SEE LEARNING

A Curriculum for Educating the Heart and Mind

HIGH SCHOOL

CHAPTER 7

We're All In This Together

7

Overview

In this chapter, we explore systems thinking. All living beings live in interconnected and interdependent ways. We impact and are impacted by every other living thing within these systems. "Our innate systems intelligence, just like our innate capacities to understand self and others, needs to be cultivated," writes Peter Senge, one of the world's leading systems thinkers, in *The Triple Focus*[1]. Our systems intelligence is our awareness of our shared interdependence and our ability to act based on this awareness. When we deepen our understanding of the interdependent nature of life, we begin to understand kindness, compassion, and good intention in a more realistic manner. Being a systems thinker requires discernment. Discernment is the capacity to anticipate the impact of our actions. Discernment consists of the ability to assess and respond to different and changing factors to maximize benefit and minimize harm. This chapter helps students grapple with issues of complexity so they can better understand themselves and world around them. Through this understanding students gain the capacity to engage more skillfully in our application of compassion.

Chapter 7 of the curriculum fosters the competency of appreciating interdependence by focusing on systems and systems thinking. The topics covered in previous chapters have prepared students to become systems thinkers. In Chapter 1, students drew an interdependence web, showing how many things are connected to a single item or event. Chapters 3 and 4 explored how emotions arise from causes and are contextual and what it takes for an emotional spark to escalate into a raging fire, thus affecting everything around it. In Chapters 5 and 6, students explored identity, forgiveness, and compassion for others. Therefore, systems thinking has been built into the entire curriculum, but in this chapter, it is approached directly and explicitly.

What is Systems Thinking?

SEE Learning defines systems thinking as: "the ability to understand how persons, objects, and events exist interdependently with other persons, objects, and events, in complex networks of causality." Students have an innate capacity for systems thinking. Although they may not use the term "system," they regularly engage in systems thinking. Navigating complex relationship dynamics, identity explorations, and abstract thinking about one's place in the world are all ways that teenagers begin exploring systems in their desire to make meaning from the world and how they fit within it. A significant objective of Chapter 7 is to make what is often invisible to adolescents visible. This chapter examines systems and systems thinking through the realities within which students live. Younger elementary and middle school students are introduced to systems through concepts such as the family and the classroom. This high school curriculum focuses on more complex systems (environment, politics, economy, society, etc.) to connect with the more complex reality of their

[1] Goleman and Senge, *Triple Focus: A New Approach to Education*.

experiences. This chapter sets the stage for systems thinking by recognizing that a system has parts and that those parts are interrelated. Systems are dynamic and the parts are continually changing. Even the rules of the entire system can change over time. Systems can be physical (such as a weather system or a mechanism) and/or social (a group of people or a movement). The human body, therefore, is a good example of a system, as is our ecosystem.

Students can apply systems thinking to anything, including any object, process, idea, event or even themselves. This is because it is an approach to thinking about interrelationships. This approach is distinct because it considers interactive, dynamic entities within context - that is, as interdependent parts of larger, complex wholes. From this perspective, a heap of wet clothing can, in fact, function as a system. When the moisture of one soggy piece of clothing begins to seep into the other pieces, mold can start to grow. This will spread throughout the whole pile. The opposite of systems thinking is static, unconnected, independent, unity, and unrelated thinking that does not consider anything beyond oneself or it is the false belief that things/experiences exist in isolation. A systems thinker is a holistic thinker who anticipates unintended consequences and considers the impact of their behavior on others rather than just themselves. The Waters Foundation notes these habits of mind that characterize "systems thinkers"[2]:

- Seeking to understand the big picture
- Seeing patterns/trends in systems
- Recognizing how a system's structure causes its behavior
- Identifying cause and effect relationships
- Surfacing and testing assumptions
- Finding where unintended consequences might arise
- Finding leverage points to change a system
- Resisting making quick conclusions

SEE Learning includes a chapter on systems thinking because compassion and compassionate engagement must consist of the ability for discernment. Complex systems thinking is critical for this discernment. The goal of this chapter is to support students in their ability to engage intentionally in systems thinking to support ethical and compassionate engagement. SEE Learning also supports systems thinking by having students work and learn together. By keeping the focus on action and thinking together and facilitating opportunities for students to learn from each other 3, this program uses traditional learning and thinking strategies to further support systems thinking skills. These

[2] Waters Foundation, *Systems Thinking in Schools* (2014).

experiences are intentionally structured to give students opportunities to learn from each other. Students arrive at this chapter already having cultivated many systems-thinking skills and will now benefit from a deeper exploration.

Systems Thinking and Ethical Engagement

In SEE Learning, systems thinking works with compassionate engagement to help students develop ethical and responsible decision-making. In SEE Learning, ethics are taught by encouraging students to cultivate discernment about their decisions and the impact those decisions have on themselves and others. Systems thinking is powerful when combined with compassion because it empowers students. Students are empowered because their decisions become actions that matter beyond their immediate circle of impact.

Systems thinking is transformative. When students become aware of how interconnected they are with others, they begin to perceive the world differently. They begin to recognize the many ways people have supported and cared for them. This supports the cultivation of gratitude, appreciation, and a sense of connection. Deep engagement with systems thinking can bring about profound shifts in perspectives students have about themselves, others, and the world. These shifts change how a student analyzes a problem or situation. A problem taken out of isolation and critically examined through broader complex contextual dynamics is understood and addressed very differently. This reframing, over time, allows for a greater sense of connection with others, gratitude, respect, understanding, patience, and even forgiveness. These processes take time, but compassionate systems thinking can cultivate ethical awareness if approached in this way. This awareness can bring about critical insights that deepen experiences until they become embodied understanding.

Learning Experience 1, "The Interdependence of Life" invites students to examine interdependence and ethics. Students will revisit the definition of interdependence and compassion and investigate the purpose of ethics. Students will create an interdependence web of their food. This activity aims to strengthen students' understanding of interdependence. The goal of the learning experience is for students to identify how awareness of interdependence leads to a sense of gratitude and appreciation.

Learning Experience 2, "Developing Discernment" will guide students through a life cycle analysis of a cell phone. The students will then apply the analysis to things they use regularly, understanding how different components of an object have different life spans and environmental impacts.

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[3] Goleman and Senge, *The Triple Focus*.

Students will begin to think about the likely consequences of using and eventually discarding everyday objects, and thus developing an ethical discernment toward the usage of daily objects.

Learning Experience 3, "Exploring Systems Thinking" engages students to examine the concepts of "system" and "systems thinking." Students are provided with a simple "Systems Thinking Checklist" that can be used to see the systemic nature of any person, object, or event. They will apply the checklist to analyze the human circulatory system. Students will continue to explore the role of systems thinking in cultivating ethical discernment and recognizing common humanity.

Learning Experience 4, "Understanding Complex Issues" challenges students to identify and explore personal, local and global systems. This learning experience then engages students to understand the benefits and problems related to such systems. Students will choose one complex issue to explore more deeply and use systems thinking to address the issue. This learning experience will enable students to apply the skill of discernment as they work to understand systems at different levels.

Learning Experience 5, "Holistic Perspective Taking" allows students to analyze a complex issue that affects them. Students are then asked to see how the same issue could be perceived in different ways. They are prompted to notice that each perspective can help in finding solutions. Students will practice considering all of the facts of the issue by engaging in holistic perspective taking with the goal of approaching each other with curiosity and practicing mindful listening to truly consider each other's perspectives.

Learning Experience 6, "Habits of a System's Thinker: Considering Impact" guides students to examine a system or an issue of their choice. Students will engage in systems thinking by practicing ethical discernment when considering the impact of personal and group choice and responsibility within a system. Students will consider both short- and long-term consequences of actions, identifying possible root causes of a problem, noticing unintended consequences and devising possible solutions to the problem. The final reflection will prompt them to investigate the downsides of not engaging in systems thinking and the benefits of being a systems thinker.

Student Personal Practice

Once students learn how to notice feedback loops, systems, and systemic structures — and to map them using interdependence drawings — they can use this skill again and again, finding new applications. These strategies can also be used when teaching history, social studies, science, and other subjects. Encourage your students to look for systems and connections in their studies and in their lives. This can start with encouraging them to do interdependence drawings and drawings

of feedback loops for things they are interested in. This sustained practice will help them gain ever increasing familiarity with this type of thinking.

Systems Thinking Connections to the SEE Learning Framework

Domains	SEE Learning Competency	Connection to Systems Thinking
Personal	Awareness and Attention Training	Cultivation of awareness of how one's actions impacts oneself and others both now and into the future
Personal	Self-Regulation	Support the development of inhibitory and impulse control as awareness is cultivated about current and future impacts
Personal	Self-Compassion	Gains the capacity to cultivate a broader perspective and not get stuck in a negative bias feedback loop by seeing all of the factors that our outside of one's control
Social	Interpersonal Awareness	Develops insight into the ways in which individuals who are designated friend, stranger, and enemy can shift and are not rigid

Domains	SEE Learning Competency	Connection to Systems Thinking
Social	Compassion for Others	Strives to alleviate the suffering of others on both a aspirational and engaged level
Social	Relationship Skills	Cultivates a sense of appreciation for others by seeing how they contribute to one's well-being and happiness
Systems	Appreciating Interdependence	Develops the skill of systems thinking and actively utilizes it in one's life to promote personal wellbeing
Systems	Recognizing Common Humanity	Makes visible the fundamental reality that like us others what happiness and not to suffer
Systems	Community and Global Engagement	Cultivate the skill and determination to engage in one's community at different levels to provide the benefit and wellbeing of others

Teacher Personal Practice

Your ability to encourage the innate systems thinking abilities of your students will be stronger the more you engage with systems thinking yourself. You are encouraged to regularly reflect on the concepts in this chapter. Sometimes when we think about the systems we live in, especially systemic structures, we may feel disempowered, because we don't feel like we can change the whole system. This can happen especially if we start by thinking of the very large-scale systems we live in, where it seems our individual actions can have little impact. You are encouraged to start with looking for very small examples of systems and feedback loops—in a family, a relationship with a friend, or in your classroom. What systems and feedback loops can you identify in these areas? What happens when you try to introduce a change into a feedback loop, or shift a negative feedback loop to a positive one? If you feel frustrated that your first experiments do not yield immediate results, remind yourself to take heart and that you will build this "muscle" over time.

Similarly, you can look for small instances of interdependence. Can you think of a time when something that started very small led to a change for the better in your life? You can experiment and see what happens if you make some small improvement or change in your home life, in your classroom, or in your school. After making the change, watch for and reflect on any positive consequences, days or weeks later. Further resources for engaging in systems thinking can be found in the online SEE Learning educator preparation platform.

Further Reading and Resources

- *The Triple Focus: A New Approach to Education*, by Daniel Goleman and Peter Senge (More Than Sound, 2014).
- *The Habit-Forming Guide to Becoming a Systems Thinker* by Tracy Benson and Sheri Marlin (Systems Thinking Group Inc., 2017).

Chapter 7: Systems Thinking

Learning Experience 1: Interdependence of Life
Learning Experience 2: Developing Discernment
Learning Experience 2: Exploring Systems Thinking
Learning Experience 4: Understanding Complex Issues
Learning Experience 5 Developing Holistic Perspective
Learning Experience 6: Habits of a Systems Thinker: Considering Impact