

INTRODUCTION

The Imperative

*“Before you finish eating breakfast this morning,
you’ve depended on more than half the world.”*

—Dr. Martin Luther King, Jr., Minister and Civil Rights Activist



Early each morning, before the sun rises above the horizon, our students unknowingly take part in multiple local and global systems. Whether they eat breakfast at home or at school, this meal is the outcome of a complex journey. From the oats in their cereal, to the apples in their juice, intricate stories exist behind each of these foods. The apples grew crisp and ripe with the help of millions of pollinators and a predictable temperate climate with warm days and cold nights. The fruit was likely harvested by migrant workers who sought to improve their economic prospects by leaving home. Placed on cargo ships that sailed across the ocean, the apples even played a role in the global economy, when they were bought and sold as goods in our neighborhood supermarkets. And that’s just breakfast. Before they see us each morning, our students also get dressed, travel to school, and even use devices to communicate with family or friends, which are all connected to their own complex processes. Imagine zooming out to view the planet as a whole, seeing all those invisible threads of connection spread, linking each student to

people and places all around the world. Our interconnectedness provides us with access to resources, people, and ideas from around the world, yet can also propel unintended consequences.

As the COVID-19 pandemic spread in 2020, educators saw firsthand the extent to which these global connections touch our lives. Flights were canceled, and loved ones were seen less frequently. With disruptions to manufacturing and trade, we bought up essentials whenever they were in stock. Navigating virtual learning environments, we grappled with meeting the social-emotional needs of young learners, who were physically removed from their classmates. And hearing our students' questions about the ripple effects the virus created in our lives, we were challenged to help them understand the world around them. How does the virus make people sick? How did it travel around the world? Why are essentials that were once readily available now unavailable? What role do politicians and public servants play in reducing the severity of the pandemic? When will it end? Answering such questions requires interdisciplinary thinking and comfort with ambiguity. They cause us to reflect on whether our curriculum, broken into discrete subject areas, adequately prepares students to think critically, act responsibly, and seek solutions to complex, interconnected issues.



This book unpacks what it means to educate in the context of our complex world. While recognizing that globalization has in many cases increased levels of inequality, promoted consumption, and made dominant voices louder, our aim is to consider how we can co-construct humane, democratic classrooms within this context.

Undeniably, the global challenges we face transcend the artificial boundaries societies have made, such as city, state, or national borders. They have no single cause and no simple solution. This idea is not new, of course. Fifty years ago, environmentalist Dr. Barry Commoner sounded an early alarm about environmental crises: from radioactive fallout and air pollution to pesticides and water contamination. He argued that these issues occur not in isolation but rather are connected to everything else, including war, poverty, racism, and social inequalities (Commoner, 1971). Today, globalization has furthered interconnectedness on our planet, often with catastrophic impacts: climate change, food and water insecurity, extreme poverty, and now a global pandemic. Warming oceans, shrinking ice sheets, sea level rise, and ocean acidification are leading to a whole host of issues such as flooding, extreme weather and biodiversity loss (National Aeronautics and Space Administration [NASA], 2021). By 2050, the world's population is expected to reach nearly 10 billion people, limiting the Earth's capacity to produce adequate food, space, and other resources (UN Environment Programme, 2020). Such far-reaching issues cannot be solved by a single individual, or even a single country. Global challenges can only be improved together, through communication, cooperation, and commitment. They also call for an innovative approach to education that prepares students as knowledgeable, compassionate, and engaged global citizens (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2014).

This book presents a vision for transformative education, one that allows us to collectively rise from the ashes of trauma and loss caused by recent events. It unpacks what it means to educate in the context of our complex world. While recognizing that globalization has in many cases increased levels of inequality, promoted consumption, and made dominant voices louder, our aim is to consider how we can co-construct humane, democratic classrooms within this context. Learning that encourages children to seek solutions to problems they face. Learning that fosters students' emotional connection, personal well-being, and reverence for the natural world. Learning that demands students participate

actively in their communities. Such learning *matters*. It is authentic, purposeful, relevant, and engaging. It builds and improves neighborhoods. It prepares learners to navigate an unknown future. Through such teaching, we communicate a key message: to learn is to hope. Learning is a light, which can guide us through times of darkness.

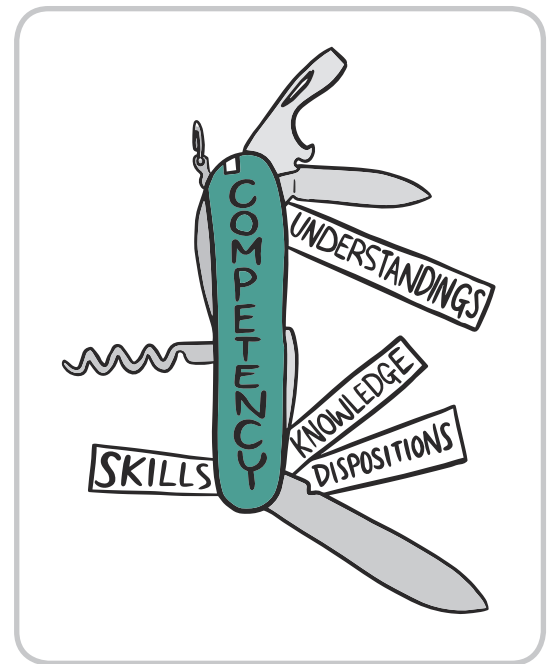
Global Competence: Transforming Learning to Action

Despite the challenges communities face today, education can empower children and youth to find practical, scalable solutions that balance human needs with the needs of the environment. When we ask students to meaningfully apply their learning to complex issues, **global competence** emerges. The mobilization of learning to meet complex demands (Organisation for Economic Co-operation and Development [OECD], 2018b), **competency** bridges the gap between student learning and student action. We can think of a competency like a Swiss Army knife. Faced with a particular novel or complex context, we can draw from our knowledge, skills, understandings, and dispositions like a set of tools that can be combined for a purpose. Cooking dinner at the campsite? Get out your can opener, knife, and corkscrew. Fixing the tent? Use your screwdriver, pliers, and wood saw. And as we know from camping, they're very handy to have in your back pocket.

Global competence is the Swiss Army knife for facing situations in our volatile, uncertain, complex, and ambiguous world. By global, we mean *encompassing* and *inclusive*, not just applicable to issues relating to the whole world. Learners display their global competence at various scales, especially the local. Importantly, it emerges when students wrestle with novel or complex situations.

For example, imagine students are studying soil health and the specific issue of soil erosion. When teachers design learning experiences with global competence in mind, all learning domains are addressed. Students develop *knowledge* of soil and facts about soil erosion. They strengthen their information literacy *skills* as they locate relevant information and create infographics on soil health. Students develop *understandings* about how living organisms interact and the role of soil in the global food system. They display *dispositions*, such as questioning and thinking creatively. As students are driven to act on the issue of soil maintenance on campus, they grapple with complexity and demonstrate their global competence.

Importantly, unlike these four learning domains, global competence is not an outcome to be displayed and then mastered; rather, it is a lifelong endeavor that accompanies a global and intercultural outlook (Boix Mansilla & Jackson, 2011). Figure 0.1 shows the interaction between the four learning domains, their application to novel or complex situations as global competence, and the resulting action that occurs. Relationships between the four learning domains are explored further in Chapter 1.



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Figure 0.1

Transforming Learning to Action



Pedagogy for People, Planet, and Prosperity

In this book, we propose a **Pedagogy for People, Planet, and Prosperity** to nurture students' abilities to think critically with compassion, to explore alternative futures, and to take action to ensure their own, others' and the planet's well-being. Simply stated: to make decisions that support a just, peaceful, and sustainable future. When we hear the word *sustainability*, particular stereotypical images may spring to mind: recycling bins, solar panels, organic fruits and vegetables. Yet our understanding of **teaching for a sustainable future** has transformed. Hedefalk, Almqvist, and Östman (2015) describe this shift saying:

[It] has evolved from teaching children facts about the environment and sustainability issues to educating children to act for change. This new approach reveals a more competent child who can think for him- or herself and make well-considered decisions. The decisions are made by investigating and participating in critical discussions about alternative ways of acting for change. (Extract from Abstract)

When engaged as critical thinkers and conscientious citizens, students engage in **sustainable development** to “[meet] the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 15). Economic prosperity is necessary for communities to thrive. However, our students must understand that growth must balance planetary impacts, the protection of human rights, and individual and collective well-being. It is only by bringing together these three pillars—people, planet and prosperity—that we can create a sustainable future that benefits all.













Achieving such a vision requires *a different kind of learning*. If global competence is the versatile application of learning to navigate complex issues, students need to be presented with rich learning experiences that require them to problem-solve. They need to be nudged into that territory, where they feel challenged to use their learning with adaptability. Such learning nurtures students' holistic well-being, peaceful relationships with others, and appreciation for nature. In other words, simply understanding an issue is

not enough. We want learners to feel genuine concern and love for the world around them. We want learners to view themselves as capable and competent in affecting positive, long-lasting change. We want them to *live their learning* with intention and purpose. Such students are hopeful, instead of despondent. They understand that individual actions do indeed make a difference. We call these students **Worldwise Learners**.

For students to foster self, community, and ecosystem well-being, Worldwise Learners require the ability to connect, understand deeply, *and* take purposeful action on issues. To do so, the heart, the head, and the hand must work in tandem. When we do not integrate the heart, the head, and the hand in our instruction, learning remains passive or becomes disjointed. For instance, let's say students learn about energy use in the classroom, yet do not apply their understanding to their interactions in the world. This creates passive citizens who are overwhelmed by the immensity of problems or believe they are unable to affect change: "The problem is so big, and I'm just one individual. What significant change could I possibly make?" Likewise, when students act without deep understanding, they produce surface-level actions that do not address root causes or, even worse, contribute to the problem. Figure 0.2 shows what occurs when we do not bring together the heart, head, and hand in our curriculum design.

Figure 0.2

Integrating the Heart, Head, and Hand

Heart	Head	Hand	Outcome
			Students lack a moral compass to guide their actions, making decisions using reasoning that does not consider connection to humans or nature.
			Students oversimplify issues and engage in surface-level actions that address symptoms instead of root causes, potentially making issues worse.
			Students lack a sense of personal responsibility and the will to act. They do not view themselves as agents of change and remain passive recipients of learning.
			Students use their identities, prior knowledge, and deep understanding to engage critically with problems in communities at various scales. They view themselves as able to produce positive change.

Book Features and Structure

The aim of this book is to support K–8 educators as they nurture Worldwise Learners, students who make connections, deeply understand, and purposefully act when learning about global challenges. To do so, we provide a framework to enact meaningful interdisciplinary learning that uses issues as curricular organizers. We couple theory and practice to build educators' understanding of why local, global, and intercultural issues represent significant classroom learning, as well as pedagogy to make them come alive.

Throughout the chapters of this book, we provide:

- **Practical classroom strategies:** Classroom strategies show what Worldwise Learning looks like at the lesson level. These strategies, generally placed at the end of each chapter, help educators easily implement the ideas in each chapter and provide tips for scaffolding students' thinking.
- **Images of student work and learning activities:** Images often accompany classroom strategies or Spotlights to help educators visualize meaningful Worldwise Learning moments.
- **Spotlights:** Spotlights tell stories about learning from diverse student, teacher, and organization perspectives.
- **Sample lessons and units:** Sample lessons and units help educators understand how the planning process links to and can support teaching and learning about global challenges. Many of these you'll find on our companion website.
- **A companion website:** The learning doesn't stop with this book. In addition to adding resources over time, our companion website allows teachers to discuss topics and share ideas with each other. Come on over to our website at <http://www.teachworldwise.com> or engage in dialogue on Twitter using #teachworldwise.

This book is organized into four parts. Part I (Chapters 1, 2, and 3) describes the conditions required for Worldwise Learning to flourish. Chapter 1 explores the challenges and opportunities of our global interconnectedness. It outlines the Worldwise Learning Framework and accompanying tenets for a Pedagogy for People, Planet, and Prosperity, which frame the rest of the book. Chapter 2 outlines what we mean by taking an integrated approach in the classroom, exploring how we can create inclusive, democratic classrooms. The chapter considers how we can instill democratic values and design authentic opportunities for participation, such as through co-planning with our learners. Chapter 3 looks at the interdisciplinary nature of global challenges. It differentiates between disciplinary, multidisciplinary, and interdisciplinary learning as well as provides a continuum to explore ways to integrate opportunities for interdisciplinary thinking into the curriculum. Chapter 3 considers how we can plan for meaningful interdisciplinary learning using issues as organizers.

Part II (Chapters 4 and 5) unpacks the Connect phase of Worldwise Learning into chapters about perspective-taking and storytelling. Chapter 4 discusses the importance of self-awareness and perspective-taking to make sense of a

multicultural, globally connected world. Chapter 5 focuses on the power of story as a way to build empathy, develop intercultural understanding, and establish a sense of place. Each of these chapters is made up of two sections: an introduction providing the theoretical background for the focus of the chapter and a practical section sharing a number of strategies that can be easily implemented in the classroom.

Part III (Chapters 6 and 7) considers the Understand phase of Worldwise Learning. Chapter 6 explores how “systems thinking” can allow students to see the interconnected nature of people, places, and systems in local, global, or intercultural issues. Chapter 7 explores the role of conceptual thinking to help students construct “big ideas” that transfer across time, place, and situation. Again, each of these chapters is made up of an introduction and a practical strategy-focused section for bringing these types of thinking to life in the classroom.

Part IV (Chapters 8 and 9) focuses on the Act phase of Worldwise Learning and concludes the book. Chapter 8 looks at how we can develop global citizens who identify as changemakers, read information critically, and think in entrepreneurial ways to develop solutions and take purposeful action. Chapter 9 brings these ideas to the life of educators: It is our call to action. How can we, as teachers, create classrooms that tap students’ innate desire and capability to shape a better world?

At its core, this book provides a vision for transformative education. Using the Worldwise Learning Cycle, you will be able to support students in applying critical thinking at different scales: personal, local, national, regional, and global. As our students become Worldwise Learners, they will be able to bring together ideas with action and emotion with reason. They will be able to unravel the everyday complexity they encounter to identify leverage points for positive change. Throughout, you play a critical role in nurturing the heart, head, and hand of each student. It is our hope that this book contributes to a more just, prosperous, and sustainable world through education.

PAUSE AND REFLECT

As you begin to explore these chapters, we invite you to reflect on these questions:

- How have you experienced our VUCA (volatility, uncertainty, complexity, and ambiguity) world recently as an educator? How have your students experienced it?
- What might learning that develops global competence look like in your classroom?
- What does teaching for a sustainable future mean to you?
- Imagine one of your students as a Worldwise Learner, who lives their learning with intention and purpose. What is this learner thinking, feeling, saying, and doing?