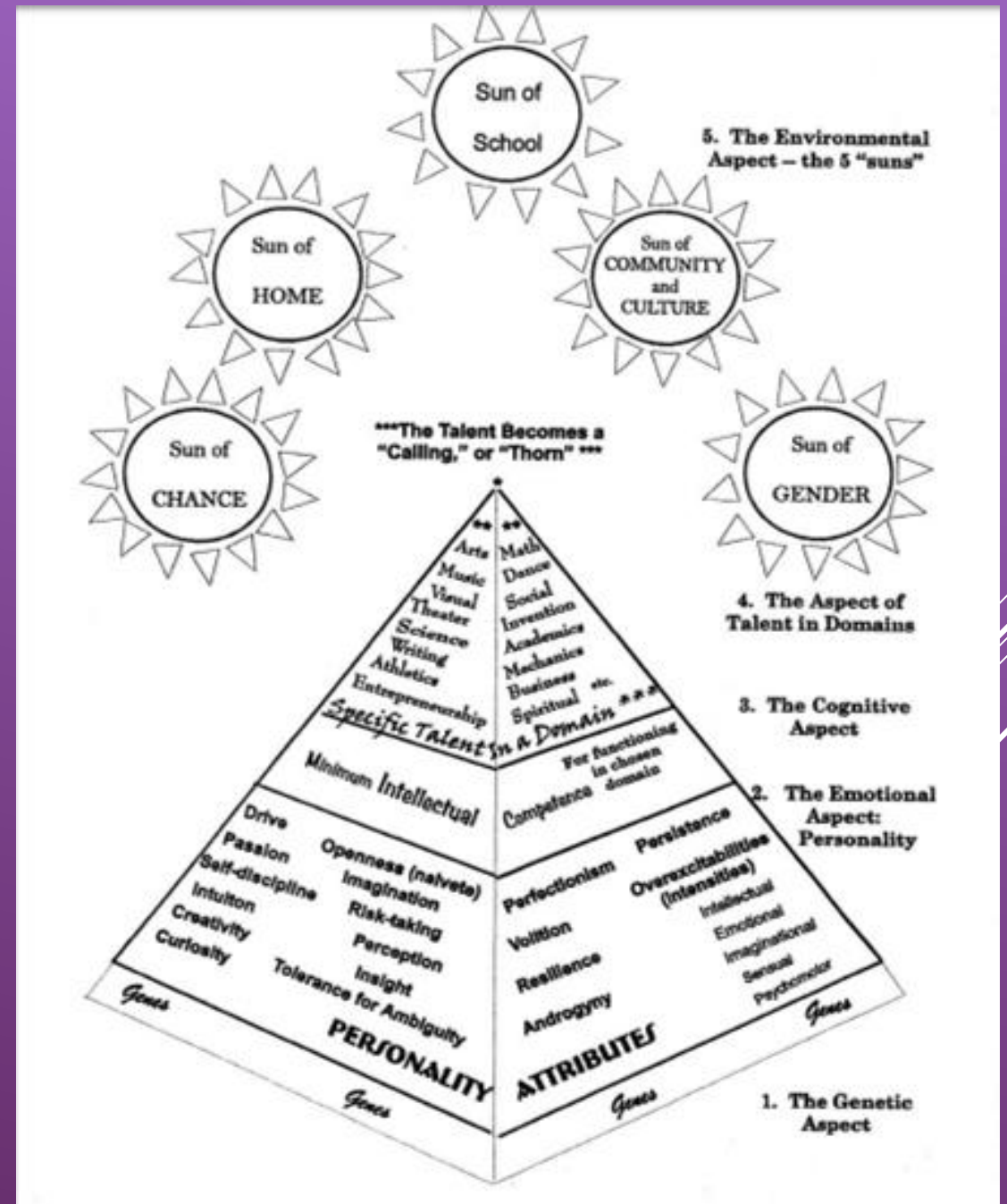


- ▶ Teacher beliefs make a difference
- ▶ Creativity training as transformative
- ▶ Teachers who explore their own creativity vs. Teachers who are uncomfortable with their own creativity

*My research*



# The Piirto Pyramid (Page 1 of Google doc)



- ▶ "I noticed that no matter what a creator creates, the creative process is remarkably similar. There are commonalities across domains."
- ▶ "As I studied the creative processes of creators, I found no mention of the words creative problem-solving, fluency, flexibility, brainstorming, or elaboration . . ."
- ▶ ". . . none of them has described the creative process in the way that it has been taught in schools for the past fifty years."

*From Piirto's Creativity for 21<sup>st</sup> Century Skills*

- ▶ "Those who are creative seem to follow certain common practices."
- ▶ "Many of the creative and productive adults . . . seemed to have creative processes that could be divided into themes . . .
  - ▶ Certain Core Attitudes toward creativity
  - ▶ Experienced Seven I's
  - ▶ Engaged in *certain general practices*"
- ▶ "Not all creators use all of these techniques, but many creators use at least some of the techniques."

From Piirto's *Creativity for 21<sup>st</sup> Century Skills*



# The Piirto Model of Creativity Training

(Page 2 of Google doc)

Piirto Model of Creativity Training	
Theme	Activities
Core Attitudes	<p>Risk-taking (Princess and the Pea)</p> <p>Naiveté (Raisin Meditation)</p> <p>Group trust (Red Wounds)</p> <p>Tolerance for ambiguity (More than one right answer)</p> <p>Self-discipline (Thoughtlogs)</p>
Seven I's	<ol style="list-style-type: none"> <li>1. Imagery (archetypes)</li> <li>2. Imagination (finger painting, clay, poetry, fiction)</li> <li>3. Intuition (intuition probe, psychic intuition, dreams)</li> <li>4. Insight (grasping the gestalt, Aha! Zen Sketching)</li> <li>5. Inspiration (Love, dreams, travel, 'I'll show you', frustration)</li> <li>6. Incubation (See Meditation)</li> <li>7. Improvisation (jazz, theater, word rivers, writing practice, creative movement, rhythm and drumming, scat singing, doodling)</li> </ol>
General Practices	<ol style="list-style-type: none"> <li>1. The need for solitude;</li> <li>2. Creativity rituals;</li> <li>3. Meditation;</li> <li>4. Exercise, especially walking;</li> <li>5. The quest for silence;</li> <li>6. Synchronicity;</li> <li>7. Divergent production practice;</li> <li>8. Creativity salon;</li> <li>9. Individual or group creativity projects;</li> <li>10. Creativity as the process of a life;</li> <li>11. Supporting-Visiting bookstores, museums, concerts, plays, movies, readings or lectures.</li> </ol>

# A word about the Core Attitudes:

## Risk-taking and Group Trust

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Risk-taking is at the core of creative work - or trying anything new.





- ▶ Demonstrate your own risk-taking.
- ▶ Create a classroom atmosphere that encourages intellectual and creative risks. Discuss what that means.
- ▶ Make a spot in your classroom a creative "safe zone."
- ▶ Do trust activities.
- ▶ Make sure students know how they will be assessed on assignments.
- ▶ "Princess and the Pea."
- ▶ "Music from My Life."
- ▶ The Drumming Circle / Found Sounds.
- ▶ Partner drawing.

*Core Attitude of Risk Taking*

This is very closely related to the Core Attitude of Risk-Taking (Vulnerability)

- ▶ Model supportive behavior when anyone tries something new, something challenging, or takes a risk.
- ▶ Practice giving non-judgmental feedback.
- ▶ Change negative behavior by taking the person aside to discuss it privately.
- ▶ Use sincere compliments, expect the same from students.
- ▶ Push students to challenge themselves, then celebrate their successful and non-successful attempts.
- ▶ Sharing your personal and creative work
- ▶ Feeding back the creativity with connections - "I see (or feel) \_\_\_\_\_ in this creative work."

*Core Attitude of Group Trust*

# A word about the Core Attitudes:

## Naivete

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Theme	Activities
Core Attitudes	<p>Risk-taking (Princess and the Pea)</p> <p><b>Naivete (Raisin Meditation)</b></p> <p>Group trust (Red Wounds)</p> <p>Tolerance for ambiguity (More than one right answer)</p> <p>Self-discipline (Thoughtlogs--Individuation)</p>
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# Naivete - The Raisin Meditation

# The Raisin Meditation

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- ▶ Create a climate of mindfulness - allow time for settling in.
- ▶ Look at something from different points of view.
- ▶ Notice small things when you share, ask for specifics when students share.
- ▶ See connections between unlike things.
- ▶ Notice small details of student work.
- ▶ Talk about how traveling opens you to new experiences.
- ▶ Invent a new use for an object or improve on a tool or object.
- ▶ Up Close and Personal Sketches
- ▶ The Raisin Meditation (also Incubation, Meditation)

Core Attitude of Naivete (Openness to Experience)



- ▶ What does self-discipline look like in different domains?
  - ▶ Music, athletics, foreign language, art, creative writing, scholarly writing, invention, theater, mathematics
- ▶ Discuss self-discipline with students and ask how their interests and hobbies require it. .
- ▶ Discuss long-term and short-term goal setting.
- ▶ Do a visualization where students look into their own future - a month, a year, five years.
- ▶ Break long-term assignments into smaller steps.
- ▶ Discuss frequent excuses for not achieving goals
- ▶ Value hard work - the process, not the product.

*Core Attitude of Self-Discipline*

- ▶ Teach students to express opposing viewpoints respectfully.
- ▶ Do not focus on one solution too quickly.
- ▶ Start a debate club.
- ▶ Read and discuss a novel, poem, or film.
- ▶ Practice the Myers-Briggs Type Indicator "P" Perceiving preference - not making lists, waiting until the last minute, doing things spur of the moment, going in without a plan.
- ▶ Divergent Production/Brainstorming
- ▶ Ask open-ended questions with no right answer - "What is good art?"

Core Attitude of Tolerance for Ambiguity



The need for solitude	Silent alone reading or writing time
Rituals	Starting the day, ending the day with the same words or actions
Meditation	Walking or finger labyrinths, breathing exercises
Exercise	Walking in nature, playground time, active games
The Quest for Silence	Meditation, encouraging and supporting silent working time
Synchronicity	Looking for small connections
Creativity "salon"	Joining together to share creative works, "Poetic License"
Supporting creative places	Art museums, book stores, galleries, studios, cemetery,

## Other General Practices

# Stop and Jot

Alone or with a partner, take 5 minutes to review these ideas and jot down ideas you think you might use from the Core Attitudes and the General Practices.

Jot these in your notes or on the interactive Google handout.

## *Piirto Model of Creativity Training*

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- ▶ Have students create an image or visual for things they need to remember.
- ▶ Visualize what it would feel like to reach a goal or overcome an obstacle.
- ▶ Practice creating images from thoughts.
- ▶ Mentally imagine a lemon and mentally "eat" it. Feel your taste buds react to the sourness - this is gustatory imagery. Write about it.
- ▶ Mentally imagine yourself accomplishing something amazing. Take yourself through the whole process, all of the steps. Make a flow chart or graphic.
- ▶ Mentally imagine the voice of your mother, father, or favorite individual saying something supportive to you. Imitate him/her.
- ▶ Mentally imagine a pet's soft fur, picking up a small baby, climbing into a warm bed.
- ▶ Creativity Monster - creating and (eventually) Feeding Back.

The "I" of Imagery

YES: What is this to me? What does this mean to me?

NO: What is this? What does this mean?

- ▶ This reminds me of . . . .
- ▶ Give a descriptive adjective or phrase.
- ▶ The work looks like/resembles. . .
- ▶ I see . . . .
- ▶ To me this means . . . .
- ▶ Awe - \*silence\*
- ▶ Answering with Art (poetry, sketch, song)

Feeding Back phrases

- ▶ Play pretend.
- ▶ Create an "imagination corner" in your classroom with materials and prompts for using imagination.
- ▶ Tell a true story. Then retell it with exaggerated aspects, delighting in the imaginative and fun new story.
- ▶ Emphasize using play as an initial activity for any topic, warm-up, getting acquainted.
- ▶ Teach students to imagine how others think and feel - "walk in someone else's shoes."

The "I" of Imagination







- ▶ Discussing the meaning of archetypal ideas, symbols, metaphor, in stories, myths, films, etc.
- ▶ Employing quick memory/recall games and exercises.
- ▶ Recognize that teaching itself is an intuitive process!
- ▶ Pay attention to hunches, guesses, when students "just know."
- ▶ Have a discussion about intuition and students' experience with it.
- ▶ Have students make predictions - about the rest of their day, their week, what might happen when they go home.
- ▶ Discuss safety issues and "gut feelings" or reactions.
- ▶ Look for examples of characters (book, films) using intuition.
- ▶ Respect when students skip steps to reach a correct conclusion.

The "I" of Intuition



- ▶ Intentionally define insight and talk about it, discuss it with students.
- ▶ Keep a list of students' insights and post it.
- ▶ Talk about insights and solving problems - give students a problem without a single solution.
- ▶ Discuss how dreams (day and nighttime dreams!) can provide insight. Also walking, driving, gardening, bathing, repetitive or (seemingly) menial work can open the mind to insights. This is where insight and incubation work together.
- ▶ Up Close and Personal Sketches

The "I" of Insight

# The "I" of Inspiration. Inspiration of . . .

- ▶ ...Love - notice how Love is the subject of music, literature, film.
- ▶ ...Nature - conduct class outside/outdoor education experience, plant a garden, display nature photos, nature meditations.
- ▶ ...Transcendent Experience - teach tolerance, see how education transforms individuals, culture, emphasize Purpose, the Whole Child, spiritual education, study the foundations of various faiths, works of art, respect stories of transcendent experiences.
- ▶ ...Through substances - study creative individuals who often suffer with substance abuse. Substances mimic the "high" experienced in creative work, or are part of the risk-taking experience, or are used to cope with inner/outer expectations or vulnerability.

## *The "I" of Inspiration. Inspiration of . . .*

- ▶ ...Other's creativity - talk about your own creative work, keep creative work in your classrooms in the form of posters, literature, images, sayings, inventions. Instead of Current Events, have students share creative work (their music included!) that inspires.
- ▶ ...Dreams - talk about dreams, tell the dream's story and include images, metaphors, symbols, archetypes.
- ▶ ...Travel and Novel Surroundings - take a new route, take a trip (virtual trips through travel photos, videos, websites work in the classroom, too!), have students talk about trips, have them keep a thoughtlog if they travel during school time.

## The "I" of Inspiration. Inspiration of . . .

- ▶ ...The Dark Side - read Poe, play protest songs, read slave narratives, discuss the holocaust and the force of human resilience, during dark times creative work can truly soothe and help students process.
- ▶ ...of Injustice - have students conduct research about a social justice issue or community service project, encourage students' questions, sensitivities, and solutions about issues.
- ▶ ...of "I'll Show You!" - talk about famous individuals who have overcome initial rejection.

# The Inspiration of Rejection

- ▶ Stephen King - *Carrie* rejected 30 times.
- ▶ Dr. Seuss - tried 27 times before getting published.
- ▶ Milton Hershey - failed in business 3 times before his success.
- ▶ Albert Einstein - did not speak until age 4, called Lazy by his teacher.
- ▶ Benjamin Franklin - an elementary school dropout.
- ▶ Thomas Edison - failed over 1,000 times before creating the right balance for the light bulb.
- ▶ Walt Disney - fired by a newspaper for "not being creative enough."

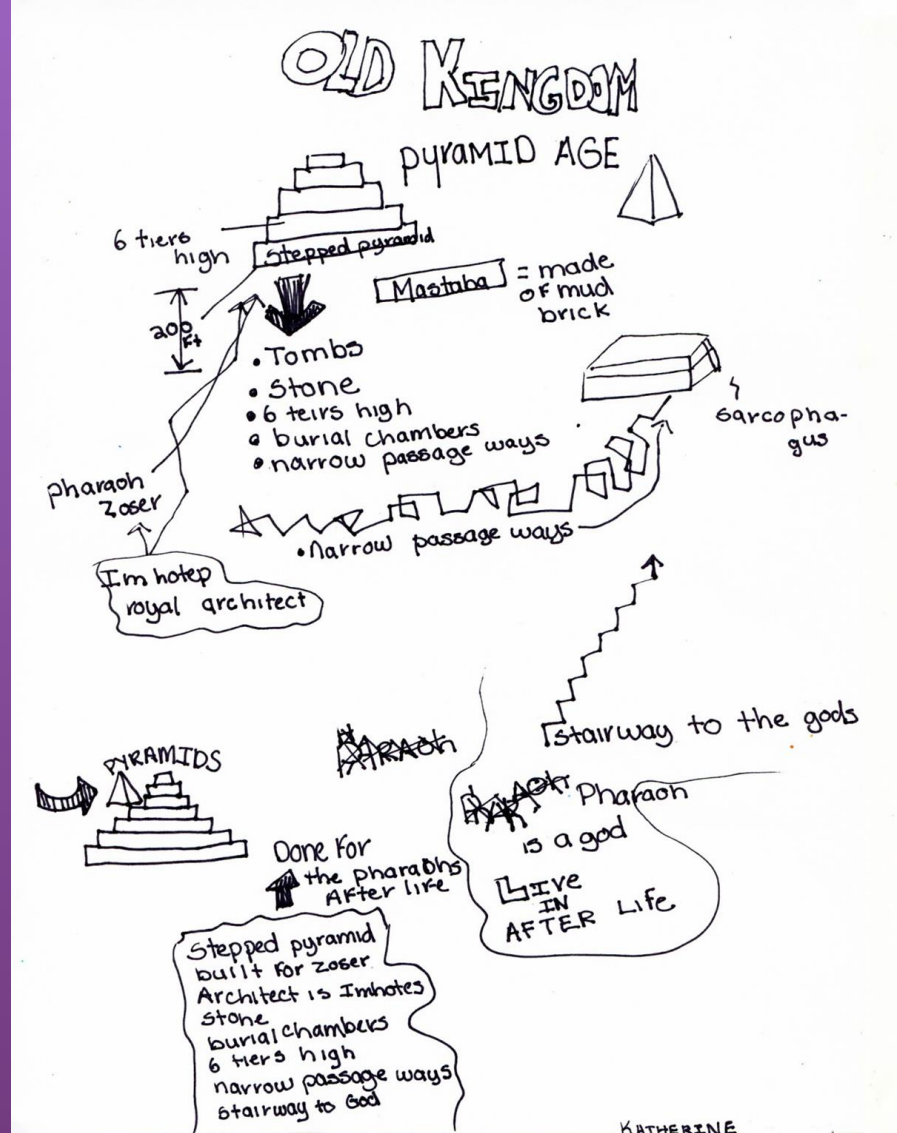
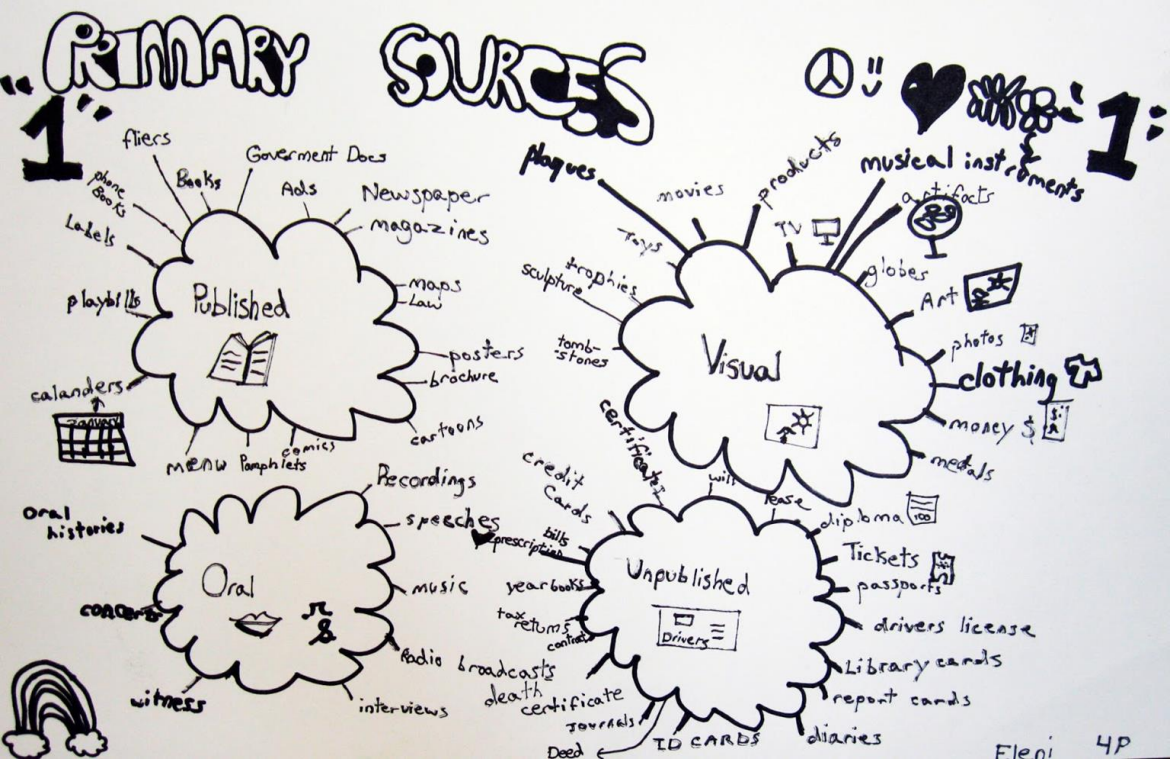
- ▶ Give time for transitions - use music or sound, dimmed lights, meditation time or simple chair yoga moves to calm students.
- ▶ Provide time and materials for processing ideas before writing or sharing.
- ▶ Use Wait Time.
- ▶ Thoughtlogs, sketchbooks, writing journals are all good ways to "think things through."

The "I" of Incubation

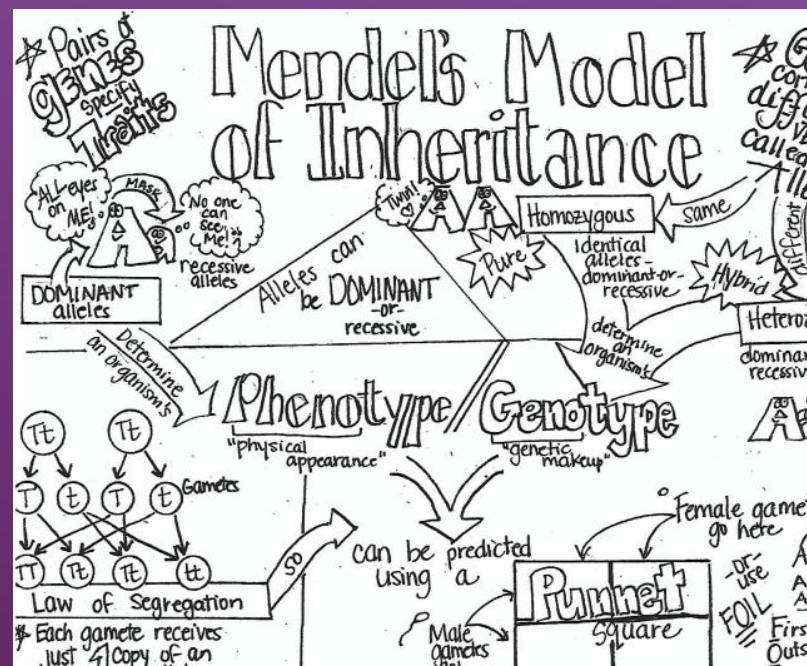
- ▶ Play a jazz composition based on a familiar melody and improvise on the melody. Talk about going beyond the written notes.
- ▶ Play theater games - Questions Only, Props, Story Around the Circle.
- ▶ Drum Circle/Found Sounds
- ▶ Story telling, joke telling
- ▶ "Playing" with ideas, concepts, storylines
- ▶ Doodling and sketchnoting

The "I" of Improvisation

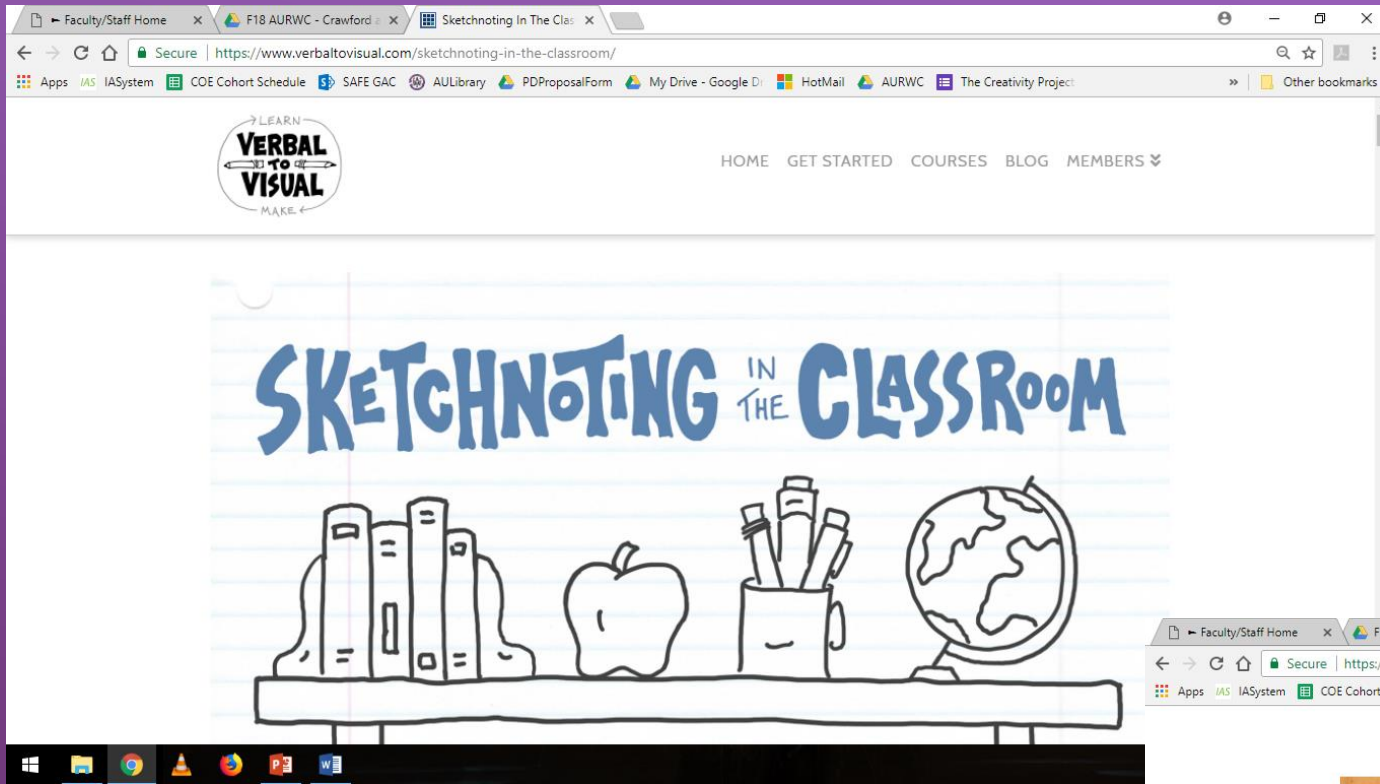




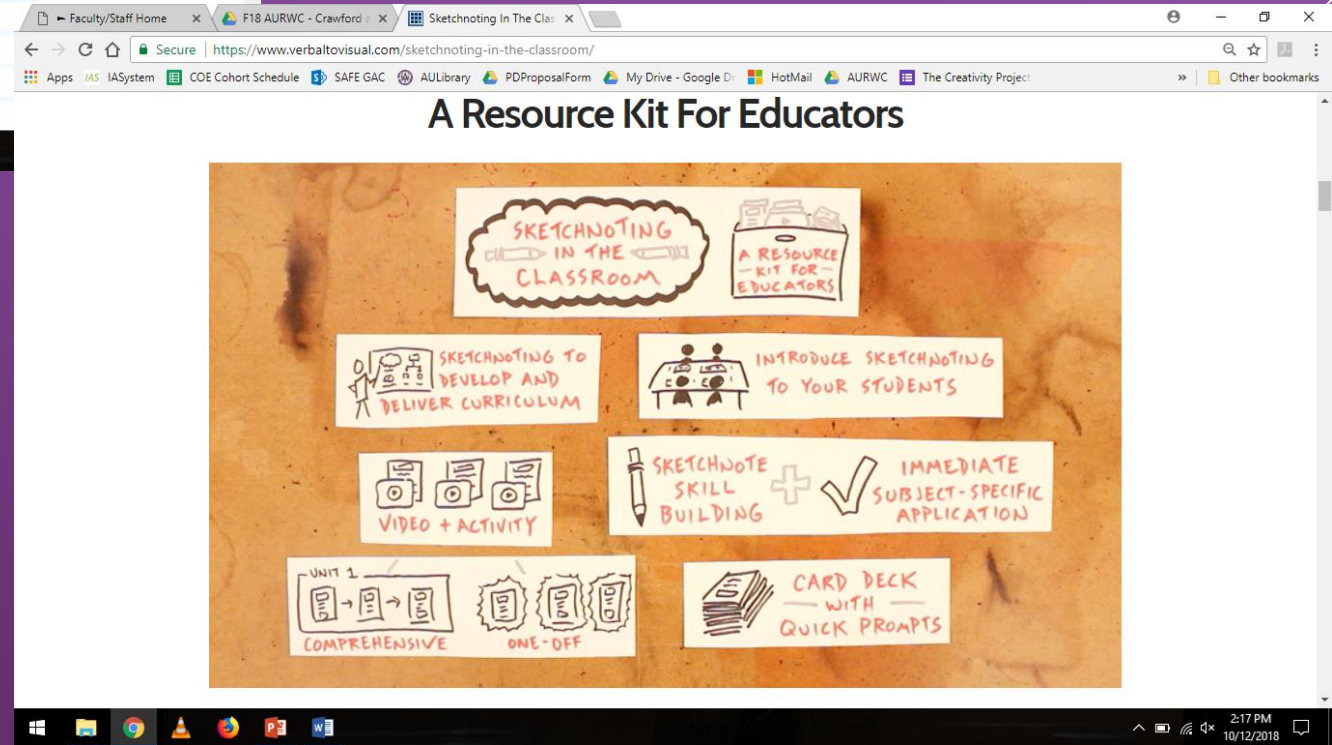
Examples of  
sketchnoting  
or  
Visual Notetaking







<https://www.verbaltovisual.com>



## Stop and Jot

Alone or with a partner, take 5 minutes to review these ideas and jot down ideas you think you might use from the Seven I's.

Jot these in your notes or on the interactive Google handout.



- ▶ Have students read scholarly biographies of creative individuals, looking for these themes. Discuss challenges of creativity and giftedness, negative responses and positive coping skills.
- ▶ "Feeding Back" can be used in many ways in the classroom to help students support one another's creativity and look more deeply into the work of others.
- ▶ Incubation, meditation, naivete are all good stress relievers. Bonus!




Other ideas

- ▶ Share your own creative endeavors and positive risk-taking experiences.
- ▶ Encourage the Core Attitude of self-discipline in students when you see talent or interest in a creative domain.
- ▶ Remember - creativity is not limited to the visual and performing arts! Creativity domains include mathematics, science, writing, athletics, architecture and technical drawing, computer science, design, problem solving and invention, entrepreneurship, and leadership.
- ▶ Call students' attention to these aspects of the creative process - in literature, movies, their behavior, or current events.

Other ideas

What thoughts do you have about incorporating these ideas into the classroom?

What thoughts do you have about writing Creative Thinking WEP goals from these ideas?





Take 5 minutes to jot down at least one specific task you can do next week to implement these ideas or to present them to teachers.



What's Next?

Click here for

[Piirto, J. \(2017\). The five core attitudes and seven I's of the creative process. In R. A. Beghetto & J. C. Kaufman \(Eds\) \*Nurturing creativity in the classroom\* \(pp. 131-161\). New York, NY: Cambridge University Press.](#)

What's Next?

Groman, J. (2014). The mirror: Creativity as seeing and being seen:

Authoethnography of a teacher. In J. Piirto (Ed.), *Organic creativity in the classroom: Teaching to intuition in academics and the arts* (pp. 267-283).

Waco, TX: Prufrock Press.

Groman, J. L. (2015). What matters: Using art-based methods to sculpt preservice teachers' philosophical beliefs. *International Journal of Education and the Arts* (16)2. 1-17.

Groman, J.L. (2015). *From calling to crisis: The growth process of teachers through crisis-like experiences*. Unpublished dissertation.

Groman, J.L. (2018). The bully's face: Using art to understand bullying in gifted children. *Gifted Child Today* (42). 12-18.

My articles