Greater Good in Education
SCIENCE-BASED PRACTICES FOR KINDER, HAPPIER SCHOOLS

CONTEMPLATING AWE-INSPIRING SYSTEMS

"There is something bigger than fact: the underlying spirit, all it stands for, the mood, the vastness, the wildness."

–Emily Carr

OVERVIEW

Students create a systems map of a favorite topic and contemplate the vast interconnectedness revealed through the map.

LEVELS

- Middle School
- High School
- College

PLANNING FOR IT

WHEN YOU MIGHT USE THIS PRACTICE

- To broaden students' thinking
- To increase students' sense of connection to the world around them
- To encourage prosocial behavior
- To support student well-being

TIME REQUIRED

- ≤1 hour

MATERIALS

- Paper
- Pencil/pen

LEARNING OBJECTIVES

Students will:

- Create a systems map of a chosen topic
- Broaden their thinking about the topic

- Reflect on the vast interconnectedness of the system

ADDITIONAL SUPPORTS

- Making Practices Culturally Responsive
- Adapting Practices for Students with Special Needs
- Making a Practice Trauma-Informed
- Making Classrooms and Schools Trauma-Informed and Healing-Centered

CHARACTER STRENGTHS

- Awe
- Humility
- Curiosity

SEL COMPETENCIES

- Self-Awareness
- Social Awareness

MINDFULNESS COMPONENTS

- Focused Attention
- Open Awareness

HOW TO DO IT

REFLECTION BEFORE THE PRACTICE

- Take a moment to think of a school-related topic, such as school climate, educator well-being, or parent/community relationships. Or, to take a break from school, choose a topic that you find incredibly interesting. Take a sheet of paper and write down the topic in the middle of the page.
- Next, on the same sheet of paper, write down every element you can think of related to the topic. For example, educator well-being might include elements such as class size, workload, school leadership support, collegial relationships, student relationships, planning time, decision-making, emotional skills, family needs, etc.
- Now, draw circles and arrows to demonstrate how the different elements are related to each other. For instance, draw a circle around “school leadership support” and draw arrows from the circle to “class size” and “decision-making.” Draw an arrow from “collegial relationships” to “workload”, “planning time”, and “emotional skills.” Then draw an arrow from “workload” to “class size.” Keep going until you’ve exhausted all the connections and relationships you can think of.
- Finally, take a step back, take a couple of deep breaths, and contemplate the vast interconnectedness of the system associated with this topic. Notice any thoughts or emotions that arise. Do you feel a sense of awe (the feeling of expansiveness that shifts your thinking) or a connection to something larger than yourself? Or do you feel small in the grand scheme of things? Or something else?

- How has this exercise changed your thinking about the topic?

INSTRUCTIONS

BEFORE YOU BEGIN

Almost anything that you can think of is part of a vast system. In biology, a single cell can form part of a larger network that sends signals throughout the brain to help our bodies function. In math, the many formulas have a rich history that led to their discovery/creation, and in the present, these formulas allow us to perform many calculations that can help us do remarkable things like designing sturdy structures and predicting economic outcomes.

No matter what subject you teach, you can incorporate this practice into your lessons to help students begin to understand how various aspects of life exist within a system, the different elements of which impact different systems work. The experience of discovery and connection- making can help inspire a sense of awe among students—an emotional response to something vast that transcends our understanding of the world. Such an experience can shift our focus from ourselves to others, thus fostering more prosocial behavior in your classroom.

CREATING THE SYSTEMS MAP

- In pairs, small groups, or individually, have students think about a topic relevant to the subject you are teaching that they find interesting and write it down in the center of a piece of paper. This might be a kind of music, a societal issue, an aspect of nature, a sport, a time in history, a scientific concept, or something else.
- Next, have students write as many elements they can think of related to the topic. Rather than create a list, have students write the elements all over the sheet of paper. This will make it easier to connect them. In other words, they should create a "cluster map" of the elements.
- To complete their map, have students draw connections between the different elements. When they're finished, students should have a map that is filled with words, circles, and squiggly lines that looks a bit chaotic.

SEEING THE SYSTEM AS "AWESOME"

- Invite students to take part in a "Contemplative Reflection" on the map they just created—one that will help them experience the vast interconnectedness of their system map.
- Invite students to sit back in their chairs, take a few deep breaths, and find a comfortable position in which to look at their cluster maps as a whole (perhaps at eye level or on the table in front of them).
- Begin by asking them to consider the following questions silently to themselves. Go slowly through these questions, giving them plenty of time to contemplate their reactions:
    - *What do you notice when you observe the lines, figures, and visual patterns on your map?*
    - *Do you see a whole system or parts of that system? Or perhaps both at the same time?*
    - *Now focus on just one component of your map. How does that piece link to the others? Trace its pathway in your mind from one component to another. How does it link to other parts of the system as a whole?*

- *Now think beyond your map. Imagine that pathway (and other pathways) and all the actual relationships involved.*
- *Consider the ripple effects of a network of ideas, actions, behaviors, movements as they work together.*

CLOSURE

- Give students a few minutes to journal about this experience. You might ask some of the following questions:
  - What emotions and/or thoughts came up for them as they contemplated their systems map?
  - Did anything surprise them? If so, what?
  - Did this practice change their thinking about the topic, systems, or about how the world works in general? If so, how?
- Invite a few students to share their responses in pairs, small groups, or with the entire class.

SOURCE

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REFLECTION AFTER THE PRACTICE

- Did students indicate experiencing a sense of interconnectedness, awe, or wonder?
- Did you notice any differences in your student's thinking, curiosity, or motivation afterward?
- How might you encourage students to continue thinking in systems?

THE RESEARCH BEHIND IT

EVIDENCE THAT IT WORKS

Researchers studying 557 middle school students from China found that feeling awe on a regular basis buffered the impact of greed on students' tendency to cooperate.

In another study, researchers had 353 youth from the Netherlands ages 8-13 watch a video clip that prompted either joy, awe, or a neutral response. Those who watched the awe video showed greater prosocial behavior, donating their experimental earnings towards benefitting refugee families. In addition, they had greater parasympathetic nervous system activation—the system that calms us down.

Finally, a study of 1,064 university students from Spain and Ecuador found that inducing awe through a video increased students' sense of common humanity and intention to engage in prosocial behavior.

WHY DOES IT MATTER?

The challenges faced by our world today are complex and vast. To even begin to understand these problems, let alone solve them, requires us to examine them through a systems lens. In other words,

viewing them as one element of an interconnected “whole” that has a purpose. For example, solving climate change cannot be achieved by seeing it solely as the result of the world’s dependence on fossil fuels.

The experience of awe opens students’ eyes to the interconnectedness of our world. Awe inspires students, making them feel connected to something larger than themselves and changing how they think about their place in the world—a powerful tool for motivation and engagement. Indeed, awe broadens students’ sense of humanity, which, in turn, motivates them to engage in more prosocial behavior, such as helping to combat climate change.

TERMS OF USE