

INTRODUCTION

This book comes at a time when teachers and school leaders realize that solving the challenges facing modern schools is less about making good decisions and more about facilitating collective, coordinated action on the part of teachers, students, parents, and community partners. The challenges schools face are multifaceted, have numerous potential solutions, and with almost no exceptions, impact people. Many might call them “wicked” problems.

It’s fashionable these days to talk about problems as being wicked, but what does that mean? The term comes from Horst Rittel and Melvin Webber, professors at the University of California, Berkeley, who in the 1970s suggested that people in professions where social planning and governance is the chief endeavor (teachers and leaders in schools would be in this group) have been “misled somewhere along the line into assuming they could be applied scientists—that they could solve problems in the ways scientists can solve their sorts of problems.”¹ The issue, as Rittel and Webber tell it, is that the problems scientists and engineers focus on tend to be “tame” or “benign.” In other words, it’s very clear when a problem they are working on has been solved. On the other hand, “wicked problems,” ones that are tricky, thorny, or problematic, are not always clearly formulated, nor does one always know when they are

solved (or if they're solved at all).² Name just about any school program or initiative that is working suboptimally and you will probably find that the path to improving it is stalled thanks to its wickedness. Do any of the following sound like tame problems to you: optimizing the day pattern for all students, getting all teachers on board with technology, devising a graduate profile for all students, crafting a schoolwide culture of personalized learning, and ensuring every child is fully included in all programs and services. These challenges are just the *normal* problems school teams try to solve, yet each is classically *wicked*.

The challenges teachers and school leaders face are often resistant to simple, straightforward, or top-down solutions. Design thinking offers a process to address those problems by engaging a wide range of stakeholders in the pursuit of solutions with concrete outcomes that can be measured, such as increasing student engagement, improving school liking, increasing graduation rates, and increasing family engagement. Design thinking has promise for creating improvements in schools that are innovative, novel, and pleasing, and that in the process transform the culture by increasing empathy, collaboration, and optimism. This book is meant to outline that process in a way that is accessible for school leaders.

WHAT IS DESIGN THINKING?

Design thinking is a critical tool for simplifying and humanizing wicked problems.³ To best define it, we should pull it apart and discuss first the word, *design*. What do you think of when you see or hear the word *design*? Perhaps you think of professions, such as architectural design, interior design, fashion design, or graphic design. Perhaps you think of creativity, beauty, or aesthetics. Some people think of verbs like *plan*, *strategize*, or *scheme*. For our purposes, you can consider design as a process that “intends to offer a concrete solution to a complex problem that is socially ambiguous and neither easy nor certain to comprehend.”⁴

It is also a term you may take on as a moniker. There is nothing wrong with calling yourself a designer. One of my goals in this book is to have you act in more *designerly* ways. Consider the fact that design touches all aspects of our world, and the role of designers is to impact the human experience.⁵ This being the case, as an educator you are likely

already a designer; you just haven't been using the title. There is little in your world that has not been designed by someone, from the furniture around you to the curriculum your students follow in schools.

From Design to Design Thinking

When people in education talk about design thinking, it's often conflated with notions of classical design. This happens in many industries.⁶ Historically, some form of design has been a part of the culture of organizations (chiefly businesses) since the 1950s, with traditional design permeating the likes of big corporations such as General Motors and IBM, where it influenced corporate identity and product styling in the 1950s and 1960s.⁷ Modern design firms, such as Frog and IDEO, emerged between 1970 and 1990, articulating a transition from traditional design to designing systems and services.⁸ Whereas earlier notions of using design in organizations were about aesthetics, the new focus was on applying the principles of design to the way people lived and worked.⁹ And while the roots of design thinking can be traced to work in fields such as interaction design, participatory design, and user-centered design—bolstered by Nobel Prize recipient Herbert Simon's declaration that design is not just the purview of engineers—it's in the 2000s when design thinking comes into its own as a way to harness the creative problem-solving skills of designers to tackle nonengineering problems.¹⁰ The 2005 launch of the Hasso Plattner Institute of Design at Stanford, better known as the dSchool, is an example of this.¹¹ In the last five years, design thinking has become a mainstream approach, even a whole-business strategy, for companies like SAP, Procter & Gamble, and Capital One.¹²

Quality of Experience

A common denominator among organizations leveraging design thinking is the notion of *quality of experience*. The example I love to tell over and over is that of Zappos. When I have the opportunity to share this example in a presentation, I'll ask, "How many in the room have heard of Zappos.com?" If I'm in the States, many enthusiastic hands go up. I then ask, "What kind of store is Zappos?" From those whose hands went up a chorus comes back: "Shoes!" It's reasonable they say so. Zappos, at

its inception, sold chiefly shoes (and it still does, in addition to other apparel). And then I ask, “What’s so appealing about Zappos?” Someone invariably explains that Zappos ships everything to you for free, return shipping is also free, and you can take up to 365 days to return items. Even though the things people love about Zappos don’t have to do with shoes (notice people don’t respond with “The shoes are great!”), to most people, Zappos.com is still a shoe store. But ask Zappos what kind of store it is and you’ll get a different answer. As Tony Hsieh, Zappos’ CEO, puts it, it is a service company that happens to sell shoes. That’s interesting, isn’t it? The CEO of many people’s favorite place to buy shoes doesn’t think it’s a shoe store. And to sell more shoes, Tony Hsieh doesn’t focus on shoes.

I had a personal experience that drove home his point. I once bought a pair of snow boots from Zappos and broke a strap on one of them within one minute of taking them out of the box (it was my fault). I sheepishly called Zappos’ customer service line to admit my brutishness, expecting to have to pay for a replacement pair. Not only did Zappos offer to overnight a new pair of replacement boots for free, and let me ship the owner-damaged goods back for free, but for the kindness of vandalizing my own new boots they would make me a member of their VIP club with free overnight shipping for life. “Would that be all right, Mr. Nash?” the customer rep asked (I accepted).

Now, let’s take Zappos’ philosophy and apply it to schools. Ask just about anyone what schools do and they’ll tell you they exist to educate kids. But what if we thought of schools in another light? What if we thought of schools as service organizations that just happened to educate kids? Schooling is a service provided to the public that is experienced by students. That experience should be amazing.

Shifting Expectations

There is an increasing desire on the part of the public to engage in transactions that are not only efficient but also a good experience. Take, for instance, the simple ubiquitous commodity, the cup of coffee. Coffee sold at one’s local Quik Mart gas station is delivered on the transactional, Weberian premise of efficiency—*get in, get out*. When you buy a cup of coffee at the gas station you are buying, well, a cup of coffee. Conversely,

the same product sold at, say, Starbucks is predicated on the premise of a transformational experience: *come in, stay in*. When you buy a cup of coffee at Starbucks you are buying an experience.

Now, we can debate who has better coffee, Quik Mart or Starbucks; neither enterprise appears to be going out of business anytime soon. What is not up for much debate is how, thanks in part to what Starbucks has done for coffee, other segments of society are catching on to how experience matters.

It's no accident, for instance, that transformations in the humanizing of the health care industry have taken place in the wake of increased attention to how people experience health care. Consider the work of Doug Dietz, principal designer at GE Healthcare, an \$18 billion division of one the largest corporations in the world. The MRI machines Doug and his team deploy help countless thousands through the images they create, and, as it turns out, scare the hell out of children who are subjected to them. As many as 80 percent of pediatric patients must be sedated before they are calm enough to remain still for an MRI machine to do its job.¹³

Doug couldn't stand this, so he and a team went into action. Did they redesign the MRI? No. They redesigned the experience.

The team observed the children and gained empathy for what they went through. They talked with families, nurses, and other specialists. And, without making changes to the technology, the team solved the problem. A pediatric patient entering the MRI room today is in the center of an adventure story in a colorful room, covered floor to ceiling with characters that craft a story. Even the machine operators were provided a script so they could take patients through the adventure. "The number of pediatric patients needing to be sedated was reduced dramatically. The hospital and GE also got a benefit from this, because less need for an anesthesiologist meant more patients could get scanned each day and patient satisfaction scores went up 90 percent."¹⁴

Let's take the story at GE Healthcare and bring it around to schools. Before Dietz's epiphany, being placed in an MRI machine, for children, was a scary experience for which they were told, in so many words, "Just suck it up." Before Dietz's work, hospitals would put pediatric patients at further risk, through sedation, to get them to comply with the procedure.

After all, why should it be pleasant? The procedure is being done in the name of helping the patient. Experts are overseeing the process. Experts who know best.

It's hard not to think of schooling when one thinks of the MRI story in this way. Education, like health care, is managed by experts. Students are, for the most part, expected to accept the experience they are provided and, in case they don't care for it, they should also "just suck it up."

ADOPTING A DESIGN ATTITUDE

The management of modern schooling has been the purview of experts. A cult of expertise has reigned over schooling, particularly with the increased professionalization of educational leaders, thanks in part to numerous graduate schools and the growth of educational leadership in the field. The results are a double-edged sword. The expertise and knowledge base are vastly expanded. The cadre of those in decision-making positions, however, is constricted. Not perhaps in terms of people, but in terms of thought. As Hess notes, "[T]hose who have spent their career immersed in the rhythms of any profession come to regard its policies, practices, culture and routines as givens."¹⁵ As a result, there are too many educational leaders who come into their position having been told throughout their training there's only one solution to every problem. Leaders who fall into this camp possess, according to Boland and Collopy, a decision attitude.¹⁶ Such leaders:

- believe there exists a finite set of alternative solutions to problems, mostly provided by outsiders (other schools, vendors, the literature)
- assume it is easy to come up with alternatives to consider, but difficult to choose among them
- assume that the alternative courses of action are ready at hand
- are lulled into the belief that a good set of options is already available, or at least readily obtainable
- are trapped in the role of passive decision maker, making the untenable assumption that the alternatives presented in advance include the best possible alternatives

Why would skilled leaders opt for a decision attitude? One reason is that, as Stanford professor James Adams so aptly noted, “Few people like problems.”¹⁷ It’s because of this, he continues, that the “natural tendency in problem-solving is to pick the first solution that comes to mind and run with it. The disadvantage of this approach is that one may run either off a cliff or into a worse problem than one started with. A better strategy in solving problems is to select the most attractive path from many ideas, or concepts.”¹⁸

Contrast this with leaders who Boland and Collopy describe as having a *design* attitude. These kinds of leaders:

- work with stakeholders to develop custom solutions that are not known at the start
- are concerned with finding the best answer possible, given the skills, time, and resources of the team
- develop alternatives for local conditions; thus decisions about which alternative to select become trivial
- take for granted that the initiative will require the invention of new alternatives
- know that their stakeholders are best suited to say what their needs are, and options are created based on those needs
- are active designers on a team of decision makers who help develop new alternatives that are usually better

One reason schools receive a pass on making K–12 education an amazing experience for students is that school attendance is compulsory. It’s not like public schools have to compete against each other for “customers” by offering the best experience possible. However, it’s easy to see why companies do so—the better the experience, the more likely someone will choose one company over another. (Which company do you think I check first when I need shoes?) Let’s look at some of the research. By 2016, 89 percent of companies surveyed by the research group Gartner believed that customer experience would be their primary basis for competition, up from 36 percent in 2012. And research from the Temkin Group suggests that consumers are six times more likely to

buy a product, twelve times more likely to recommend a company, and, perhaps most telling, five times more likely to forgive a mistake if they are having a positive emotional experience in or around a purchase.¹⁹

What does this mean for teachers and school leaders? If you want student buy-in—which for schools means engagement, interest, perseverance, intrinsic motivation, and so on—you need to be thinking about the design of experience and how it can infuse every student-facing function. Sure, you may not be a banker with a mission to sell financial services or credit cards. And you may not be the purveyor of a cafe, selling coffee or croissants. But you are an educator, and you're in the business of passing along knowledge, via an education, to students. And if that experience for students sucks, your likelihood for success tanks. That's just simple math: if I'm a student, and I hate school, I'm probably not learning to my potential.

DESIGN THINKING AND EFFECTIVE LEADERSHIP

The process outlined in this book is consistent with the theoretical foundations that have emerged in the last decades around organizational success brought about by egalitarian and transformational approaches to leadership. One such approach is distributed leadership. Distributed leadership “is not something ‘done’ by an individual ‘to’ others, or a set of individual actions through which people contribute to a group or organization . . . [it] is a group activity that works through and within relationships, rather than individual action.”²⁰ Design thinking can be seen as an act of distributive leadership. School leaders who read this book and practice its processes will, in essence, adopt a form of distributive leadership, empowering others to help come up with solutions and make decisions.

Design thinking also fits in with theories about effective principals as transformational leaders. Hallinger describes the evolution over time of the principal as leader, moving from the 1960s, when principals were viewed as program managers, to the 1980s, when school leaders entered an era as instructional leaders, to the 1990s and beyond, when the views of stakeholders outside of traditional leadership circles were given greater credence in decision-making in order to achieve greater buy-in and reach

challenging organizational goals.²¹ This latter approach represented “a new role for principals (and teachers) in problem finding and problem solving—a role increasingly referred to as transformational leadership.”²² An assumption underlying this shift is that “those adults who are closest to students—staff members and parents—are in the best position to make wise judgements about changes that are needed in the educational programme of the school.”²³

School leaders who have a predisposition to think transformatively, but lack a methodology to act on their desires, might well consider design thinking as an approach because it is all about leveraging the input and judgment of the user (typically the student) to prioritize key challenges and uncover novel, effective solutions to those challenges. Jesse Bacon, principal at Simons Middle School in Kentucky, has used design thinking as a way to bring students in as codesigners of learning spaces; he sums up the importance of using design thinking this way: “The problem we have as educators is that when we have a problem in front of us we go try to find somebody that’s doing something on that problem and we try to copy it and bring it back. And while that may work sometimes, it’s not very innovative, and it often fails.”²⁴ Design thinking lets leaders make the transition from the experiences students are having now and the experiences students could be having. It’s a way to fully capture what students need, what your community needs, and to create real fixes—not just something that you ask your teachers or your staff to implement as a result of visiting some place.

HOW TO USE THIS BOOK

Change at schools is constant. Community and policy actors make reform efforts, publishers push products, and school leaders often latch onto the latest scheme that promises to address the challenges in front of them. I’ve written this book to shift the focus of dialogue from problem solving to solution seeking.

The core of this book is organized around what I call phases of the design cycle, typically consuming one academic year. They are the kick-off, need finding, synthesis, brainstorming, prototyping, and implementation. In doing so, I have drawn on the approach advocated by the Hasso

Plattner Institute of Design (Empathize, Define, Brainstorm, Prototype, Test) and adapted it to fit the school context. I start with kickoff, because every design cycle begins with framing a challenge and assembling a design team. Then comes need finding, the term I chose because it involves understanding the unmet needs of people in the schools. Yes, need finding includes being empathetic to others, but there are additional ways to uncover people's needs that don't involve empathy, which I'll describe. The need finding phase yields much data for a design team, and thus it needs to be synthesized so teams can better gain insights from it. Once team members have synthesized the results from the need finding work, they are prepared to brainstorm solutions for their challenge. Brainstorming in design thinking is purposeful (and fun). It sets the stage for teams to select from among their many options the best ones to prototype. Prototyping is where you get to make your ideas real; then in the implementation phase you get to test them out to see which to keep and which to improve. Each chapter includes tools and assessments for completing key steps in each phase. To illustrate how the phases build on each other, you can follow the case of Lori Mills, principal of Jackson Elementary, throughout the book as she tackles the large challenge of making her school more student-centered. Mills is a composite of several school leaders I have worked with to incorporate design thinking in their improvement efforts. However, I have also included the stories of real leaders to illustrate how they can use design thinking to create better learning experiences for their students and, in some instances, to radically shift the entire culture of the school.

How do teams go through the steps, and what's the time commitment for each of these steps? Well, that depends of course on the complexity of the challenge, the size and cohesiveness of the design team, when members join the team, and the time periods during which the team schedules its work. Let's assume for the moment that you are the one kicking everything off—you've read this book and you've decided to form a team. How long does it take in terms of meetings? (This is not counting the mindshare you'll devote in other parts of your day. I'll warn you: design thinking turns you into a noticer. Once you understand

how to frame problems, see unmet needs, and consider new solutions you may never see any common situation the same way again. So, while you'll devote time to the work of a specific project, you'll also be thinking about that work all the time.) To answer this question, I've included a rough estimate of time for each step in each of the six design thinking phases in this guide.

Each chapter also includes a discussion of obstacles leaders are likely to face in each phase of the design cycle and ways that they can be more effective. In the final chapter, I discuss the positive changes that school leaders experience when they practice design thinking.

Last, I've included two appendices. The first is "40+ Ways to Get to Know Your Students." This book has an overarching focus on students as participants, or codesigners, in the school change process. In the chapters that follow, you'll see that by getting to know your students better through empathetic conversations, shadowing, and glimpses into their everyday lives through photo studies, you gain insight on how to improve their lives. I describe these three approaches (conversations, shadowing, and photo studies) in detail so you can carry them out in your school. And the ways in which you can get to know your students are not limited to those three methods. Over the last several years, through discussions with my design thinking students and with educators across the United States and the world, I've curated a list of ways you can further get to know your students. Use the list to inspire your thinking on easy ways the adults in your school can be more attuned to what the lives of your students are like.

The second appendix contains an example of an Empathetic Interview Exercise. As you'll soon learn, empathetic conversations are a workhorse in the stable of tools available to you in the design thinking process. In this appendix I provide frameworks and sample question guides to take you through the process of holding productive and lively empathetic conversations.

Now let's get started.