LATE ELEMENTARY SCHOOL

CHAPTER 7

We're All in This Together

7

Overview

In our increasingly complex world, care and compassion alone are insufficient to ensure effective ethical engagement in the world. Rather, good intentions must be complemented with responsible decision-making based on an understanding of the wider systems within which we live. Students must be prepared to grapple with issues of complexity so that they can better understand the world around them, and better engage with and within it.

Chapter 7 of the curriculum focuses on systems and systems thinking. These are not entirely new topics, but have been introduced throughout the curriculum. In Chapter 1, students drew an interdependence web, showing how many things are connected to a single item or event. In Chapters 3 and 4, they explored how emotions arise from causes and within a context, and that a spark can turn into a forest fire, affecting everything around it. Systems thinking is 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."

While this may sound complicated, even small children have an innate capacity for systems thinking. Although they may not use the term "system," they have an innate understanding that their family or home environment is complex unit with specific dynamics. Not everyone in a family or classroom likes the same things or acts the same way; and changing one thing in these systems can affect everyone. What is necessary in education is to take this innate capacity for systems thinking and cultivate it further through practice and application.

A system is something that has parts that are interrelated. It is complex, meaning that it cannot be reduced to just a single process, and it is dynamic, meaning the parts are continually changing and even the rules of the entire system can change over time. The human body, therefore, is a good example of a system, as is our ecosystem. A heap of laundry clothes piled on the ground does not appear to us to be a system, because its parts don't seem related to each other in any clear way.

Interestingly, however, systems thinking does not mean a type of thinking that only applies to a subset of things we might call "systems." It is rather a type of thinking that can be applied to anything, including any object, process, or event. This is because it is an approach to thinking about things. Its distinctive feature is that it approaches things not as isolated, static entities, but as interactive, dynamic entities within context—that is, as interdependent parts of larger, complex

wholes. From this perspective, we can see that a heap of clothes can in fact function as a system, such as when the moisture of one soggy piece of clothing begins to seep into the other pieces, and mold then begins to grow and spread throughout the whole pile. The opposite of systems thinking is thinking about things as if they were static, independent, unconnected, and unrelated to anything beyond themselves.

Being able to engage in the process of thinking intentionally—and become more skillful at it—is the intention behind including systems thinking in SEE Learning. This doesn't always have to be through explicit teaching about systems. As Daniel Goleman and Peter Senge point out, systems thinking skills can be cultivated in simple ways by having students work and learn together; by keeping the focus on action and thinking together; and by facilitating opportunities for students to learn from each other.[1] Again, you will note that these are all principles built into each chapter of the SEE Learning curriculum. Your students arrive at this chapter already having cultivated some systems thinking skills, and will now benefit from a deeper exploration.

Systems Thinking and Ethical Engagement

Sometimes students are taught to analyze systems without a clear connection being made to basic human values and ethical engagement. In SEE Learning, however, one of the important reasons to include systems thinking is because it is an essential part of ethical and responsible decision-making. If decisions are repeatedly made without thinking about the longer-term consequences for oneself and others, they are far less likely to be responsible and beneficial. In SEE Learning, ethics is not presented as a set of mandates from an authority. Rather, students are encouraged to cultivate discernment about their decisions and the impact those decisions have on themselves and others. Systems thinking becomes especially powerful and relevant when it is combined with empathy and concern for all involved, as well as a recognition of our common humanity. It should also empower students to know that their choices and actions matter, and can have impact beyond their immediate circle.

The Learning Experiences

Learning Experience 1, "It Takes a Village," returns to the idea of interdependence, first explored in Chapter 1, which is central for understanding systems. By using the example of a child their age, students identify the many forms of care and support a child needs from others to arrive at their current age. Recognizing the value and care that one has received and that one still receives on

[1] Goleman and Senge, *Triple Focus*.

a daily basis can help students realize that they are not alone, that they are valued, and that they can be confident in moving forward knowing that others are supporting them. It also shows that all individuals live within and are shaped by a systems context.

Learning Experience 2 introduces students to the terms "system" and "systems thinking." First they are shown visual examples of very simple systems processes, for which you can use a variety of objects or sets of objects. They then identify additional systems using a simple "Systems Checklist" that can be used to approach any person, object, or event through a systems thinking lens. Lastly, they analyze the school as a system and explore the various people in the school and how the school is connected to and depends on each person.

In Learning Experience 3, students learn about feedback loops through a simple story. A feedback loop is a circular process that keeps getting stronger and building on itself unless some internal or external change breaks the cycle. In the example story, two students act unkindly towards each other, creating a reinforcing negative feedback loop. Later in the story, two other students act kindly towards each other, strengthening their friendship in a positive feedback loop.

In Learning Experience 4, students explore how feedback loops have effects that go beyond the immediate individuals involved and can impact entire systems. Taking the same story used in the previous learning experience, they create an interdependence drawing that maps the effects of such actions within a system. They then look at a simple helping action that they themselves can take, how it could lead to a feedback loop, and what other people it could affect.

These learning experiences cover some of the basic concepts and approaches of systems thinking, and lay the foundation for the final Capstone Project, which reinforces their learning and allows them to put it into practice around a particular issue.

Student Personal Practice

Once students learn how to find feedback loops and systems, and map them using interdependence drawings, they can use this skill again and again, finding new applications. These methods can also be used to teach history, social studies, science, and other subjects. Encourage your students to look for systems 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 like and are interested in. This sustained practice will help them gain ever increasing familiarity with this type of thinking.

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 reflect upon the concepts in this chapter personally and on a regular basis.

Sometimes when we think about the systems we live in, 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 to, or in your classroom. Can you identify systems and feedback loops 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? Don't be frustrated if at first your experiments do not yield immediate results.

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 then 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, do you see any 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.