

Introduction

“Education is an act of love, and thus an act of courage.”
—Paulo Freire (2013, p. 34)

Teaching well is an act of love for our learners. It is also an act of love and respect for ourselves; for knowledge that has been developed over time in the disciplines; for reading, composing, and problem solving; and for all significant learning that makes a difference to the quality of our personal and shared human experiences. It is an act of love for the world and for the future and an act of faith in our capacity to better ourselves and our world. Teaching well is often a kind of loving rebellion because it requires going beyond the status quo, of caring for what is yet uncared for, of working for justice, for new ways of knowing and being, for what is in the act of becoming and yet to be (Wilhelm & Novak, 2011). Teaching well is all about *transformation*.

Teaching well is an act of social justice. In America today, demographics often determine destiny. Parents’ socioeconomic status and educational attainment are the primary predictors of a learner’s later success. But it does not have to be this way. When we *cognitively apprentice* learners into the joy and capacity of greater expertise, social barriers to success can be overcome. Research on human potential stretching, from Vygotsky (1978) in the 1920s to Benjamin Bloom (1976) to the recent work of Anders Ericsson and Robert Pool (2016), demonstrates the liberating finding that *everyone* is capable of learning the next available concept or process if they get the proper assistance in a meaningful context of use—in other words, if they are apprenticed.

Teaching—as an act of love and for social justice—is the most noble calling and transformative pursuit that exists in the world!

Teaching for deep understanding and growth requires passion, purpose, and dedication, but more than that, teaching well requires expert practice in the use of scaffolds, structures, and strategies to activate and enliven the passion and purpose, to operationalize the dedication, and to make the learning happen, now and into the future. These scaffolds, structures, and strategies move from providing models and guided support to promoting self-regulation and self-direction and move the learners into independence, into the full flowering of their human potential. Teaching well is about inducting learners into meaning-making power; it is about sharing the persuasive power of expertise *with* learners, not having authoritative power *over* learners.

THE TRANSFORMATIVE POWER OF GUIDED INQUIRY

This book is about using a specific form of guided inquiry (known as **inquiry as cognitive apprenticeship**, or **ICA**) to teach in ways that develop passion and purpose and that lead to independent and increasing expertise in learners. When we use guided

inquiry, we teach for possibility, deepen learning, and help our learners actualize their potential, thus transforming the lives of individuals and leading to a better tomorrow.

The EMPOWER model we introduce in this book is a map for instructional planning of guided inquiry at both the unit and lesson instructional levels. EMPOWER names the *must-make moves* of teaching through guided inquiry and apprenticeship:

E	Envision a lesson's or unit's bottom-line goals for student learning
M	Map out the steps of the learning journey for moving toward a new destination
P	Prime learners by activating their prior knowledge and interests
O	Orient learners to the goals, purposes, and payoffs of the learning
W	Walk through the skills and processes that move learners to increasing expertise by modeling, mentoring, and monitoring learner performance, gradually releasing responsibility to them through the process of apprenticeship
E	Explore new territory as learners personalize and transfer what has been learned
R	Reflect throughout the process to name what was learned; how it was learned; and ways to continue thinking about, growing, applying, and transferring what has been learned

EMPOWER is a model for systematic instructional planning that uses backward design and captures current research across the learning sciences into motivation, engagement, optimal experience, cognition, development of expertise, understanding and transfer, and more. This kind of planning is the central domain of a teacher's professional knowledge. In the chapters that follow, we will first share the research and general principles behind EMPOWER and then proceed to the specific must-make moves necessary to enact the transformational teaching of guided inquiry as we plan units, plan lessons, and then implement and hone them with our learners. The strategies in this book are the concrete practices that put the must-make moves of the EMPOWER model into our teaching practice.

When we learn how to plan and then teach with EMPOWER, we focus on learners and the highest goals we have for them. We use and adapt the must-make moves flexibly and in service of learners' deepened engagement. Teaching begins and ends with attentiveness and responsiveness to learners and to their learning: teaching them from where they are and moving them toward where they could be. The teaching itself requires knowledge of planning and the use of strategies that scaffold and support learners to increase expertise as they practice, perform, and transfer their learning.

If we have a planning process and a repertoire of strategies to model reading, composing, and problem solving in new ways *for* learners, then we can ask them to use these processes *with* us, then *with* each other, and, finally, *by* themselves. This is the process of cognitive apprenticeship, also known as the **gradual release of responsibility**. Our approach works toward *total engagement and participation* on the part of each learner and in ways that develop conceptual expertise that can be used and honed throughout a lifetime.

Our colleague Pedro Noguera (2018) has stressed that as a culture we typically ask the wrong question, which is, *How can we raise achievement?* What we should ask is this: *How can we engage, challenge, stimulate, and deepen the learning of our learners, those specific human beings who enter into our learning environments?*

Noguera’s question is one we try to answer in this book. To undertake it, courage will be more important than caution. Improvement requires building on what we already know and do to move into new ways of knowing and doing. This book is about transforming how we teach so we can transform why, and how, and what our learners learn. The ultimate goal is for learners to be transformed through **deep understanding** and the achievement of **conscious competence**—the capacity to monitor, justify, reflect on, and **transfer** what they’ve learned, and to extend and adapt their knowledge to solve future problems. This kind of 3-D teaching and learning requires knowing, doing, and thinking. But how do you *do* it? What is the *process* for getting the results you’re seeking in your classroom?

Before we move further, let’s be clear: *Guided inquiry is neither an extra nor an option.* It is the work of truly teaching. It is the necessary process for achieving motivation, engagement, deep learning, practical and usable disciplinary expertise, and the capacity to meet all next-generation standards and assessments. It is a way to make your classroom into a caring community of practice, where everyone works together on common projects that mirror real-world expertise. It is what is necessary to move away from the shallowness of information-driven teaching with its recitation and retrieval and move toward deeper learning, critical thinking, learner ownership in the process, and transfer of knowledge and skills to the world beyond the classroom. We are devoted to guided inquiry and our EMPOWER model for planning and teaching with it, because this process

1. promotes, increases, and leverages the motivation, engagement, and even joy of learners (Smith & Wilhelm, 2002, 2006);
2. prepares learners for the intellectual and problem-solving demands of future education, work, citizenry, and personal affairs (Newmann, Carmichael, & King, 2016);
3. significantly boosts achievement, understanding, and transfer of learning, including achievement on standardized tests (McTighe, Seif, & Wiggins, 2004; Newmann & Associates, 1996; Newmann & Wehlage, 1995; Smith & Wilhelm, 2006; Weglinsky, 2004);
4. strengthens a sense of belonging and community on many levels: the community of the classroom; the connection between learners, between learners and teacher, and from the classroom to real-world communities of practice; and the collaborative culture and powerful professional community among teachers (Wilhelm, 2012b); and
5. is consistent with and extends all other proven methods of guided inquiry, as shown in Figure I.1.

■ FIGURE I.1: CHART COMPARING EMPOWER TO DIFFERENT GUIDED INQUIRY MODELS

EMPOWER	SYSTEMS CONNECT	PROJECT-BASED LEARNING (PBL)	INTEGRATED INQUIRY (INTERNATIONAL BACCALAUREATE)	UNDERSTANDING BY DESIGN (UBD)	VESTED	SHELTERED INSTRUCTION OBSERVATION PROTOCOL (SIOP)	6 E'S	TEACHING FOR UNDERSTANDING
Envision	Topic selection and learning objectives	Key knowledge	Transdisciplinary theme	Stage 1: What is worthy and requiring of understanding?		Lesson prep	Engage	Use topics that engage and connect to other subjects
Map	Essential/driving questions;		Tuning in					
Prime	context; define issues and measurable changes	Challenging problem or question and student voice		Stage 3: What learning, experiences, and teaching promote understanding, interest, and excellence?	View	Building background		Create coherent goals
Orient								
Walk Through	Plan and conduct investigations; analyze and interpret data;	Sustained inquiry, authenticity	Finding out; sorting out; going further; making conclusions		Experience	Comp. input strategies	Explore	Create engaging learning experiences
Extend and Explore	construct explanations; develop claims, informed action	Public product	Going further; taking action	Stage 2: What is the evidence for understanding?	Speak	Interaction	Explain	
Reflect		Reflect			Transform	Practice/application	Elaborate	Develop formative and summative assessments that deepen understanding
					Extend	Lesson delivery	Extend	
					Deliver	Review and assessment		
					Perform		Evaluate	

MOVING FORWARD: THE JOURNEY OF EMPOWERMENT

Be aware that this process is not DFY (done for you) but, instead, DIY (you will learn how to do it for yourself and to adapt and extend the model for your purposes with your learners throughout the evolving challenges of your career). EMPOWER is not a script; it is a flexible framework and mental model of expert teaching. Your vision, energy, and commitment to improving your teaching and helping your learners play a major role in this process. If you're bringing the *passion*, we're bringing the *process* and *teaching strategies* to implement expert planning and teaching—a process that you will soon make your own. You will be able to adapt our high-leverage apprenticeship strategies, extend them, and understand the principles behind each must-make move so you can come up with lessons and activities of your own.

As Jeff's dad used to say, "If you always do what you've always done, then you'll always get what you always got." Our approach rejects the traditional and typical (so embedded in educational practice) and champions more progressive ways of teaching to achieve deep engagement and usable understanding, to help ourselves and our learners become our best and most powerful selves.

Teaching well is an act of love. And with love—and a teacher's mindful instruction and support—all potential can be brought into being; all things can become possible.

An Introductory Activity: Getting in the Game of Guided Inquiry

What teacher has not struggled with planning curriculum that works for learners? Or felt perplexed by how to help learners develop the skills they need while keeping the learning joyful? Maybe you know the feeling of giving up on a new unit of study (or even a lesson) because the task of creating it without even knowing if it would work was too daunting. Perhaps, like your fellow teachers nationwide, you face a new set of standards requiring that learners think at a deeper level than has been expected in the past. Or maybe you've just grown tired of searching online for the "perfect" lesson or unit for your learners only to be disappointed by the results. If any of this sounds familiar, this book is for you. We intend it as a practical guide to creating curriculum and facilitating instruction—units and lessons—to achieve four goals:

1. Unlock the motivation and engagement in classrooms of diverse learners
2. Maximize your learners' chances of mastering desired learning outcomes
3. Position and help learners to think, understand, and act more like disciplinary experts and democratic citizens
4. Access your fullest potential as an instructional leader

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We all want to make a positive impact in the lives of our learners and in the classrooms of our colleagues. In order to do that, we need a consistent, reliable way to design and deliver instruction that works. But that leads to another question: *What works?* Consider the four teaching vignettes that follow. Because we want the focus to remain on the pedagogy—the teaching moves, not the subject area—we’ve designed scenarios around a subject we are fairly confident few of our readers teach: rock climbing. After reading the scenarios, try to determine which one will most likely lead to the highest degree of climbing independence and expertise and be able to explain why you think so.

Vignette 1: The unit begins with the teacher explaining why people climb mountains and how the class will climb one. Every day, the teacher models a new skill on a section of terrain for learners, briefly guides the practice of the new skill, and then facilitates the learners’ independent practice. “I do, we do, you do” is practiced with every new skill each day, until the class collectively reaches the top of the mountain, with the teacher providing copious feedback along the way. At the end of the unit, learners put all the skills together and climb a new mountain independently. After the climb is complete, the teacher creates a gallery of photos from individual learners’ climbs and writes *a glow and a grow*—a point of praise and a suggestion for improvement—next to each photo.

Vignette 2: “How do *you* think we should climb this mountain?” Not wanting to stifle learners’ creativity, the teacher invites learners to discover their own strategies for climbing and presents them with various tools they might need. Documenting their own trial and error, learners create a notebook full of personal climbing strategies. Not only do they create their own styles of climbing, but they all climb different mountains tailored to their interests. The more naturally gifted climbers help and give feedback to the less gifted climbers during group work. At the end, the learners all climb different mountains independently using their own unique styles and give a presentation to the community based on their climb.

Vignette 3: The teacher opens the unit by asking learners what strategies they already know for climbing and then assesses their use of these strategies on a climbing wall. The teacher identifies a mountain in the distance as the destination of the unit and poses a guiding question: *Why and how do experts climb mountains?* After exploring a few stories and strategies of expert climbers, the learners create a basic checklist of moves for their first climb, a molehill. With a “quick win” under their belts, the learners scale two progressively higher mountains with the teacher’s coaching, using and extending their *expert-move checklist* after each climb. They then tackle two even higher mountains in groups, relying almost entirely on their peers’ feedback and support. By now, they have outgrown the checklists; they are using more developed scorecards and keeping process journals. The learners’ final task is twofold: (1) climb a new mountain independently and (2) teach a group of local kids who have never climbed before how to tackle their first mountain. Afterward, there is a debrief where learners share their experiences and brainstorm a plan to climb another mountain or a way to transfer their skills to a new pursuit.

Vignette 4: A new unit called “Mountains and Molehills” begins. The teacher assigns worksheets about the process of climbing, multiple-choice questions about different kinds of mountains, and matching tasks to relate climbing tools to their purpose. Sometime toward the end of the year, learners climb a mountain on the same day as all the other kids in their state. Afterward, learners watch several movies about climbing.

ANALYSIS OF THE VIGNETTES

Vignette 4: Educational malpractice

The learning activities in the worksheet-driven classroom do not correspond to how real-world climbing experts train, plan, or climb, so this approach fails to translate into gains in rock-climbing expertise. Nobody argues for teaching this way, but it still tends to dominate American education (see Chapter 2). Learners in classrooms like these feel disengaged and grossly unprepared for their state test on “climbing” as well as for real-world applications.

Vignette 1: Skill-a-day learning

Although this vignette presents many elements that *appear* sound, upon closer inspection, it's clear that the teacher misunderstands the gradual release of responsibility—the process of transferring ownership of a task from the expert to the learner over time—as something that happens over a day instead of over weeks, months, or even years. This teacher values the consistency and structure of having an “I do, we do, you do” element in every lesson, but the unintended consequence of this is learners becoming dependent on *daily teacher assistance*. There is always a “we do” and never a period for learners to consolidate and extend their previous learning. The teacher's removal of all scaffolding for the final task can be abrupt and jarring for learners as well. Here's one final point: By breaking down the climbing into a series of subskills and only focusing on one at a time, learners never get the experience of linking moves to climb a whole mountain, making success on the final task highly unlikely for many of them.

Vignette 2: Discovery-based—or “choose your own adventure”—learning

Allowing learners to wrestle with open-ended challenges has its place (and generally this place is *after* learners have been supported to learn something new); however, reliance on this strategy is unsound pedagogy because it abruptly releases responsibility to unprepared learners. In this totally unscaffolded, discovery-based environment, the climbers climb and the nonclimbers roll down the mountain, often getting hurt in the process. Learners almost certainly will not develop real expertise because real expertise is passed down through communities of practitioners who study their predecessors, compare notes, and make connections to new challenges, not by simply holing oneself off and tinkering. This vignette does present a rosy, if not romantic, vision of learning, but ultimately, it's a misguided and unrealistic one. Furthermore, as the description of the final task suggests, learners in classrooms like these end up “all over the map” (in this case, both literally and figuratively) as a result of uneven skill development and unclear direction. Learners who never learn the practices of experts cannot be expected to independently navigate an open-ended challenge.

ANOTHER WAY?

Insightful readers may notice somewhat exaggerated parallels (though not by much) between the vignettes provided here and the most common instructional approaches employed by schools nationwide. The pedagogical issues just enumerated abound in even the most popular publishers' curricula. So, if Vignette 1 is too scaffolded and Vignette 2 is too unscaffolded, what is the alternative? What would such a pedagogy present? Ideally, such an approach would balance the need for explicit instruction with the need for learner autonomy, infuse rigor with meaning, and serve learners now and in the future.

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VIGNETTE 3: EMPOWERMENT PEDAGOGY

In this vignette, the teacher *primes* learners for the new challenge by tapping into their prior knowledge and skill. She then *orients* them toward a new destination and asks a compelling framing question. From there, it's classic apprenticeship: She *walks through* some expert approaches to the task, inviting learners into a community of experts, and helps learners get a quick win. Over time, the teacher *extends expertise* by challenging learners to take on progressively harder climbs with less assistance from her and more assistance from peers. Finally, the teacher calls on learners to *explore* new territory, climbing the mountain independently and then teaching someone else. Both the teaching task and future climbs are made possible by learners having developed an evolved mental model of climbing expertise from ongoing opportunities to *reflect* on their process through checklists, scorecards, and process journals.

These five elements (whose initial letters spell P-O-W-E-R), in addition to two behind-the-scenes teacher moves, *envision* and *map* (giving us E-M), “spell out” the pedagogy of EMPOWERment: the subject of this book.

While other pedagogies impose artificial form and vocabulary onto learning, EMPOWER does the opposite: It distills the elements of real-world teaching and learning and codifies them into a replicable process. Far from formulaic, EMPOWER merely *describes* what happens when learners and teachers engage together in highly relevant, highly authentic teaching and learning. EMPOWER leverages the power of two schools of thought:

1. Expert inquiry—the recursive process of developing and performing knowledge the way real-world experts do
2. Apprenticeship—the art of gradually releasing responsibility for task performance to learners by building their capabilities until they can “own” the whole endeavor themselves

Instead of treating relevance and authenticity as an afterthought, EMPOWER uses them as a starting place to explain real-world learning better than any existing paradigms. Learners achieve 3-D learning as they are helped to know, do, and think: reflecting on, justifying, and managing their learning.

A MAP OF THIS BOOK

These vignettes attempt to answer timeless questions about teaching: *What kind of teaching can actually achieve transformations in understanding, performance, and ways of being? Under what conditions are people guided to inquire and develop expertise that can be applied in the real world? In light of that, what defines excellent instructional design? What moves must educators make to guarantee that learners develop expertise, insight, and independence?*

Like the learners in our vignettes, you too will begin a journey—surveying your methods and engaging in reflective practice. If you put in the work, your destination is

assured: You will reach new heights as an educator. You may find, too, that you'll take on a new role as an instructional leader.

We frame each chapter with a guiding question and include illustrative examples, stories from the field, and actionable insights. Chapters 1 and 2 provide a “map of the territory” and necessary background for the EMPOWER framework. Chapter 1 explores how EMPOWER works as a model of guided inquiry and apprenticeship to help people achieve the capacity of experts. Chapter 2 looks at how to make the shift from informational to transformational teaching. We'll describe the differences so you can monitor your own shift, and we'll explain why even very accomplished and progressive teachers can often revert to the “salience of the traditional” (Zeichner & Tabachnick, 1981).

Then, we get practical. Chapters 3 through 5 explore how to work offstage to plan your units and individual lessons through the techniques of *envisioning* and *mapping* (the E-M of EMPOWER). Chapter 6 is about how to prime the classroom culture and community necessary for guided inquiry. In Chapters 7 and 8, we examine how to prepare learners for success with specific conceptual and procedural learning targets through *priming* and *orienting* (the P-O of EMPOWER). Chapters 9 through 13 focus on how to use various scaffolds and supports to actually apprentice, or *walk through*, new complex learning with learners in order to develop and then *explore* and *extend* independent expertise (the W-E of EMPOWER). Chapters 14 and 15 look at techniques and assessments to help learners *reflect* (the R of EMPOWER) on, name, transfer, apply, and move consciously into the future with their newfound expertise.

We've included a throughline unit in each of the chapters so that you can see how each must-make move of guided inquiry can be used as a lesson that is part of an actual unit. The first strategy and the accompanying lesson canvas in each chapter will come directly from this unit. The strategies that follow in each chapter will demonstrate how the featured must-make move can work in other ways in the throughline unit or in units from different subjects across the curriculum.

There are two websites to support the work started in this book. The Online Companion site at resources.corwin.com/empower-elementary contains pieces that match directly with strategies you'll find in the book. This website is hosted by Corwin, our publisher.

To further support you, we have created a website that we maintain on our own, empoweryourteaching.com. Here you will find ongoing updates, an online glossary of terms to support PLC work, and resources that complement and extend those from this book.