Creativity Strategies in the Classroom

Classroom Activity #3
Jen Flo

Select 6 strategies that you think you could use in your teaching to foster student creativity. To become more familiar with the strategies you select I want you to conduct some further internet research to

(1) identify the origins of these strategies if possible,

(2) define their purpose, explain or detail the steps that would be involved in using this strategy, and

(3) simply provide an example of where this strategy could be incorporated into a lesson or unit of study.

I don't want the lesson fully described since this is what you will create for next week's performance task.

Task

S.C.A.M.P.E.R.

Substitute: Think about replacing part of the problem, product or process with something else. By looking for replacements you can often come up with new ideas. You can change things, places, procedures, people, ideas, and even emotions.

Combine: Think about combining two or more parts of your problem to create a different product or process or to enhance their synergy. A great deal of creative thinking involves combining previously unrelated ideas, goods, or services to create something new.

Adapt: Think about adapting an existing idea to solve your problem. The solution of your problem is probably out there already. Bear in mind that all new ideas or inventions are borrowed to some degree.

Modify: Think about ways to modify, magnify, or minify your idea or product. Modifying your idea or parts of it may increase its perceived value or give you new insights about what components are most important.

Attribution to Roger Fisher for descriptions (from task cards received at Highly Capable Cadre Training at Whitworth University)

Based on the 1953 work of Osborn around divergent thinking and brainstorming, Bob Eberle developed a mnemonic that was easy to remember and addressed his key questions (Starko, 2018).

Put to another use: Think of how you might be able to put your current idea to other uses, or think of what you could reuse from somewhere else in order to solve your own problem. Many times, an idea only becomes great when applied differently than first imagined.

Eliminate: Think of what might happen if you eliminated or minimized parts of your idea. Simplify, reduce or eliminate components. Through repeated trimming of ideas, objects, and processes, you can gradually narrow your challenge down to that part or function that is most important.

Reverse: Think of what you would do if part of your problem, product or process worked in reverse or were done in a different order.

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https://www.youtube.com/watch?v=G8w0rJhztJ4

Could be used…

ELA

- Combine…what if two characters from different books met?
- Combine two literary styles (for example poems)

Science

- Design better questions for experiments by using SCAMPER questions

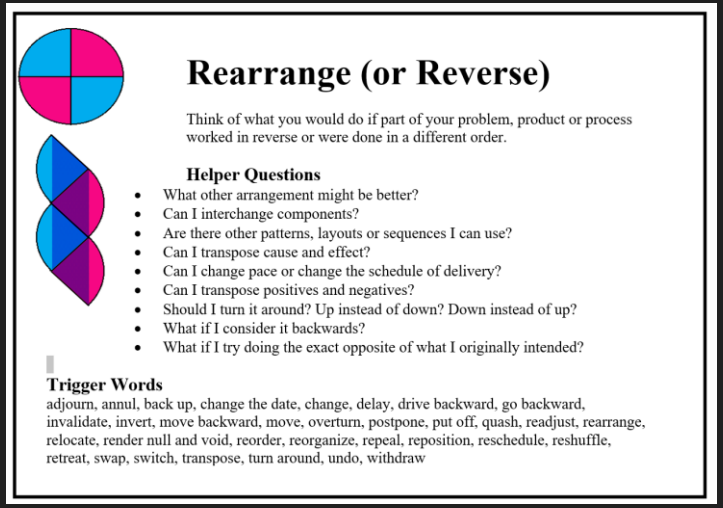
Math

- Reverse math – giving students the answer and have them identify the problem
- Select problem and generate questions that students have about that problem

Want to learn more?

- MindTools Website: https://www.mindtools.com/pages/article/newCT_02.htm
- Alane Starko Website: https://creativiteach.me/creative-thinking-strategies/scamper/
- Designorate Website: https://www.designorate.com/a-guide-to-the-scamper-technique-for-creative-thinking/

TIP: Make card with questions for each prompt and place them on a ring for students to access. This is an example from a set by Roger Fisher, Adjunct Professor at Whitworth University.



Rearrange (or Reverse)

Think of what you would do if part of your problem, product or process worked in reverse or were done in a different order.

Helper Questions

- What other arrangement might be better?
- Can I interchange components?
- Are there other patterns, layouts or sequences I can use?
- Can I transpose cause and effect?
- Can I change pace or change the schedule of delivery?
- Can I transpose positives and negatives?
- Should I turn it around? Up instead of down? Down instead of up?
- What if I consider it backwards?
- What if I try doing the exact opposite of what I originally intended?

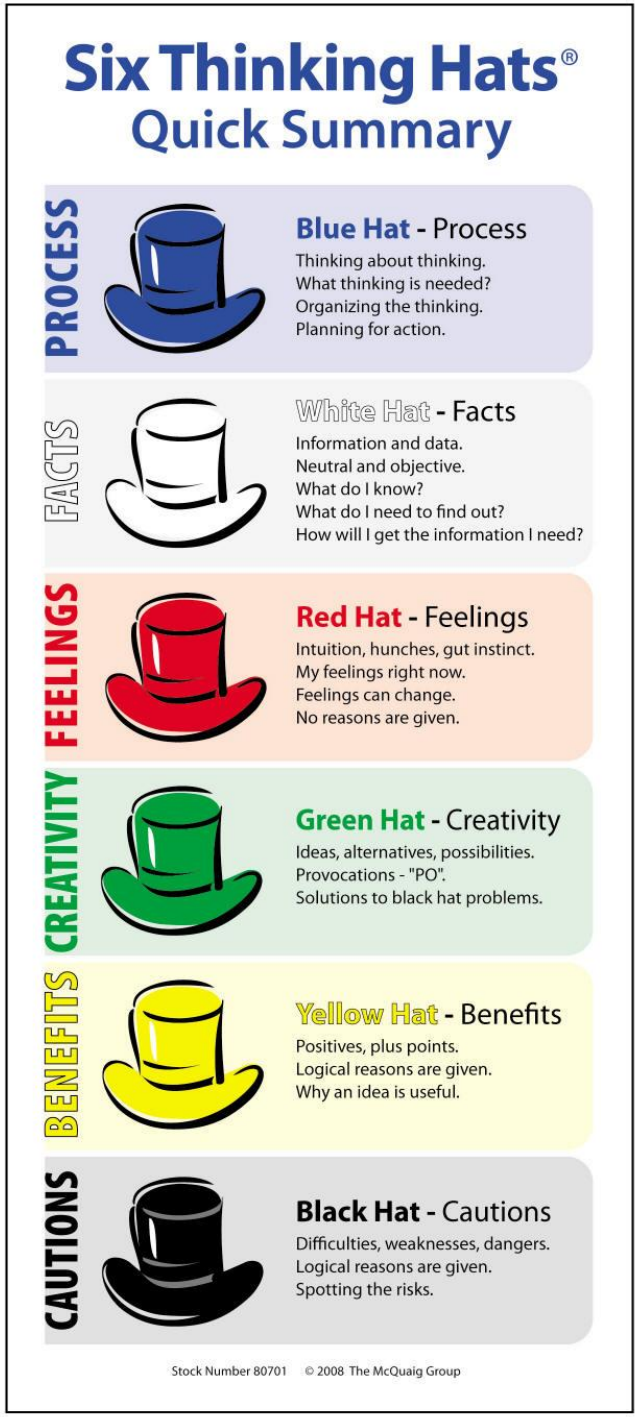
Trigger Words

adjourn, annul, back up, change the date, change, delay, drive backward, go backward, invalidate, invert, move backward, move, overturn, postpone, put off, quash, readjust, rearrange, relocate, render null and void, reorder, reorganize, repeal, reposition, reschedule, reshuffle, retreat, swap, switch, transpose, turn around, undo, withdraw

Six-Thinking Hats

"Powerful thinking tools developed by Dr. Edward de Bono. Dr. de Bono is world renowned for his research and development of thinking methods in the areas of creative and conceptual thinking. Based on Dr. de Bono's concept of ***operacy***, we focus the teaching of his thinking tools as 'thinking for action.'" (deBono Group website, n.d.)

The hats are an aid for lateral thinking and brainstorming. "This strategy is designed to break apart different types of thinking, allowing the thinkers to concentrate more efficiently on each type of though and ultimately provide a more rounded view of the task or situation (Starko, 2018, p. 174)."



https://youtu.be/rVfx3j8QaM8

Could be used…

Using the Six Hats to Respond to Literature

Blue Hat *controls which hat goes on and off. Blue Hat tells us when to switch hats and indicates what type of thinking is needed*

White Hat: ***Information and facts about the book***

- *Title*
- *Author and Illustrator*
- *Awards that the book may have won (CBC Picture Book, Bilby Award)*
- *Plot- what happened, story map, Top Level Structure,*
- *Characters- names, what they look like*
- *Setting*

Red Hat: ***Discussing feelings, likes and dislikes***

- *How did the book make you feel?*
- *How did you feel when the character did…?*
- *How did the ending make you feel?*
- *Did you like the story, illustrations, characters etc?*

Yellow Hat: **Benefits, good points and advantages**

- What was the advantage of solving the problem that way?
- What are the advantages of…?
- What are all the good points about…the character, the setting, the ending etc?

Black Hat: **Disadvantages, dangers and problems**

- What are the dangers involved in visiting … (the setting of the book)?
- What are the disadvantages in trying to solve problems that way?
- When ____ did _____, what problems did they encounter?

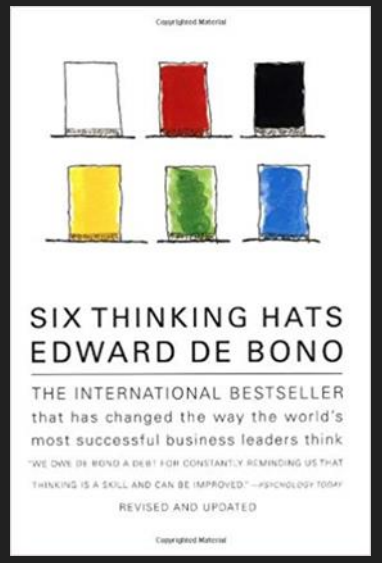
Green Hat: New ideas, creating, adapting, innovating

- Lets write a new ending
- Write an acrostic about the main character
- Draw new illustrations for the story
- Think of a different way to solve the problem
- Write an innovation on the story

Retrieved from Highland Literacy Blog

Want to learn more?

- DeBono Group Website: http://www.debonogroup.com/six_thinking_hats.php
- Middle Web Blog Post: https://www.middleweb.com/27750/rigor-made-easy-3-ways-to-go-deeper/
- Highland Literacy Website: https://highlandliteracy.com/reading-2/de-bonos-six-hats/
- Mindtools Website: https://www.mindtools.com/pages/article/newTED_07.htm
- Storyboard That Website: https://www.storyboardthat.com/blog/e/six-thinking-hats-in-the-classroom



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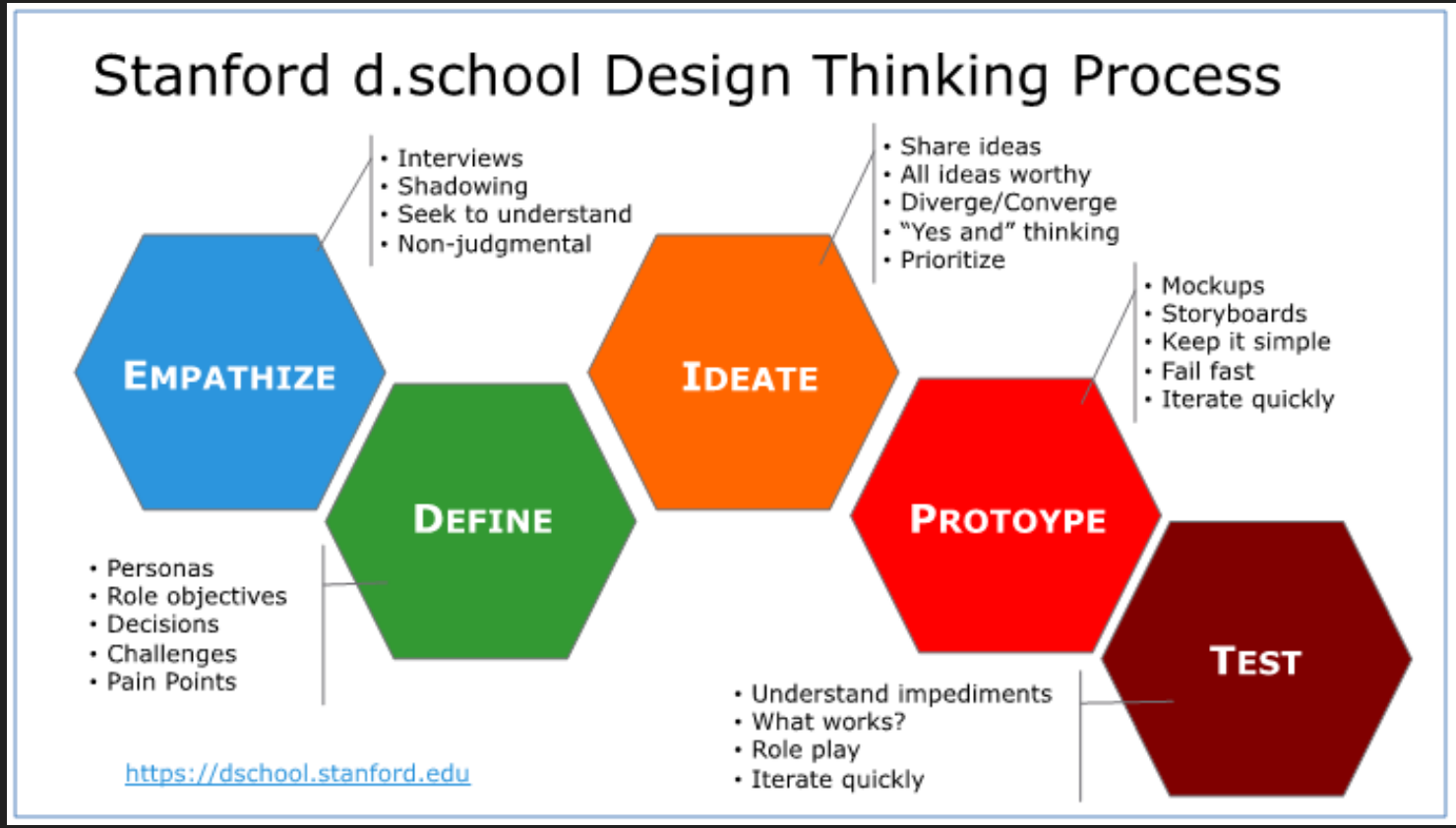
Design Thinking

"Design thinking can be used by teachers addressing problems in schools or curriculum…some schools are choosing design thinking as an organizing principle of their curriculum (Starko, 2018, p. 181)."



https://www.datasciencecentral.com/profiles/blogs/can-design-thinking-unleash-organizational-innovation

https://www.youtube.com/watch?v=I888UXlens4

Could be used…

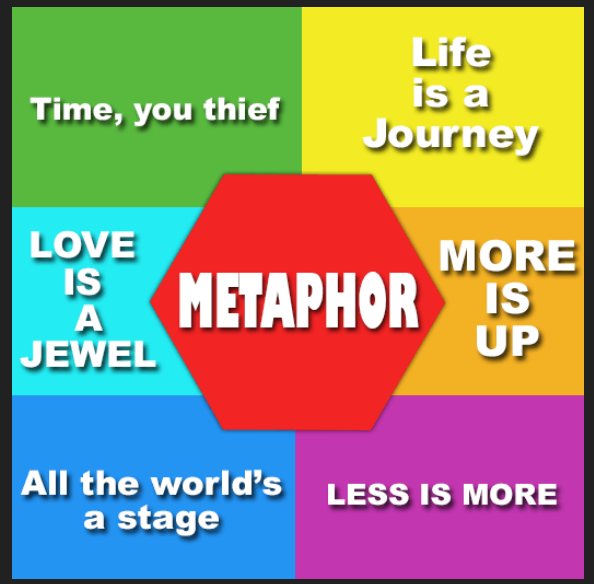
- ‘Real World’ Projects in the classroom (lesson plans galore!!): http://icanlessonplans.dfcworld.com/
- Solve problems within schools; with student driven solutions.
- Identify ways to connect with families at schools
- Recruiting teachers and volunteers
- Developing better systems – report cards, feedback, etc.
- And….

Want to learn more?

- Ideo's David Kelley on "Design Thinking:" https://www.fastcompany.com/1139331/ideos-david-kelley-design-thinking
- IDEO creators 60 Minute Interview: https://www.youtube.com/watch?v=IJMeLbFLqW8
- Can Design Thinking Unleash Organizational Innovation: https://www.datasciencecentral.com/profiles/blogs/can-design-thinking-unleash-organizational-innovation
- Design Thinking in Education, Edutopia: https://www.edutopia.org/blog/design-thinking-empathy-challenge-discovery-sharing-susie-wise
- Design for Change Website: https://www.dfcworld.com/SITE
- Design Thinking for Educators Website: https://designthinkingforeducators.com/
- Design Thinking for Educators Scribd Toolbox: https://www.scribd.com/document/254597501/DesignThinking-for-Educators-IDEO

Using Metaphors and Analogies

Metaphors and analogies bring together "remote ideas to stimulate a new point of view or to forge a new synthesis. Among the most powerful tools in the process are metaphors and analogies. Their use can also be considered a mechanism for divergent thinking because it can produce many varied ideas, but it generally is focused more on the types of ideas produced than on the number. In analogical thinking, ideas from one context are transferred to another in a search for parallels, insights, fresh perspectives, or new syntheses. (Starko, 2018, p. 183)."



https://www.youtube.com/watch?v=8gI4DEkzLkY

Could be used…

Science

- Give super powers to elements
- Compare body systems to kitchen utensils

Math

- Addition is like_____ because (simile).
- Identify the eight mathematical standards as objects (create icons).

ELA

- If _____ (book character) was a _____ (fruit/vegetable), he/she would be because…
- Describe a human emotion as an inanimate object.

Want to learn more?

- Metaphorical Thinking on Mindtools Website: https://www.mindtools.com/pages/article/newCT_93.htm
- Creativiteach Website: https://creativiteach.me/creative-thinking-strategies/metaphors-and-analogies/
- LEGO BuildToExpress Guide and Activity Pack: https://education.lego.com/en-us/support/buildtoexpress/curriculum-download-support
- LEGO Serious Play: https://www.lego.com/en-us/seriousplay
- Metaphor Checker (does it pass the test?): http://knowgramming.com/metaphor_checker.htm
- Andy Eklund Website: http://www.andyeklund.com/metaphors-and-creative-thinking/

Synectics

In 1961, creator William J. J. Gordon described synectics as the "the joining together of different and apparently irrelevant elements (Gordon, 1961, p. 5)."

"The basic processes of Synectics are 'making the strange familiar' and 'making the familiar strange' (Prince, 1968, p. 4). To make the strange familiar, you combine something familiar with a new problem or situation to solve the problem or come to an understanding. To make the familiar strange, you also combine the something new or strange with something familiar, this time you gain new insights into or perspectives on the already familiar idea. These two processes are facilitated through the creation of various types of analogies. (Starko, 2018, p. 184)."

https://www.youtube.com/watch?v=B6zVWrbwijA

Analogy Types

Direct Analogies

- Look for parallels between one idea and another
- Successful for young children
- Powerful for creation of visual images.

Personal Analogies

- Students are asked to become the object they describe (factual)
- Students describe experience with common emotion
- Students empathize with living thing
- Students empathize with nonliving thing. Abstract comparison.

Compressed Conflicts

- Consider opposing ideas at the same time
- Identify words related to the topic that are conflict with each other.
- Abstract thinking. Most appropriate for upper elementary and above.

Could be used…

- Consider a time in history who might be considered a "generous thief." Creative writing tasks lend themselves to this work.
- Stretching or practice exercises.
- Investigate previously learned material from a new perspective
- Students may process material through activities that create the environment of humor, open-endedness, and critical analysis.

(Starko, 2018, p. 187)

Want to learn more?

- Synectics World Website: http://synecticsworld.com/synectics-as-a-creative-problem-solving-technique/
- Synectics Presentation by Tanner & Jennings: https://www.slideserve.com/ishi/creative-problem-solving-synectics-in-education-lori-tanner-cindy-jennings
- Oceans of Excellence Website: http://www.oceansofexcellence.com/synectics-creative-connection-making/
- Extranormal Video: https://www.youtube.com/watch?v=kU71PkSFn4o
- Synectics Lesson Example (Youtube): https://www.youtube.com/watch?v=AUKPFIAUN3M

Visualization

"Visualization involves creating mental images of something that cannot be seen or that does not exist (Starko, 2018, p. 193)."

This technique can be used to reinforce course content and students may be asked to see themselves in a position in history, in a story, or as a participant in those events.

Teachers find that having a script will help them deliver the best experience.

Could be used…

- To assist readers in developing reading comprehension skills. Developing a deeper understanding of their reading. Relating to a scene, environment, situation, or character.
- To describe a singular agent in an event. An example would be in science, describing food as it goes through the digestive system.
- Experience history.

Want to learn more?

- Tech Crunch Article by Mark Suster: https://techcrunch.com/2011/01/17/how-i-use-visualization-to-drive-creativity/
- Education World Article: https://www.educationworld.com/a_curr/profdev/profdev094.shtml

Resource:

Starko, A. J. (2018). Creativity in the classroom: Schools of curious delight. New York, NY: Routledge.